# Subject Pronouns in Child Spanish and Continuity of Reference

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## 1. Introduction

Contemporary research has revealed a pattern that shows later development and earlier attrition of linguistic features at the interface between syntax and other domains, such as discourse, as compared to features regulated by syntax alone (Sorace, 2005). Spanish subject pronouns offer an excellent test case for this "interface hypothesis" because they are regulated by both syntactic rules and discourse constraints. Research on second language acquisition has confirmed that learners acquire the syntax of Spanish subject pronouns before developing sensitivity to discourse-pragmatic factors that influence the use of overt vs. null subject pronouns in contexts where either option is grammatical (Montrul & Rodríguez Louro, 2006; Rothman, 2007). To complement research with second language learners, it is necessary to investigate this development in monolingual learners, but research on monolingual first language acquisition of null subject languages has primarily focused on the alternation between null and overt subjects, both lexical and pronominal, not subject *pronouns* specifically. Furthermore, the research has been inconclusive regarding the interface hypothesis. On the one hand, favoring the interface hypothesis, children's underproduction of overt subjects when acquiring languages such as Italian, Portuguese, Spanish, and Catalan has been attributed to a lack of discourse sensitivity. However, such children seem to acquire the syntax of null subjects very early (Grinstead, 2004; Valian, 1991; Valian & Eisenberg, 1996). On the other hand, even though children omit more subjects than adults do, their selection between overt and null NPs appears to be influenced by discourse-pragmatic factors even during the earliest stages of observable syntax. The more accessible a referent is, the more likely it is that children will omit arguments (Allen, 2000; 2007; Clancy, 1997; Paradis & Navarro, 2003; Serratrice, 2005; Skarabela, 2007). This implies that syntax-discourse interface features regulating overt lexical NP use are acquired early. Pronouns, however, are more difficult for children to master than lexical NPs since they do not have fixed referents. Thus, it is likely that syntax-discourse interface features involving pronouns emerge later than those involving full lexical NPs.

In this study we examine the development of a syntax-discourse interface feature in monolingual first language acquisition of Spanish, namely the influence of Continuity of Reference ('Continuity') on subject pronoun expression. Continuity, which is one of the most powerful variables that influence adult Spanish speakers' choice to include or omit a subject pronoun,[1] refers to whether the verb maintains the same subject as the previous verb (*same-reference*) or changes it (*switch-reference*). To illustrate how Continuity functions, we present excerpts of sociolinguistic interviews from the Otheguy-Zentella corpus of *The CUNY Project on the Spanish of New York*.[2] English pronouns in parentheses correspond to Spanish null subjects (represented by Ø). Relevant pronouns are in boldface. A and B indicate the turns of the interviewer and the participant, respectively.

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[1] Other important linguistic variables that influence Spanish subject pronoun expression are: person/number; tense/mood/aspect; lexical content of the verb; and clause type (Otheguy *et al.*, 2007).

[2] The corpus was developed by Ricardo Otheguy (CUNY Graduate Center) and Ana Celia Zentella (University of California, San Diego) with support from NSF. We thank Professors Otheguy and Zentella, and NSF, for use of these data. The number at the end of the example refers to the number given to the participant's transcript.

(1)  **A.** *¿Tu papá terminó su licenciatura?* **B.** *Nada más. Ø Se dedicó a otras cosas, de hecho Ø*
*trabajó poco tiempo en su carrera y ya después Ø se dedicó a otras actividades.* (308M)
**A.**Your father finished his degree? **B.** Nothing more. **(He)** devoted himself to other things, in fact
**(he)** worked for a short while in his field and later **(he)** devoted himself to other activities.

In the excerpt above, the subject of *terminó, se dedicó, trabajó,* and *se dedicó* is the same: the participant's father. After the subject is introduced, subsequent references in same-reference contexts are made with null pronouns. Now consider the switch-reference context in example (2).

(2)  *Ella tenía su novio allá y él pensaba venir pero no le dieron la visa.* 038C
She had her boyfriend there and he planned on coming, but they didn't give him the visa.

The subject of *pensaba* is different from that of the previous verb, *tenía,* and overt pronoun *él* appears in this switch-reference context. Corpus studies show that adult speakers of Spanish consistently use overt pronouns more often in switch-reference than same-reference contexts (Bentivoglio, 1983; 1987; Cameron, 1992; 1993; 1995; Enríquez, 1984; Flores-Ferrán, 2002; 2004; Otheguy *et al*., 2007; Silva-Corvalán, 1994). Averaging across studies of Spanish in four cities (Madrid/San Juan: Cameron, 1995; New York: Otheguy-Zentella corpus; Los Angeles: Silva-Corvalán, 1994), adults produce about 40% overt subject pronouns in switch-reference contexts and 21% overt subject pronouns in same-reference contexts. While rates of overt pronoun use vary according to dialect and degree of bilingualism, Continuity influences pronoun use among all types of adult speakers.[3] Continuity has also been found to influence pronoun use among bilingual children in Los Angeles (Bayley and Pease-Álvarez, 1996). But Continuity has not been studied for *monolingual* Spanish-speaking children. The goal of the current study is to determine when monolingual children become sensitive to the Continuity variable.

## 2. Our study

In this study we sought to complement the Spanish corpora studies with an experimental study of the effects of Continuity on subject pronoun preferences in monolingual Spanish-speaking adults and children. We focused on third person singular pronouns because third person referents are more difficult to track than first/second person referents. While the latter are almost always present in the extralinguistic context, the former are often absent. Also, there are often competing referents for third person pronouns, but not usually for first/second person. Since reference tracking is easier in the first/second person, linguistic mechanisms such as the use of overt pronouns in switch-reference contexts are most relevant for reference to third person entities. The isolation of third person is also supported by the observation that many languages use morphological markers to formally distinguish between first/second and third person (Benveniste, 1971, p. 221; Harley & Ritter, 2002, p. 488). We excluded third person plurals because overt plural pronouns are much rarer than overt singulars, and Continuity has less influence on the use of plural subject pronouns as compared to singular subject pronouns (Cameron, 1992, pp. 252-254; Flores-Ferrán, 2002, p. 82). Since ambiguous verbal morphology affects pronoun use (Otheguy *et al*, 2007), we only included verbs in the present simple indicative tense, which has different verb endings for different grammatical persons.

Our study was designed to answer the following two research questions: 1. Is the adult preference pattern for overt third person singular pronouns in same- and switch-reference contexts demonstrable in an experimental paradigm? 2. When do Spanish-speaking children's pronoun preference patterns become the same as those demonstrated by adults?

### 2.1. Participants

Adult monolingual Spanish-speaking participants were recruited from the University of Querétaro in Querétaro, Mexico. Child and teenage monolingual Spanish-speaking participants were recruited

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[3] Continuity remains a strong predictor of bilingual adults' pronoun use, even though bilinguals appear to be less sensitive to Continuity than monolinguals (Montrul, 2004; Shin & Otheguy, 2009).

from a school, also in Querétaro. Table 1 presents the total number of these participants, as well as mean ages and the distribution of females and males.

Table 1. Participants, by age groups

| Grade | Age Group | N participants | Mean Age | Males | Females |
|-------|-----------|----------------|----------|-------|---------|
| Adults | Adults | 30 | 21;5 | 14 | 16 |
| First | 7 | 30 | 6;8 | 12 | 18 |
| Third | 9 | 28 | 9;2 | 14 | 14 |
| Fifth | 11 | 32 | 11;0 | 16 | 16 |
| Seventh | 13 | 20 | 12;8 | 9 | 11 |
| Ninth | 14/15 | 29 | 14;7 | 8 | 21 |
| Total | -- | 169 | -- | 73 | 96 |

## 2.2. Experimental Materials

The experimental items consisted of stories that were presented verbally. The stories were acted out using dolls to ensure that the intended referents of pronouns were clear. The stories were composed of three sentences, as in (3). The first sentence introduced a male and a female character[4] (with full lexical NPs), and in the second sentence, one of the characters performed an activity. The referent of the subject of the third sentence varied to create same-reference (X = Maria) or switch-reference (X = Jose) contexts. Half the items were same-reference; half were switch-reference.

(3) *María y José cantan canciones. María canta una ranchera. Luego **X** canta la de Pimpón.*
    Maria and José sing songs. Maria sings a ranchera. Later X sings the one about Pimpon.

Participants were verbally presented with two options for the third sentence, one containing a null and one an unstressed[5] overt subject pronoun. So for a same-reference context, the last sentence in (3) was presented as (4a), and for a switch-reference context, the last sentence in (3) was presented as (4b).

(4a) *Luego ella canta la de pimpón o   Luego Ø canta la de Pimpón.*
    Later she sings the one about pimpon  or  Later Ø sings the one about Pimpon.
(4b) *Luego él canta la de pimpón o   Luego Ø canta la de Pimpón.*
    Later he sings the one about pimpon  or  Later Ø sings the one about Pimpon.

Participants were asked which version of the third sentence sounded better. In half the items, the overt pronoun was presented first, as in (4a) and (4b). In the other half, the null pronoun was presented first.[6]

## 2.3. Procedure

Participants were tested individually, and were told that there were no incorrect responses. The notion of variability was presented in a training session by discussing how one way of saying something sometimes sounds better than another. Two versions of a sentence were presented, and particpants were asked to choose which version sounded better. Next participants completed three practice stories modeled after the experimental items. If necessary, feedback was given about the

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[4] All experimental items included characters of different genders. This was done so that reference to the dolls was always clear.  The use of the dolls also helped establish clear referents.
[5] Stress affects reference interpretation (Baauw, Ruigendijk, & Cuetos, 2004). Since we wanted to know if the unstressed overt pronoun by itself is preferred for switch-reference, overt pronouns were unstressed in the stories.
[6] Some participants employed a recency strategy by selecting the last option presented to them, rather than comparing the two options. Data collected from these participants were excluded from the analyses. Table 1 does not include participants whose data were excluded.

nature of the task. Participants were then presented with 24 stories, which included 12 experimental (six items per discourse context) and 12 filler items. The filler items followed the same pattern as the experimental items, except participants chose between subject-verb and verb-subject word order for the third sentence. Sessions were recorded with a digital audio recorder and lasted about 15 minutes.

## 2.4. Results

Adults preferred overt third person singular (3sg) pronouns at a much higher rate in switch-reference (83%) than in same-reference contexts (27%). Children of all age groups also preferred overt 3sg pronouns at higher rates in switch- than in same-reference contexts. This preference increased with age, but it was not until age 14/15 that the preference matched that of the adults. For same-reference contexts, none of the child groups matched the adult preference pattern, demonstrating a tendency to overaccept overt 3sg pronouns. Table 2 presents the preference rates for each age group.

Table 2. Means of overt 3sg pronoun responses by discourse context for six age groups (highest possible score = 6)

| Age | Switch-reference | | | Same-reference | | |
|---|---|---|---|---|---|---|
| | Mean | % | Std. | Mean | % | Std. |
| Adults | 5.00 | 83 | 1.41 | 1.63 | 27 | 1.73 |
| 7 | 3.07 | 51 | 2.07 | 2.43 | 41 | 1.72 |
| 9 | 3.82 | 64 | 1.49 | 3.07 | 51 | 1.82 |
| 11 | 3.91 | 65 | 1.61 | 2.78 | 46 | 1.95 |
| 13 | 3.85 | 64 | 1.69 | 2.95 | 49 | 1.76 |
| 14/15 | 5.03 | 84 | 1.15 | 2.48 | 41 | 1.57 |
| Average | 4.12 | 69 | 1.73 | 2.53 | 42 | 1.80 |

A 6 (Age Group) x 2 (Continuity) x 2 (Sex) ANOVA showed a significant effect of Continuity, [$F$(1, 145)=133.85, $p$<.0001], demonstrating that same- and switch-reference contexts had significantly different effects on pronoun selection for the participants when analyzed as one whole group. No other main effect was significant. The interaction Age Group x Continuity was significant [$F$(5, 145)=13.31, $p$<.0001], demonstrating that the influence of Continuity on pronoun selection significantly changes with age. No other interaction was significant.

Our first research question was whether the effects of Continuity found in studies of adult Spanish corpora would be demonstrable in an experimental paradigm. A paired sample $t$-test comparing adults' selection of overt 3sg pronouns in switch-reference (83%) to their selection of overt 3sg pronouns in same-reference (27%) indicated that the difference between same- and switch-reference was significant [$t$(29)=8.61, $p$<.0001]. Thus, our results support those of adult Spanish corpora, showing that adults strongly prefer overt 3sg pronouns in switch-reference, while avoiding overt 3sg pronouns in same-reference. Our results also show that this effect is even more apparent in an experimental paradigm, since we were able to control other influential variables, such as verb morphology.

The second research question focused on sensitivity to Continuity among Spanish-speaking children. The same paired-sample $t$-test described above was performed for each age group. For seven-year-olds, the difference between selection of overt 3sg pronouns in switch- (51%) and same-reference (41%) was not significant [$t$(29)=1.92, $p$=.07]. For all other age groups, this difference was significant [age nine: $t$(27)=2.77, $p$=.01; age 11: $t$(31)=3.09, $p$=.004; age 13: $t$(19)=2.93, $p$=.009; and age 14/15: $t$(28)= 7.97, $p$<.0001]. These results indicate that the difference between switch- and same-reference contexts for overt 3sg pronoun selection appears to emerge between seven and nine years of age.

## 2.4.1. Investigating each discourse context

The omission of overt 3sg pronouns in switch-reference can make it difficult to identify a unique referent, whereas the inclusion of overt 3sg pronouns in same-reference contexts adds redundancy. The

tendency to include a pronoun to avoid ambiguity is functionally more important than the tendency to omit a pronoun where it is redundant, insofar as we interpret function in discourse as related to the ability to communicate a message. This difference between same- and switch-reference contexts suggests it is necessary to analyze each context in isolation. The adult preference patterns support this idea, since the preference for overt 3sg pronouns in switch-reference (83%) was numerically greater than their preference for null 3sg pronouns in same-reference (73%, the inverse of their selection of overt pronouns). It appears, then, that the preference for overt pronouns in switch-reference is stronger than the avoidance of overt pronouns in same-reference. Therefore, we further analyzed our data to investigate the preferences for each discourse context in isolation.

First we look at the preference pattern for overt 3sg pronouns in switch-reference contexts, demonstrated by Figure 1.

Figure 1. Percents of overt and null 3sg pronouns in switch-reference contexts by age groups
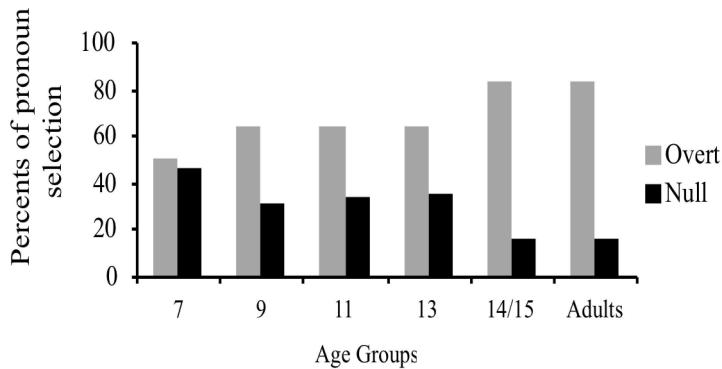


The question we need to ask is at what age is the selection of overt 3sg pronouns in switch-reference contexts greater than chance. Since participants were presented with six choices in each context, we ran single sample $t$-tests to see at what ages the choice of overt 3sg pronouns differs significantly from three. Results for the six age groups were as follows: 7-year-olds, $t(29)=.18$, $p=.861$ (ns); 9-year-olds, $t(27)=2.91$, $p=.007$; 11-year olds, $t(31)=3.18$, $p=.003$; 13-year olds, $t(19)=2.24$, $p=.037$; 14/15-year-olds, $t(28)=9.54$, $p<.0001$; adults, $t(29)=7.75$, $p<.0001$. Thus, sensitivity to switch-reference contexts appears to emerge between the ages of seven and nine. This is the same age when sensitivity to the difference between the same- and switch-reference contexts emerges, as discussed above.

For same-reference contexts the relevant question is at what age is the selection of null 3sg pronouns greater than chance. Results are different from those relating to switch-reference contexts. Figure 2 shows that none of the children were as sensitive to same-reference contexts as the adults.

Figure 2. Percents of overt and null 3sg pronouns in same-reference contexts, by age groups
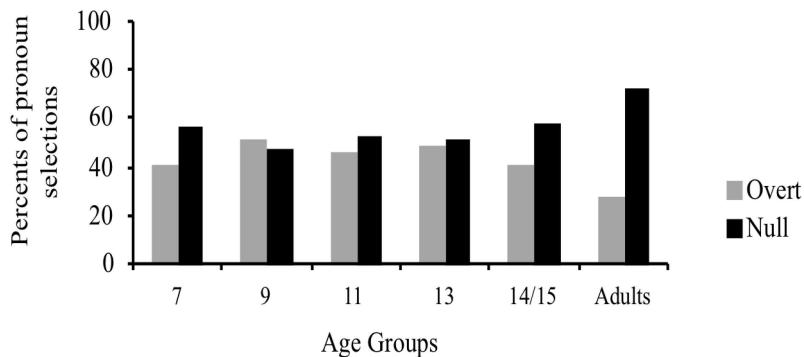
A series of single-sample *t*-tests confirms this impression: 7-year-olds, $t(29)=1.38$, $p=.177$ (ns); 9-year-olds, $t(27)=-.51$, $p=.617$ (ns); 11-year-olds, $t(31)=.46$, p=.651 (ns); 13-year-olds, $t(19)=.13$, $p=.900$ (ns); 14/15-year-olds, $t(28)=1.68$, $p=.105$ (ns); adults, $t(29)=4.22$, $p<.0001$. In fact, the nine-year-olds preferred overt over null 3sg pronouns in same-reference contexts.

### 2.4.2. Summary of results

Our results indicate strong effects of Continuity on 3sg pronoun selection in adult monolingual Spanish. The adult preference for overt 3sg pronouns in switch-reference was stronger than the preference for null 3sg pronouns in same-reference contexts. Analyses of child monolingual Spanish demonstrated that sensitivity to switch-reference emerged after age seven. From age nine on this preference was significant, but it was not until ages 14/15 that the percentage of overt 3sg pronoun responses numerically reached the adult level. The preference for null 3sg pronouns in same-reference followed a different trajectory: even the 14/15-year-olds' preference for null 3sg pronouns in same-reference did not reach the level of the adult preference.

## 3. Discussion

Our study investigated the development of a syntax-discourse interface feature involving the alternation between overt and null Spanish 3sg subject pronouns. First, we wanted to find out if the effect of Continuity on overt and null subject pronouns previously observed in corpora of speech produced by Spanish-speaking adults would be evident in an experimental paradigm. Second, we wanted to know when such sensitivity to Continuity would emerge in monolingual Spanish-speaking children. Our goal was also to provide additional information about the development of interface features in monolingual first language acquisition.

Since we found that adults strongly preferred overt 3sg pronouns in switch-reference contexts and null 3sg pronouns in same-reference contexts, our experimental research complements findings from corpora studies of Spanish. The adult preference for overt 3sg pronouns in switch-reference contexts in our study (83%) reveals a stronger influence of Continuity than the rates reported for overt pronoun use in switch-reference contexts in adult Spanish corpora (averaging about 40%). This suggests that the effects of switch-reference are more detectable in an experimental setting where other variables that influence the alternation of overt vs. null subject pronouns can be controlled.

Our results show that sensitivity to Continuity emerges around age nine. This finding supports the interface hypothesis since the syntactic knowledge underlying overt and null pronoun use is in place well before this age. In fact, age nine seems to be a particularly late age for a feature of language to emerge, suggesting that syntax-discourse interface features involving *pronouns* develop later than syntax-discourse interface features involving lexical NPs. In order to explore why this might be so, we address the communicative functions underlying the adult preference for overt 3sg pronouns in switch-reference contexts and null 3sg pronouns in same-reference contexts. These preferences are part of a general phenomenon related to the impact of Continuity on form selection; however, the pronoun preferences in each discourse context fulfill different functions in communication. Infelicitous null 3sg pronouns in switch-reference can result in ambiguity, impeding communication. Thus, the preference for overt 3sg pronouns in switch-reference represents an ability to use referring expressions that are sufficiently informative for the interlocutor to easily locate the referent. The preference for null 3sg pronouns in same-reference contexts, on the other hand, represents an ability to avoid redundancy. The cognitive skills underlying the ability to avoid ambiguity are likely to be very different from those that underlie the ability to avoid redundancy. While we refer to both preference types as aspects of Continuity, it is important that we recognize the differences between them, especially as we investigate the development of these preferences in language acquisition. This is an observation that has been lacking from the variationist literature on overt and null Spanish subject pronouns. Thus, one benefit of our experimental methodology is that it was sufficiently sensitive to reveal a clear difference between the two discourse contexts. To further our understanding of the development of each preference type, we discuss each preference separately.

*3.1. Sensitivity to switch-reference: Age 9*

We find that the most dramatic change in the development of sensitivity to switch-reference occurs between the ages of seven and nine. To interpret this developmental pattern, we first must consider why mature speakers prefer overt 3sg pronouns in switch-reference. As discussed earlier, pronoun omission in switch-reference can result in ambiguity. Consider the following comment from a participant in our study who strongly preferred overt pronouns in switch-reference contexts.

(5) *Cuando no se da a entender lo que se quiere decir… y no entiendes todo lo que te quieren decir…por ejemplo estás hablando de María, pues Ø se cayó. Puede ser la otra persona. Se tiene que decir 'él' para saber que se refiere a la otra persona.*

When what you want to say isn't clear… and you don't understand everything they want to tell you… for example you're talking about Maria, well (she or he) fell. It can be the other person. One has to say 'he' in order to know that it refers to the other person.

This comment illustrates that overt pronouns in switch-reference contexts help avoid ambiguity, and mature speakers are aware of the need to avoid ambiguity. Thus, we interpret our results for switch-reference within the context of how the ability to refer unambiguously develops in first language acquisition.

The age at which sensitivity to switch-reference emerges, age nine, is an important milestone in the development of referring expressions. Prior to age eight or nine, children often produce pronouns without first establishing a clear referent (Barriga Villanueva, 2002; Kail & Sánchez y López, 1997; Piaget, 1959; Peterson, 1993; Peterson & Dodsworth, 1991; Rossi *et al*, 2000). Such a tendency is evident in the following narrative, collected from a participant in our study. Subject, object, and possessive pronouns relevant to the discussion are in boldface. Null subject pronouns are signaled by the Ø symbol. Pronouns in parentheses in the English version correspond to null subject pronouns in the original Spanish version.

(6) *Había una vez un puerquito que se llamaba José y otro Carlos. Un día Ø le invita a su casa. Después se sentaron en el tapete a platicar. Después Ø lo invitó a su cuarto y dibujaron. También Ø le mostró muchos juguetes que Ø tenía.*

Once upon a time there was a little pig called José and another Carlos. One day **(he)** invited **him** to **his** house. Then (they) sat on the rug to chat. Then **(he)** invited **him** to **his** room and (they) drew. **(He)** also showed **him** many toys that **(he)** had.

Notice that the referents of the pronouns in boldface are all ambiguous; the interlocutor cannot figure out to whom the nine 3sg singular pronouns refer.

A phenomenon similar to the production of ambiguous pronouns is children's use of definite articles in contexts where adults would use indefinite articles (Brown, 1973, p. 353; Kail & Sánchez y López, 1997; Maratsos, 1976, p. 96). An example of this, from Brown (1973, p. 354), is provided in (7).

(7) <u>Child</u>: *"Put it up"* **the** *man says.* <u>Mother</u>: *Who's the man?*

Adults tend to use the definite article for accessible referents, but not for NPs whose referents have not been previously established. The mother's response in (7) demonstrates this: she expected 'the man' to have an accessible, previously established referent.

These two phenomena, ambiguous pronouns and the overuse of definite NPs, appear to be related. Both represent the use of forms that do not correspond to the accessibility of the intended referent, and both tend to dwindle in usage at around age eight or nine (de Weck 1991; Kail & Sánchez y López, 1997; Karmiloff-Smith, 1979, 1986; Piaget, 1959), suggesting that this is when children's sensitivity to interlocutors' needs is developed enough so that referring expressions can be used appropriately.

### *3.2. Same-reference contexts and redundancy in child language*

We find that the adult-like preference for null pronouns in same-reference contexts emerges even later than the preference for overt pronouns in switch-reference contexts. Seven-year-olds preferred null pronouns in same-reference contexts, but nine-year-olds preferred overt pronouns. This overacceptance of overt pronouns in same-reference contexts that emerged at the age of nine slowly decreased with age, but none of the child participants' pronoun selection in same-reference contexts was significant.

It is possible that there is a relationship between the overacceptance of overt pronouns in same-reference contexts and the onset of sensitivity to switch-reference, since these two phenomena emerge at around the same age (age nine). Perhaps an increased awareness of how overt pronouns assist in the avoidance of ambiguity triggers a general tendency to err on the side of caution and to select forms with more information than necessary. This explanation is supported by studies on the development of communication skills, which show that as children become more adept at providing sufficient information for referent identification, their NPs become increasingly redundant (Ford & Olson, 1975; Sonnenschein, 1985; Whitehurst, 1976). In other words, when children learn that they have to give their interlocutor more information, they might go through a phase during which they give too much information. More work on children's production data is needed to investigate whether our results for same-reference contexts are indeed related to redundancy in child language.

## 4. Conclusion

Our study tracks the development of sensitivity to Continuity as a predictor of preferences for overt and null 3sg subject pronouns in Spanish. Our results support the interface hypothesis since we found that this syntax-discourse interface feature emerges very late in monolingual language development. The age eight/nine milestone identified for the preference for overt 3sg pronouns in switch-reference contexts was particularly revealing since this is the same age at which there is a decrease in the production of infelicitous definite NPs and ambiguous pronouns. Thus, it appears that the development of 3sg pronoun selection in switch-reference is related to the developing ability to provide interlocutors with sufficient referent-tracking information. On the other hand, more research is needed to clarify this relationship between a preference for overt pronouns in switch-reference contexts and the mature use of other referring expressions. Such a connection would be clearer if we could systematically show that the same children who prefer null pronouns in switch-reference contexts also produce ambiguous pronouns and infelicitous definite NPs.

More research is also needed to explore our finding that, from nine-years-old on, children overaccepted redundant pronouns. Research on monolingual Italian children's overt and null subject pronouns has also revealed an overacceptance of redundant overt subject pronouns (Serratrice, 2007; Sorace *et al.*, in press). We suspect that these results reflect older children's general tendency to include redundant information, but more research is needed to explore this idea. Thus, future research on the effects of Continuity on overt and null 3sg pronouns in Spanish-speaking children's naturalistic production would greatly add to our understanding of the development of subject pronoun use.

## References

Allen, S. (2000). A discourse-pragmatic explanation for argument representation in child Inuktitut. *Linguistics*, 38, 483-521.

Allen, S. (2007). Interacting pragmatic influences on children's argument realization. In M. Bowerman & P. Brown (Eds.). *Crosslinguistic perspectives on argument structure: Implications for learnability* (pp. 191-210). Mahwah, NJ: Erlbaum.

Baauw, S., Ruigendijk, E., & Cuetos, F. (2004). The interpretation of contrastive stress in Spanish-speaking children. In J. van Kampen & S. Baauw (Eds.). *Proceedings of GALA 2003* (pp. 103-114). Utrecht: LOT Occasional Series.

Barriga Villanueva, R. (2002). *Estudios sobre el habla infantil en los años escolares… un solecito calientote*. Mexico City: El Colegio de México.

Bayley, R. & Pease-Álvarez, L. (1996). Null and expressed pronoun variation in Mexican-descent children's Spanish. In J. Arnold, R. Blake, B. Davidson, S. Schwenter, & J. Solomon (Eds.). *Sociolinguistic variation: Data, theory, and analysis* (pp. 85–99). Stanford: Center for the Study of Language and Information.

Bentivoglio, P. (1983). Topic continuity and discontinuity in discourse: A study of spoken Latin American Spanish. In Givón, T. (Ed.), *Topic continuity in discourse: A quantitative cross-language study* (pp. 255-311). Philadelphia: John Benjamins.

Bentivoglio, P. (1987). *Los sujetos pronominales de primera persona en el habla de Caracas*. Caracas: Universidad Central de Venezuela.

Benveniste, E. (1971). The nature of pronouns. *Problems in general linguistics* 1, 217-222.

Brown, R. (1973). *A first language. The early stages.* Cambridge, Mass.: Harvard University Press.

Cameron, R. (1992). *Pronominal and null subject variation in Spanish: constraints, dialects, and functional compensation*. Unpublished doctoral dissertation. University of Pennsylvania.

Cameron, R. (1993). Ambiguous agreement, functional compensation, and nonspecific tú in the Spanish of San Juan, Puerto Rico, and Madrid, Spain. *Language Variation and Change*, 5, 305-34.

Cameron, R. (1995). The scope and limits of switch-reference as a constraint on pronominal subject expression. *Hispanic Linguistics*, 6/7, 1-27.

Clancy, P. (1997). Discourse motivations of referential choice in Korean acquisition. In H. Sohn & J. Haig (Eds.), *Japanese/Korean Linguistics*, 6, 639-59.

de Weck, G. (1991). *La cohésion dans les textes d'enfants.* Neuchâtel, Switzerland: Delachaux-Niestlé.

Enríquez, E. (1984). *El pronombre personal sujeto en la lengua española hablada en Madrid.* Madrid: Consejo Superior de Investigaciones Científicas.

Flores-Ferrán, N. (2002). *A sociolinguistic perspective on the use of subject personal pronouns in Spanish narratives of Puerto Ricans in New York City.* Munich: Lincom-Europa.

Flores-Ferrán, N. (2004). Spanish subject personal pronoun use in New York City Puerto Ricans: Can we rest the case of English contact? *Language Variation and Change*, 16, 49-73.

Ford, W. & Olson, D. (1975). The elaboration of the noun phrase in children's description of objects. *Journal of Experimental Child Psychology,* 19, 371-382.

Grinstead, J. (2004). Subjects and interface delay in child Spanish and Catalan. *Language,* 80(1), 40-72.

Harley, H. & Ritter, E. (2002). A feature-geometric analysis of person and number. *Language* 78(3), 482-526.

Kail M., & Sánchez y López, I. (1997). Referent introductions in Spanish narratives as a function of contextual constraints: a crosslinguistics perspective. *First Language*, 17, 103-130.

Karmiloff-Smith, A. (1979). *A functional approach to child language.* Cambridge: Cambridge University Press.

Karmiloff-Smith, A. (1986). Some fundamental aspects of language development after age 5. In P. Fletcher & M. Garman (Eds.). *Language acquisition* (pp. 455-474). Cambridge: Cambridge University Press.

Maratsos, M. (1976). *The uses of definite and indefinite reference in young children: An experimental study of semantic acquisition.* Cambridge: Cambridge University Press.

Montrul, S. (2004). Subject and object expression in Spanish heritage speakers: A case of morpho-syntactic convergence. *Bilingualism: Language and Cognition* 7, 125-142.

Montrul, S. & Rodríguez-Louro, C. (2006). Beyond the syntax of the Null Subject Parameter. A look at the discourse-pragmatic distribution of null and overt subjects by L2 learners of Spanish. In Torrens, V. & Escobar, L. (Eds.), *The acquisition of syntax in Romance Languages* (pp. 401-418). Amsterdam: John Benjamins.

Otheguy, R. & Zentella, A.C., The City University of New York project on the Spanish of New York. Unpublished raw data.

Otheguy, R., Zentella, A.C. & Livert, D. (2007). Language and dialect contact in Spanish in New York: Towards the formation of a speech community. *Language,* 83, 770-802.

Paradis, J. & Navarro, S. (2003). Subject realization and crosslinguistic interference in the bilingual acquisition of Spanish and English: What is the role of the input? *Journal of Child Language,* 3, 371-93.

Peterson, C. (1993). Identifying referents and linking sentences cohesively in narration. *Discourse Processes*, 16, 507-524.

Peterson, C. & Dodsworth, P. (1991). A longitudinal analysis of young children's cohesion and noun specification in narratives. *Journal of Child Language,* 18, 397-415.

Piaget, J. (1959). *The language and thought of the child.* Canada/U.S.: Routledge.

Rothman, J. (2007). Pragmatic solutions for syntactic problems: Understanding some L2 syntactic errors in terms of discourse-pragmatic deficits. In Baauw, S., Drijkoningen, F., Pinto, M. (Eds.), *Romance Languages and Linguistic Theory 2005 Selected papers from Going Romance. Current Issues in Linguistic Theory 29 (*pp. 299-320). John Benjamins: Amsterdam.

Rossi, F., Pontecorvo, C., López-Orós, M., & Teberosky, A. (2000). Referential development in storytelling and in storywriting of Catalan and Italian Children. *Language and Education,* 14, 164-183.

Serratrice, L. (2005). The role of discourse pragmatics in the acquisition of subjects in Italian. *Applied Psycholingusitics*, 26, 437-462.

Serratrice, L. (2007). Cross-linguistic influence in the interpretation of anaphoric and cataphoric pronouns in English-Italian bilingual children. *Bilingualism: Language and Cognition,* 10, 225-238.

Shin, N.L., & Otheguy, R. (2009). Shifting sensitivity to Continuity of reference: Subject pronoun use in Spanish in New York City. In M. Lacorte & J. Leeman, (Eds.). *Español en Estados Unidos y en otros contextos: Cuestiones sociolingüísticas, políticas y pedagógicas.* Madrid: Iberoamericana.

Silva-Corvalán, C. (1994). *Language contact and change*. New York: Oxford University Press.

Skarabela, B. (2007). Signs of early social cognition in children's syntax: The case of joint attention in argument realization in child Inuktitut. *Lingua*, 117, 1837-1857.

Sonnenschein, S. (1985). The development of referential communication skills: Some situations in which speakers give redundant messages. *Journal of Psycholinguistic Research*, 14, 489-508.

Sorace, A. (2005). Selective optionality in language development. In Cornips, L. & Corrigan, K.P. (Eds.), *Syntax and Variation* (pp. 55-80). Amsterdam: John Benjamins.

Sorace, A., Serratrice, L., Filiaci, F., Baldo, M. (in press). Discourse conditions on subject pronoun realization: testing the linguistic intuitions of older bilingual children. To appear in *Lingua*.

Valian, V. (1991). Syntactic subjects in the early speech of American and Italian children. *Cognition*. 40, 21-81.

Valian, V. & Eisenberg, Z. (1996). The development of syntactic subjects in Portuguese-speaking children. *Journal of Child Language*. 23, 103-128.

Whitehurst, G.J. (1976). The development of communication: Changes with age and modeling. *Child Development*, 47, 473-482.

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