How L1 Acquisition in Situations of Contact Drives Long-Term Language Change

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1. Introduction

Languages exhibit sociolinguistically conditioned variation that tends to change over time, especially in situations of contact. The emerging field of developmental sociolinguistics (Miller, 2019; Nardy *et al.*, 2013) promises to clarify, not only how children acquire these variable patterns, but also how they participate in changing those patterns when different communities come into contact. This paper looks at a well-studied variable in Spanish: the alternation between null and overt subject personal pronouns, or Subject Pronoun Expression (SPE, Carvalho *et al.* 2015; Flores-Ferrán 2007). We look at how children raised in a situation of contact between two different varieties of Spanish acquire this variable, in comparison to children exposed to a single variety.

Subject personal pronouns in Spanish may be either null or overt (1), and the likelihood of each variant depends on a number of linguistic and social factors that vary from community to community (Flores-Ferrán, 2007; Carvalho *et al.*, 2015).

(1)   Juan le pega a Pedro y después ø/él se va.
       Juan hits Pedro and then *pro*/he leaves.

One of the strongest and most consistent conditioning factors is reference. Across the Spanish-speaking world, speakers are more likely to use the null variant in 'same-reference' environments, where the pronoun refers to the preceding subject antecedent (ex. *Juan* in example (1)), relative to 'switch-reference' environments, where the pronoun refers to any other antecedent (ex. the preceding object *Pedro*). However, not all varieties distinguish between same- and switch-reference to the same degree, and not all varieties use null and overt variants with the same overall frequency. This raises the question of how children exposed to more than one variety decide how often and in which contexts to produce null and overt subject pronouns. This paper therefore addresses two research questions:

1. *How do children acquire patterns of Subject Pronoun Expression (SPE) in Spanish (overall frequency and conditioning based on reference)?*

2. *How is acquisition affected by contact between two or more varieties of Spanish?*

2. Linguistic background

Across varieties of Spanish, null and overt subject pronouns occur at different rates. As shown in Table 1, Caribbean and coastal varieties tend to have a higher rate of overt SPE, reaching as high as 44.8% in San Juan, Puerto Rico (Cameron, 1993), and mainland and Iberian varieties tend to use overt pronouns less often, ranging from 21.7% in Mexico City (Lastra & Butragueño, 2015) to 15.1% in Huancayo, Perú (Cerrón-Palomino, 2019).

Table 1. Subject pronoun expression (SPE) rates in monolingual Spanish

Spanish variety	% overt overall	same- vs. switch-reference
San Juan, PR (Cameron, 1993)	44.8	26 (31-57)
Santo Domingo, DR (Alfaraz, 2015)	42.3	19 (33-52)
Isabella, PR (Abreu, 2009)	38.0	16 (30-46)
Barranquilla, Colombia (Orozco & Guy, 2008)	35.7	19.3 (23-42.3)
Puerto Rico highlands (Holmquist, 2012)	28.0	25 (17-42)
Mexico City (Lastra & Butragueño, 2015)	21.7	13 (16.3-29.2)
Madrid, Spain (Cameron, 1993)	20.9	19 (11-30)
Yucatan, Mexico (Michnowicz, 2015)	16.0	8.9 (11-19.9)
Peruvian Andes (Cerrón-Palomino, 2019)	15.1	9.8 (9.8-19.6)

Most varieties of Spanish condition SPE on a similar set of linguistic factors, including the subject's person and/or number, the verb's tense, mood, and/or aspect, the verb's lexical class, and the subject's reference (see Carvalho *et al.* 2015; Flores-Ferrán 2007 for extensive references). For example, all varieties reported in Table 1 condition SPE on reference, with 11-33% overt expression in same-reference environments versus 19-57% in switch-reference environments. The ranking between different factors also tends to be similar across dialects (Shin & Erker, 2015); however, this does not imply that the hierarchy of constraints within factors is the same. For example, Otheguy *et al.* (2007) find that speakers of Caribbean and mainland Spanish varieties arriving in New York both ranked the pronoun's person and number above all other linguistic factors conditioning SPE; but while Caribbean speakers overtly realized 2nd singular subject pronouns most often, mainland speakers overtly realized 3rd singular subject pronouns most often. We also note that the overall frequency of overt SPE does not seem to corre-late with the strength of individual factors. For example, speakers may have high

overt SPE rates and strongly distinguish between same- and switch-reference (ex. San Juan, Puerto Rico: 44.8% overt SPE overall, with a 26%-point spread between environments), or they may have high overt SPE rates with a much weaker same/switch contrast (ex. Isabella, Puerto Rico: 38% overt, 16%-point spread), or vice-versa (ex. Puerto Rican highlands: 28% overt, 25% spread).

When Spanish comes in contact with other languages, the rate of overt pronoun expression tends to increase (see Table 2). For example, recent immigrants to New York have a lower rate of overt SPE compared to NYC-born Spanish speakers who have had more contact with English (Otheguy *et al.* 2007). While some attribute the increase in overt subjects to transfer from the non-null subject grammar of English (e.g. Otheguy *et al.* 2007), others point out that this cannot be the only explanation (Flores-Ferrán, 2004). In fact, overt SPE rates also increase upon contact with other null subject languages, such as Yucatec Maya (Michnowicz, 2015) and Veneto (Barnes, 2010), as well as borderline cases like Haitan Creole (López Ortiz, 2010). This paper examines contact between two null subject grammars: Paraguayan Spanish and Ríoplatense Spanish.

Table 2. Effect of language contact on subject pronoun expression (SPE)

location	Population comparison	% overt	same/switch contrast
English language contact			
NYC Latinos (Otheguy *et al.*, 2007)	immigrants vs. native born	**increase**	no change
NYC Puerto Ricans (Flores-Ferrán, 2004)	less vs. more English exposure	**increase**	**weaker**
Los Angeles Mex-Amer (Silva-Corvalán, 1994)	immigrants vs. native-born	no change	**weaker** for lexical NPs
NYC Latinos (Otheguy & Shin, 2009)	immigrants vs. native born	**increase**	**weaker** in 1st/2nd person
Isabella, Puerto Rico (Abreu, 2009)	monolinguals vs. bilinguals	**increase**	no change
Null subject languages			
Yucatán, Mexico (Michnowicz, 2015)	monolinguals vs. Maya speakers	**increase**	**weaker**
Chipilo, Mexico (Barnes, 2010)	monolinguals vs. Veneto speakers	**increase**	not reported
Peruvian Andes (Cerrón-Palomino, 2019)	monolinguals vs. Quechua spkrs	no change	no change
Borderline cases			
Haiti-Dom. Rep. border (López Ortiz, 2010)	monolinguals vs. Creole speakers	**increase**	**weaker**

Contact may also weaken the factor of reference, but this effect is less consistent. For example, Otheguy & Shin (2009) report that the contrast between same- and switch-reference environments is weaker in the speech of Spanish-speakers born in New York, compared to recent immigrants–but only for 1st and 2nd person pronouns, whose reference is less ambiguous than 3rd person pronouns.

In sum, the overall rate of overt SPE and the strength of conditioning factors like reference vary independently of each other across different varieties, as well as different contact situations. Contact with other languages–even other null subject languages–frequently increases the overall rate of overt pronoun expression but may or may not weaken the same/switch contrast.

3. Acquisition background

Children acquiring monolingual Spanish pass through a brief stage of exclusively null subjects before producing their first overt DP subjects at age 2 or younger (Grinstead, 2000, 2004). After age 2, children's production of overt variants and their comprehension and production of the same/switch-reference contrast varies by task. In storytelling contexts with an investigator, Mexican children produce overt subject pronouns at an overall rate of 6% at ages 6-7, gradually increasing to 11% by ages 12-16 (Shin, 2016); this is much lower than the 20% rate reported for Mexican adult-directed speech (Lastra & Butragueño, 2015). However in one-on-one interactions with caregivers, Mexican children as young as 3-6 match the frequency of overt SPE in child-directed speech (9.7% versus 10.2%, Forsythe *et al.* 2019). In both one-on-one and storytelling contexts, children produce significantly more overt pronouns in switch-reference versus same-reference environments by the ages of 4 1/2-6 (Forsythe *et al.*, 2019) and 6-7 (Shin, 2016), respectively. In felicity judgment tasks, children do not reliably associate switch-reference contexts with the overt variant until age 8-9 and do not reliably associate same-reference contexts with the null variant until well into adolescence (Shin & Cairns, 2012). However in pronoun comprehension tasks, children as young as age 4 1/2 assign a switch-reference interpretation to the overt variant, significantly more often relative to the null variant (Forsythe *et al.*, 2018). In sum, children acquiring monolingual Spanish perform differently depending on the task, but they can achieve adult-like production and comprehension of SPE in same- and switch-reference envrironments as early as age 4 1/2.

For children acquiring Spanish in situations of contact, the most common contact is with English. One would expect that pressure from the non-null subject grammar of English should result in more overt variants in Spanish, yet this is not always the case. One complicating factor is that contact tends to only affect the child's non-dominant language. For instance, English-dominant bilinguals produce more overt SPE in Spanish, compared to Spanish monolinguals (Silva-Corvalán, 2015), while Spanish-dominant bilinguals produce more non-target null subjects in English (Austin *et al.*, 2017) and are more tolerant of them in grammaticality judgment tasks (Goldin, 2020), compared to English monolinguals. For

balanced bilinguals, Liceras *et al.* (2012) report that there is not, in fact, any increase in overt SPE relative to monolingual child Spanish, suggesting that contact with English does not increase overt SPE in child Spanish even when dominance is controlled for. Furthermore, Bayley & Pease-Alvarez (1997) report that Mexican pre-teens with greater ties to the U.S. actually produce *fewer* overt subjects than those with weaker ties, in direct contradiction to the expected effect of English contact.

As for how contact affects the conditioning of SPE, one might expect contact with languages that lack the same/switch contrast to weaken its effect. Results are not available in Spanish, but they are available in Italian, which conditions SPE on reference in a similar way (Carminati, 2002). Sorace *et al.* (2009) report that school-age bilinguals are less likely than their monolingual Italian peers to associate same- and switch-reference contexts with the preferred variant. Surprisingly, this was true not only for children whose other language was English (which lacks the same/switch contrast), but also Spanish (which has the same contrast as Italian). This suggests that the mere fact of having two grammars may affect children's ability to process SPE in an adult-like way–at least in the relatively challenging context of a felicity judgment task.

This paper examines how children acquire SPE when exposed to two varieties of Spanish: Paraguayan Spanish and Ríoplatense Spanish. This is different from the cross-language contact situations reviewed above in that both varieties not only allow null subjects and condition SPE on reference, but they also share the same lexicon. In this type of contact situation, it is reasonable to assume that children construct construct a single grammar, rather than two different (but connected) grammars. In the next section, we outline the specifics of this assumption.

3.1. Assumptions about the learning mechanism

We assume the variational model of language acquisition originally proposed in Yang (2002, 2004), in which learning consists of resolving a competition between grammars. Children incrementally increase the probability of grammars that are consistent with the primary linguistic data and decrease the probability of those that are inconsistent with it, until one grammar wins out. For example, children exposed to English primary linguistic data will eventually assign probability 1 to an 'overt wh- movement' grammar as they come across questions in their input, while children exposed to Vietnamese will eventually converge on a grammar with covert wh- movement.

In cases of optionality, such as the alternation between null and overt subject pronouns in Spanish, we assume that grammars can continue to compete without a single winner, and that this is what leads to variation in adult grammars. In this case, 'successful' acquisition consists not in converging on a single target grammar, but on a target *probability distribution* over grammars. For concreteness, we will assume that speakers of Spanish assign some probability to each of the grammars in (2).

(2)   a. Grammar 1: same-reference → ø; switch-reference → overt pronoun
        b. Grammar 2: ø across the board
        c. Grammar 3: overt pronouns across the board

Grammar 1 categorically distinguishes between same- and switch-reference environments and has a high probability in Spanish varieties that strongly condition SPE on reference (e.g. San Juan Spanish, Cameron 1993) and a low probability in varieties where this factor is weak (e.g. Yucatán Spanish, Michnowicz 2015). Grammar 2 triggers null pronouns across the board and has a higher probability in mainland varieties (e.g. Peruvian Andes, Cerrón-Palomino 2019). Grammar 3 triggers overt pronouns and has a higher probability in Caribbean varieties (e.g. Dominican Republic, López Ortiz 2010). The task for the learner is to assign the target probabilities to Grammars 1-3 by observing the rate and distribution of overt SPE in her input.

4. The target populations

This paper presents data from residents of Villa 21, an area of the Barracas neighborhood of Buenos Aires. This is a working class neighborhood with a large population of Paraguayan immigrants, who migrate back and forth between Paraguay and Argentina. In this community, speakers of the local standard variety, known as Ríoplatense Spanish, come into regular contact with speakers of Paraguayan Spanish. Paraguayan Spanish is itself the product of language contact within Paraguay, including L1 and L2 Spanish, the Native American language Guaraní which is formally taught in schools, and the highly informal Spanish-Guaraní hybrid *jopará*, which is a spoken variety not taught in schools.

This paper focuses on children of Paraguayan immigrants growing up in Villa 21 whose parents speak to them in Spanish. At home, these children are exposed to Paraguayan Spanish input, either as an L1 or L2, while at school or daycare they are exposed to different degrees to Ríoplatense Spanish from their teachers and other adults. Our question is how this kind of contact affects their acquisition of SPE, in comparison to children acquiring Spanish from only one variety. Thus, we include as a control a group of working-class children born and raised in Mexico City, Mexico.

5. Hypotheses and predictions

In a homogeneous speech community, learners are exposed to input generated from speakers with the same underlying grammars–or in the case of sociolinguistic variation, speakers with similar underlying probability distributions over grammars. In theory, this should cause learners to converge on a similar probability distribution as the previous generation, leading to stable sociolinguistic variation over time. Our first hypothesis is therefore that children raised in the

mono-dialectal setting of Mexico City will assign adult-like probabilities to grammars 1-3, leading to adult-like production and conditioning of SPE, as in (3).

(3)   Predictions for child SPE in **mono-dialectal** situations
        a. Adult-like overall rate of overt SPE
        b. Adult-like contrast between same- and switch-reference environments.

In heterogeneous communities where speakers of different varieties come together, children may be exposed to input generated by different underlying probability distributions. Crucially, innovation will occur when different speech communities weigh grammars differently, leading children to acquire different probability distributions from the preceding generation. For example, if a child is exposed to input from Mexico City and Madrid, she will have conflicting evidence about the probability of Grammar 1, since the Madrid variety conditions SPE on reference more strongly than the Mexican variety (19% difference versus 13% difference). However, she will receive fairly consistent evidence about the ratio between Grammars 2-3, since both varieties have the same overall rate of overt SPE (20.9% versus 21.7%). We therefore expect innovation in the probability assigned to Grammar 1 but no change in the ratio between Grammars 2 & 3. Our second hypothesis is therefore that children raised in the bi-dialectal situation of Villa 21 will assign non adult-like probabilities to those grammars that Paraguayan and Ríoplatense Spanish weigh differently. If the two varieties of input agree, then children have no reason to innovate.

(4)   Predictions for child SPE in **bi-dialectal** situations
        a. Non adult-like overall rate of overt SPE **if** Paraguayan and Ríoplatense Spanish differ along this dimension.
        b. Non adult-like contrast between same- and switch-reference **if** Paraguayan and Ríoplatense Spanish differ along this dimension.

6. Methods
6.1. Participants

Mexico City data was taken from a subset of the Schmitt–Miller corpus (Miller & Schmitt, 2012). We include 8 working class child-caretaker dyads, recorded in one-on-one play sessions with each other.

Buenos Aires data was taken from a subset of the Villa 21 corpus (Avellana *et al.*, 2017). We include 10 children born to Paraguayan immigrants and raised in Villa 21, Buenos Aires. Participants were recorded in separate one-on-one play sessions with a parent and with an investigator. Parents reported being native speakers of Paraguayan Spanish who spoke to their children in Spanish. Investigators were natives of Buenos Aires who spoke the local standard variety of Rioplatense Spanish.

6.2. Coding

From the mono-dialectal control group, we extracted a total of 21,666 care-taker utterances (Mexico City Spanish) and 17,845 child utterances. From the contact group, we extracted a total of 23,481 caretaker utterances (Paraguayan Spanish), 10,537 investigator utterances (Ríoplatense Spanish), and 19,410 child utterances. Next, we identified subjects appearing in clauses where both null and overt realization is grammatical and coded all personal pronouns as either null or overt. Following Shin (2016) we excluded subjects of imperatives, as well as frozen expressions, set phrases, impersonal *se*, generic 'them', dative-experiencer predicates, and passages from books and songs (see Forsythe *et al.* 2019 for a full list of exclusions and examples). This produced a total of 25,621 coded tokens, broken down for each child and adult in Table 3.

Table 3. Subject pronouns produced by children and adults in Mexico City (top) and Buenos Aires (bottom)

code	child age	child tokens	adult tokens	
			Mexican Spanish	
LSA	2;5	432	1010	
AAH	2;10	537	849	
KDP	3;4	472	692	
ACC	4;11	269	843	
KUC	4;5	676	987	
YBM	4;8	705	954	
OMJ	5;1	669	788	
JRC	5;11	861	1164	
			Paraguayan Spanish	Ríoplatense Spanish
RB	3;2	340	728	-
LI	3;5	282	593	-
ODOG	3;5	286	717	586
AG	4;1	962	793	762
GG	4;1	491	274	584
AC	4;4	343	469	277
BB	4;7	354	432	-
DDZF	4;7	199	186	-
ABB	4;8	769	603	518
EGC	4;9	782	589	794

In order to code reference, we identified those subject personal pronouns preceded by at least one other tensed clause in the same speaker turn. Pronouns were coded as 'same-reference' if they referred to the same referent as the subject of the preceding clause and 'switch-reference' if they referred to any other referent

(preceding object, new referent, etc.). If the subject of the preceding clause was any of the following, it was skipped and the subject of the preceding clause before that was instead used to code reference: expletive subjects, event-referring clausal subjects, subjects of frozen expressions, impersonal *se*, *wh*-traces, subjects of dative experiencer predicates (see Forsythe *et al.* 2019 for a full list of exclusions and examples). This resulted in a subset of 9,520 tokens.

6.3. Inter-rater reliability

Coding was done by the first author, the second author, and a third trained assistant. To obtain measures of inter-rater reliability, all three coders independently analyzed 6 transcripts, comprising 6% of all tokens. Reliability between raters 1 and 2 was 99% ($\kappa = .93$) for pronominal form and 95% ($\kappa = .89$) for reference; reliability between raters 2 and 3 was 98% ($\kappa = .92$) for pronominal form and 97% ($\kappa = .95$) for reference; and reliability between raters 1 and 3 was 99% ($\kappa = .93$) for pronominal form and 96% ($\kappa = .92$) for reference.

7. Results and discussion
7.1. Overall rate of overt SPE

Figure 1a shows the overall rate of overt SPE produced by children and adults in each community. To test the first prediction for mono-dialectal acquisition, we compared the overall rate of overt SPE produced by Mexico City children (12.6%, N = 4,621 tokens) and their caretakers (11.7 %, N = 7,287 tokens) using a binary logistic regression model with a main effect of group (children, caretakers) and random intercepts for dyad. There was no significant difference between children (reference group) and caretakers, consistent with the hypothesis that children assign similar probabilities to grammars that trigger null pronouns across the board (Grammar 2) and that trigger overt pronouns across the board (Grammar 3).

To test the first prediction for bi-dialectal acquisition we first compared the rate of overt SPE produced by Paraguayan-speaking parents (13.5%, N = 5,384 tokens) and Ríoplatense-speaking investigators (11.6%, N = 3,521 tokens) using a model with a main effect of group (parents, investigators) and random intercepts for dyad. There was a significant effect of group, with Ríoplatense-speaking investigators producing significantly fewer overt subject pronouns than Paraguayan-speaking parents ($\beta = -0.223, SE = 0.07, p < 0.01$). This is an indication that children's input is composed of primary linguistic data generated by speakers with *different* underlying probabilities assigned to Grammars 2 and 3.

Given the significant difference between Paraguayan and Ríoplatense Spanish, we predict that children will innovate, differing from both sets of input. To test this prediction, we compared the rate of overt SPE produced by children (17.6%, N = 4,808) to both groups of adults, using children as the reference group. Children produced significantly more overt subject pronouns than both

their Paraguayan-speaking parents parents ($\beta = -0.30, SE = 0.06, p < 0.001$) and the Ríoplatense-speaking investigators ($\beta = -0.51, SE = 0.07, p < 0.001$). This is consistent with our hypothesis that children exposed to varieties that 'disagree' on the probability of a given grammar (ex. higher probability of Grammar 3 in Paraguayan Spanish vs. Ríoplatense Spanish) will converge on a different probability distribution than the preceding generation; i.e., that they will innovate. What's more, children appear to be innovating in the direction of more overt SPE (higher probability of Grammar 3), which is the same direction that is commonly observed among adults in situations of contact (see Table 2).

(a) Overall rate overt SPE   **(b) Conditioning by reference**
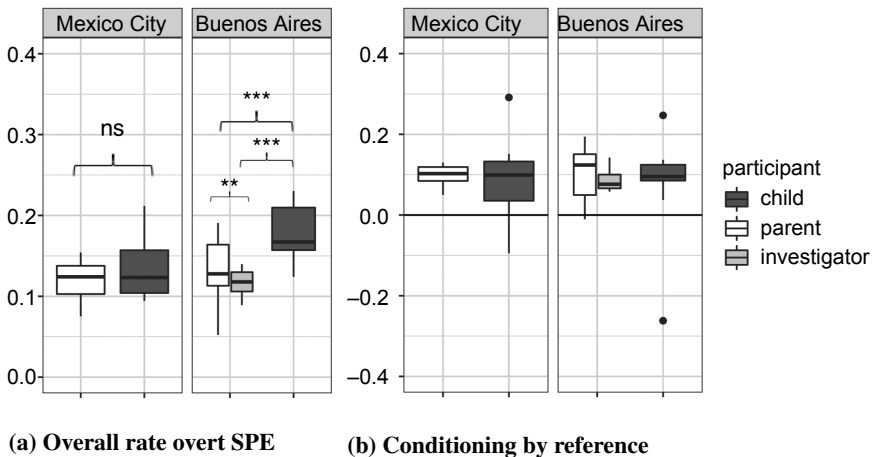
Figure 1. Overt subject pronoun expression in Mexico City (N=8 dyads) and Buenos Aires (N=10 triads). Y-axes show (a) overall rate of overt SPE (N=25,621 tokens), and (b) the difference in overt SPE rates across same- and switch-reference environments (within speaker turn, N=9,520 tokens)

7.2. Conditioning by reference

Figure 1b shows how strongly children and adults in each community condition SPE on reference, as measured by the contrast in overt SPE rates across same- and switch-reference environments. Values above 1 indicate that the rate of overt SPE is higher in switch-reference environments compared to same-reference environments. To test our second prediction for mono-dialectal acquisition, we used a logistic regression to test for an interaction between age group (children, N = 1,333; parents, N = 2,950) and reference (same, switch) in the Mexico City subjects that were coded for reference (within speaker turns). We also included random intercepts for dyad. There was no main effect of group, indicating that children produced overt subject pronouns at roughly the same rate as their parents. There was a main effect of reference, with significantly more overt pronouns

in switch-reference environments compared to same-reference environments ($\beta = 0.88, SE = 0.19, p < 0.001$). However, there was no interaction between reference and group, indicating that children condition SPE on reference to the same degree as their parents. This is consistent with the hypothesis that children raised in mono-dialectal environments converge on the adult-like probability of a grammar that categorically distinguishes same- and switch-reference (Grammar 1).

To test the second prediction for bi-dialectal acquisition, we again began by comparing Paraguayan-speaking parents (N = 2,386) to Ríoplatense-speaking investigators (N = 1,553) before comparing both adult groups to children (N = 1,298). As with the Mexico City data, we used a logistic regression to test for an interaction between group and reference, and the model included random intercepts for dyad. For the adult model, there was a main effect of reference ($\beta = 0.94, SE = 0.13, p < 0.001$) but no interaction with group; that is, both Paraguayan-speaking parents and Ríoplatense-speaking investigators conditioned SPE on reference to the same degree. This is an indication that children's input is composed of two groups that assign similar underlying probabilities to Grammar 1. We therefore predict that children will not innovate. To test this prediction, we used a logistic regression to test for an interaction between reference and group, using children as the reference group. There was a main effect of reference, with more overt pronouns in switch-reference environments ($\beta = 0.72, SE = 0.15, p < 0.001$). There was also a main effect of group, with children producing more overt pronouns compared to their Paraguayan-speaking parents ($\beta = -0.36, SE = 0.16, p < 0.05$) as well as the Ríoplatense-speaking investigators ($\beta = -0.62, SE = 0.20, p < 0.01$). Crucially however, there was no interaction between reference and group, indicating that children condition SPE on reference to the same degree as both groups of adults. This is consistent with our hypothesis that children exposed to varieties that assign the same underlying probability to a given grammar (e.g. Grammar 1) will converge on the same probability, in the same manner as children exposed to only one variety. In other words, children have no reason to innovate in this case.

8. Conclusion

This study shows that children exposed to a single variety of Spanish acquire the sociolinguistic variable of SPE by adopting the same variable patterns as the previous generation, while children exposed to more than one variety innovate. Specifically, we find that children exposed to Mexico City Spanish match the overall frequency of overt subject personal pronouns attested in their input, while children exposed to a mix of Paraguayan and Ríoplatense Spanish produce more overt SPE than attested in either type of input. However, children do not innovate without reason. Paraguayan and Ríoplatense Spanish input differ with respect to the overall frequency of overt SPE, but they condition this variable on reference to a similar degrees, and children likewise condition SPE on reference

to a similar degree as their adult models, in much the same manner as children exposed to only Mexico City Spanish.

It is somewhat surprising that children in this contact situation innovate by producing significantly *more* overt SPE than either Paraguayan or Ríoplatense input contains, rather than simply splitting the difference. This was not specifically predicted by our implementation of the variational model of acquisition for SPE (Section 3.1). However it is telling that the direction of innovation matches what is consistently observed among adults in situations of long-term contact (2). This suggests that the contact-induced language changes observed in adults may be driven, not only by factors like adult L2 acquisition or L1 attrition and accommodation, but also by child L1 acquisition. In other words, children have a role to play, not only in long-term grammatical changes, but also in changing sociolinguistic patterns.

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