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# Salvadoran Spanish /-s/ Aspiration and Deletion in a Bilingual Context

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# 1 Introduction

One of the best known features of Peninsular and Latin American Spanish is the aspiration and deletion of syllable- and word-final /-s/. This variable has been documented as early as the sixteenth century (Lipski 1984) and has been investigated in many varieties of Spanish (Cedergen, Poplack, Lipski). This variable is of interest for its social as well as linguistic conditioning. It appears in monomorphemes, e.g. *menos* 'less', as well as an inflectional marker indicating person for verbs, and serves as the plural marker, e.g., *casas* 'houses'. It is thus subject to a variety of phonological, morphological, and syntactic constraints. The aspiration and deletion of /-s/ is a feature of the Spanish of El Salvador, a lesser-studied variety.

This paper provides a preliminary investigation of this variable in the speech of Spanish/English bilingual youth from El Salvador residing in Toronto, Canada. The paper begins with a discussion of the frequency of aspiration and deletion in three speech styles. It then offers a varbrul analysis of social factors predicting aspiration and deletion and continues with a Varbrul analysis of linguistic factors predicting aspiration and deletion.

## 1.1 The Spanish-speaking Population in Toronto

Numerous linguistic studies have examined United States Spanish as well as issues of language contact and maintenance within Spanish-speaking communities. That Canada, and Toronto in particular, are home to large and vibrant Spanish speaking communities, is less well-known. Toronto's Spanish speaking population has many countries of origin. The 1996 Census of Canada reports approximately 116,500 residents of Latin American ethnicity in Toronto, although members of the community say that this is a low estimate and that the number is closer to 200,000.

Though Spanish speaking Latin American immigration to Canada can be traced from the mid-twentieth century, it expanded exponentially dur-

ing the early 1970s. Thousands of Chileans fleeing the military coup ob-
tained landed immigrant status and are still a great presence within the
Spanish speaking community. Beginning in the 1970's, improved Cana-
dian immigration policies facilitated the arrival of many immigrants from
Colombia and Ecuador. The early 1980's brought large-scale immigration
from Central America, due to the adverse socio-political conditions in El
Salvador, Nicaragua, and Guatemala. The escalation of civil war and its
consequences in El Salvador forced thousands to flee to Canada, mostly
as political and economic refugees. An estimated 34,000 Salvadorans
came to Toronto as immigrants from the eighties through 1991. Since then
the number has continued to grow. The more recent immigrants are moti-
vated more by economic hardship and the resulting adverse social condi-
tions than by political persecution.

## 1.2  The Sample

The data for this paper come from a judgment sample of eighteen first
language speakers of Salvadoran Spanish, aged fifteen to twenty three,
with varying ages of arrival and durations of stay in Canada. The majority
of the speakers come from San Salvador, the capital of El Salvador. I con-
ducted sociolinguistic interviews with them in Spanish, consisting of three
styles: conversation, reading passage, and word list. I drew and coded ap-
proximately 9000 tokens of /-s/ from the conversation portion of the so-
ciolinguistic interviews for use in this paper.

This study focuses on the Spanish of youth from El Salvador for a
number of reasons: the Salvadorans are one of the largest groups within
Toronto's Spanish speaking community, and furthermore, the wave of
immigration from El Salvador is more recent than for other countries.
Since most of the youth were born in El Salvador rather than Toronto, I
thought they would be more likely to retain their use of Spanish. The issue
of language maintenance among Spanish speaking youth in Toronto is
complicated. It is one I shall attempt to address in future work. Although
the youth I interviewed claim to have strong language loyalty to Spanish,
most admit to speaking English with their siblings. All the youth have
Spanish speaking friends, both from El Salvador and from other Spanish
speaking Latin American countries, primarily Ecuador, Colombia, and
Guatemala. In general they reported that they are more likely to speak
Spanish with their friends than with their siblings, a pattern common in
situations of impending language loss. Speakers indicated that in some
cases, they spoke Spanish in order to assert their identity as Hispanic or

Latino. They also report code switching, or speaking what many of them call "Spanglish" with friends who speak both Spanish and English.

### 1.3 Salvadoran Spanish

There have been comparatively few studies of Central American Spanish compared with Caribbean and South American varieties. Canfield's (1981) survey of Spanish American phonology offers a limited description of features characteristic of the Spanish of El Salvador, /-s/ aspiration and deletion among them. Lipski (1985) conducted a survey of /-s/ aspiration deletion in the Central American capitals. His Salvadoran sample consisted of 10 adult speakers with a minimum of high school education. Overall, Lipski's data for these speakers reveal a higher rate of overall aspiration and deletion than my data: 59%. He offered no breakdown according to social factors or individual speakers.

## 2 /-s/ Aspiration and Deletion According to Speech Style

In this discussion of speech style and social factors, I shall focus my comments on all /-s/ weakening—aspiration and deletion—in contrast with /-s/ retention. Of the three styles recorded in this sample, /-s/ weakening is highest in the least formal style, free conversation, lower in the reading passage and lowest—almost non-existent-in the word list, the most formal style.

As reported in Table 1, in free conversation, speakers aspirate /-s/ at a rate of 25%, and delete at a rate of 17%; altogether /-s/ is weakened at a rate of 42%. In more careful styles, speakers aspirate and delete /-s/ at a rate of 7% in the reading passage and 2% in the word list. This suggests that speakers have a negative evaluation of /-s/ weakening and is consistent with the attitudes expressed in interviews by some of the speakers. When we spoke about their opinions of different varieties of Spanish, some speakers mentioned /-s/ deletion and aspiration or "comerse las eses" ["eating one's s's"] as something that other people, "from the country" or who don't speak properly do. They were consistent in the view that it wasn't a feature of proper Spanish. Although they did identify it, along with syllable initial /-s/ aspiration, e.g. *nohotros* [for *nosotros* 'we'] as characteristic of Salvadoran Spanish.

|                   | Conversation | Reading Passage | Word List |
|-------------------|--------------|-----------------|-----------|
| All Speakers      | 42%          | 7%              | 2%        |
| Sex               |              |                 |           |
| Men               | 52%          | 10%             | 4%        |
| Women             | 34%          | 4%              | 1%        |
| Age of Arrival    |              |                 |           |
| 11-15             | 51%          | 10%             | 4 %       |
| 6-10              | 40%          | 5%              | 1%        |
| <5                | 28%          | 1%              | Ø         |
| Duration of Stay  |              |                 |           |
| 12-18             | 33%          | 6%              | 2%        |
| 9-10              | 44%          | 6%              | 2%        |
| 3-6 years         | 48%          | 8%              | 3%        |

Table 1: /-s/ Weakening (Aspiration and Deletion) by Style

## 3 Social Factors

The social factors I considered for the analysis of /-s/ weakening were sex, age of arrival in Canada, duration of stay in Canada, and parents' level of education in El Salvador. As indicated in Table 1, men weaken /-s/ more than women in all three styles, as do speakers with the later ages of arrival and shorter durations of stay. This points to the hypothesis that speakers who have lived in Canada the longest are most likely to retain word and syllable final /-s/.

For the most part, the Varbrul analysis of these social factors reflects the raw statistics. For this analysis, I combined the two shortest duration factors (3-6 years and 9-10 years), leaving two factors: speakers who have been in Canada for 3-10 years, and for 12-18 years.

Results in Table 2 reveal that men are more likely to weaken /–s/ than women, with factor weights of .57 for men and .42 for women. This is consistent with other studies of /–s/ deletion and aspiration and suggests that women are less likely to use the more stigmatized variants. What could account for this result? This gender difference could be reflective of the expectations of women's behavior within the Salvadoran community: speakers mentioned that women should be seen to be "proper" and "modest". This discrepancy could also reflect the women's desire to distance themselves from the negative stereotype associated with young Salvadoran men. These youth, often associated with gangs, have a bad reputation within the community and in Toronto in general.

Age of arrival was also a solid predictor of /-s/ weakening: speakers who arrived in Canada aged 5 years or younger discourage aspiration and deletion with a probability of .42. For those who arrived aged 6-10 there's a weaker effect, in the opposite direction: encouraging weakening at .52, and those who arrived in Canada the latest-aged 11-15 are most likely to weaken /-s/ with a factor weight of .56.

For the factor group duration of stay, speakers who have been in Canada the longest—12 years or more—inhibit weakening at .48, while the rest of the speakers promote weakening with a factor weight of .52.

Overall, speakers who came from El Salvador the earliest, and who have been in Canada the longest seem to not adopt or to move away from this feature of Salvadoran speech. The factor weights for complete deletion follow the same pattern as those for weakening.

I had included another social factor group, parents' level of education in El Salvador, as a measure of class. That factor group was not significant for the combined /-s/ weakening calculations, but it was significant for deletion, the most stigmatized variant. Speakers whose parents attended some form of post secondary education in El Salvador are least likely to delete /-s/, with a factor weight of .48, and those whose parents did not complete high school are most likely to delete /-s/, at .52.

|  | Probability | N | % |
|---|---|---|---|
| <u>Sex</u> | | | |
| Men | .58 | 2267 | 52 |
| Women | .42 | 1635 | 34 |
| <u>Age of arrival</u> | | | |
| 11-15 | .56 | 2097 | 51 |
| 7-10 | .52 | 1221 | 40 |
| 1-5 years | .42 | 584 | 28 |
| <u>Duration of stay</u> | | | |
| 3-10 | .52 | 3052 | 46 |
| 12-18 | .48 | 850 | 33 |
| <u>Parents' level of education in El Salvador</u> | | | |
| (significant for deletion only) | | | |
| Elementary | .52 | 374 | 19 |
| High school | .50 | 474 | 17 |
| Post-secondary | .48 | 708 | 16 |

Table 2: Factors predicting /-s/ aspiration and deletion (all weakening)

The Varbrul calculations, along with the raw statistics, point to a number of different issues: all the speakers have diverse friend groups, consisting of speakers of different varieties of Spanish. Some of these varieties are non-aspirating and deleting. Exposure to other, non-/-s/ aspirating and deleting varieties combined with a negative evaluation of Spanish from El Salvador, could cause speakers to accommodate to the more prestigious norm of /–s/ retention. This could also be evidence of koinéization taking place in the varieties of Spanish spoken in Toronto. Of course, it is still too early to confirm this speculation, and more research is needed to investigate this possibility.

The speakers' feelings were mixed on whether their contact with other varieties of Spanish has influenced the way they speak. Most indicated an awareness of the difference between their Spanish and the Spanish of their friends from other countries. In conversation many identified Peninsular Spanish as the "best" variety. Another factor contributing to /-s/ retention could be speakers' exposure to Standard Spanish taught in high schools. This standard, taught as 'proper Spanish', is non /-s/ deleting.

The question of how the ethnicity of these speakers is manifested linguistically through their Spanish is complex. Generally, speakers do not evaluate Salvadoran Spanish highly. Some even go as far as to take pride in their impression that other Hispanics cannot tell they are from El Salvador. This alleged confusion is attributed to their' good' speech and general appearance. Speakers reported an awareness that Central Americans in general and Salvadorans in particular, have the lowest social status within the Spanish speaking community. This can be attributed more generally to their more recent arrival to Canada and their comparative lack of education—many Chileans and Argentineans, for example, came as political refugees and had a high level of education—and more specifically to stereotypes associating Salvadoran youth with gangs.

Consequently, there is a strong social motivation for Salvadoran youth to adopt features of Spanish not associated with their country of origin. This is at odds with the insistence of most speakers that they identify as Salvadoran first and Latino or Hispanic second. This consistent and purposeful identification as Salvadorans is evident among speakers from all categories of age of arrival and duration of stay. It will be interesting to see how this tension, between their desire to assert their identity as Salvadorans—perhaps as a reaction against the negative evaluation by their community—and their movement away from linguistic features associated with Salvadoran Spanish, is reconciled.

# 4 Linguistic Factors

Investigations of /-s/ aspiration and deletion have considered variety of phonological, morphological, and syntactic constraints. With a view to providing an exhaustive examination of linguistic factors affecting this variable, the preliminary analysis coded for approximately ten constraints. Many were found to be not significant and were discarded. These included following syllable stress and plural /-s/ type, as well as the number of syllables in the word and a factor group designed to measure functional effect of disambiguating information in the discourse.

This paper will discuss four significant linguistic constraints governing word final /-s/ deletion: the phonological factors 'following segment' and 'current syllable stress', for which I shall present calculation results both for all /-s/ weakening and for deletion; the factors of morphological category and position of plural within the noun phrase, for which I shall discuss results for deletion only.[2]

## 4.1 Phonological Constraints

Previous studies have exhibited differing results with regard to the effect of following segment on aspiration and deletion. In most varieties of Spanish, aspiration and deletion are most frequent in pre-consonantal position as compared to following vowels and pause (Mason 1994:153). Lipski's (1985) Salvadoran data show high rates of aspiration and deletion before consonants (68%) and before vowels (58%), but a much lower weakening rate before pause (15%) (144). He provides no break down of consonant features.

The following segment factor group initially consisted of individual consonants. After testing for significance, I combined like-featured factors into the following groups: obstruents except for /t/, sonorants, vowels, pause, and /t/, which was kept separate as it appeared to have a distinct effect on /-s/ on weakening. Varbrul calculations shown in Table 3 reveal that for /-s/ weakening or combined aspiration and deletion, obstruents (both voiced and voiceless) other than /t/, and sonorants promote aspiration and deletion. In contrast, following /t/ inhibits strongly. The effect of following /t/ on aspiration, promoting /-s/ retention, is expected as /t/ and /s/ are homorganic and maximally similar. The aspiration qualities associ-

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[2]This paper discusses /-s/ aspiration and deletion in word- final position only. Phonological constraints on word internal aspiration and deletion in this corpus were similar.

ated with /t/ are acoustically or phonetically associated with /s/. In articulatory terms, the tongue has to pass through an /s/–like position on its way to articulating /t/. This is not the case for other consonants. Following vowels promote aspiration and deletion, albeit very weakly. Following pause exhibits a strong effect discouraging all weakening.

|                          | Probability | N    | %  |
|--------------------------|-------------|------|----|
| Following Segment        |             |      |    |
| obstruents               | .71         | 1346 | 63 |
| sonorants                | .74         | 724  | 67 |
| vowels                   | .51         | 819  | 44 |
| pause                    | .28         | 297  | 23 |
| Current Syllable Stress  |             |      |    |
| stressed                 | .45         | 908  | 42 |
| unstressed               | .55         | 2348 | 51 |

Table 3: Phonological Factors Predicting Word Final /-s/ Weakening (Aspiration and Deletion Combined)

The calculations for deletion only (Table 4), reveal a definite voicing effect, with voiced obstruents (.72) and sonorants (.65) encouraging deletion, and all voiceless obstruents discouraging with a factor weight of .33. Guy (1996) found the same result for following consonant voicing on /-s/ deletion in Buenos Aires Spanish. This difference in obstruent voicing between all /-s/ weakening and /-s/ deletion only is due to the general effect of voiceless obstruents on aspiration: the non-coronal voiceless obstruents promote aspiration and this effect is absent when we consider deletion alone. Following vowels and following pause discourage deletion as they did for combined aspiration and deletion.

The effect of following vowel for deletion only is consistent with other studies of deletion in other varieties of Spanish (e.g., Poplack 1980, Guy 1996), but the results for following pause are generally inconsistent (cf. Poplack 1980, Terrell 1975). Lipski's Salvadoran data show fewer instances of weakening before pause, but more weakening before vowels than in my sample.

With regard to syllable stress, For both aspiration and deletion combined, and for deletion alone, current stressed syllables discourage deletion and unstressed syllables encourage deletion. This is consistent with the general findings that stressed syllables are more resistant to reduction than unstressed syllables. Following syllable stress, a significant con-

straint in the study of /–s/ deletion for other varieties of Spanish, was found not significant in this sample.[3]

| | Probability | N | % |
|---|---|---|---|
| Following Segment | | | |
| voiceless obstruents | .33 | 216 | 13 |
| voiced obstruents | .72 | 306 | 42 |
| sonorants | .65 | 389 | 36 |
| vowels | .40 | 319 | 17 |
| pause | .39 | 206 | 16 |
| Current Syllable Stress | | | |
| stressed | .40 | 318 | 15 |
| unstressed | .60 | 1118 | 24 |

Table 4: Phonological Factors predicting Word Final /-s/ Deletion

## 4.2 Morphological Constraints

Initial coding for morphology included an extremely long and elaborate list of factors that distinguished between different verb forms, pronouns, adjectives, determiners, and quantifiers, as well as number of common lexical items.

After testing for significance, I refined the analysis by combining like factors into categories exhibiting the same effect on deletion. These recodes left the following factors: nominals, which includes modifying adjectives, determiners, and some plural pronouns; predicate adjectives; quantifiers, including *todos, muchos, pocos*; the pronoun *nosotros*;[4] monomorphemes; object and indirect object pronouns *las* and *les*,[5] and two frequent lexical exceptions, *entonces* and *pues,* combined.

Results in Table 5 show that monomorphemes inhibit deletion with a strong factor weight of .32. Both verbal and nominal /-s/, which include many examples of inflectional /-s/, discourage deletion, nominals with a factor weight of .32, and verbs with a somewhat weaker effect at .44. Predicate adjectives have a neutral effect at .50. This effect could due to their distance from the plural NP with which they agree. They may require

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[3] Although not significant, following stressed syllable and unstressed syllable discouraged aspiration and deletion weakly in contrast to other studies where following unstressed syllable favored deletion.

[4] *Nosotros* did not produce an effect that lent itself to combination with other factors.

[5] This factor consisted mainly of the oblique pronoun *les*.

some distinctive syntactic operation to be marked. Quantifiers stand out as a group encouraging deletion with a factor weight of .61. This could be attributed to their position, coming before determiners, possibly not within the domain of the NP. The combined factor *les* and *las*, consisting largely of the indirect pronoun *les*, also promotes deletion. This higher rate of deletion could be attributed to case marking, with the oblique losing plural marking first. This already occurs in Spanish: the indirect object pronoun *se*, when used in conjunction with direct object pronouns, can have a singular or plural meaning. It has also lost a gender distinction, e.g., context determines whether *Se lo di* means "I gave it to her/him or I gave it to them."

The lexical exceptions, *entonces* and *pues* have the most powerful effect promoting deletion with a factor weight of .71. This supports the theory that these extremely frequent discourse markers have multiple underlying representations—with and without /–s/ (Guy 1996, 2000).

|                        | Probability | N   | %  |
|------------------------|-------------|-----|----|
| Verbs                  | .44         | 333 | 23 |
| Nominals[6]            | .32         | 551 | 18 |
| Predicate adjectives   | .50         | 43  | 31 |
| *Las/les* as pronouns  | .61         | 64  | 45 |
| Quantifiers            | .61         | 99  | 45 |
| *Nosotros*             | .50         | 35  | 36 |
| Monomorphemes          | .32         | 173 | 13 |
| *Entonces, pues*       | .71         | 138 | 51 |

Table 5: Morphological Factors predicting Word Final /-s/ Deletion

### 4.3 Syntactic Constraints

With regard to the effect of position in the NP on deletion, or absence of plural marker, one can discern a clear pattern: generally, deletion is more likely farther to the right in the noun phrase. As reported in Table 6, positions 1 and 2 inhibit deletion with factor weights of .39 and .40, and positions 3 and 4 encourage it at .57 and .64. When we consider preceding plural marker with position, words in second position preceded by a plural maker are least likely to delete. This is true of words preceded by both plural marked nominals as well as by numbers. In contrast, words in second position preceded by no plural marker favor deletion. Words in third

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[6] Includes nouns, modifying adjectives, determiners, plural marked pronouns

and fourth position[7] preceded by only plural marked forms discourage deletion, though to a lesser degree than second position, at .44. Third and fourth position preceded by no plural marked forms encourages deletion strongly at .76. Third and fourth position preceded by mixed plural marked and deletion has a neutral effect on deletion. Thus, the presence of a preceding plural favors retention, and the absence of a preceding plural encourages deletion. This result is similar to other studies of /-s/ deletion (Poplack 1980, Guy 1996): redundancy seems to be favored within the noun phrase and mixed antecedents have no effect. These results could also be evidence of a micro-stylistic effect in the three-word NPs: if the speaker begins the NP with with a plural marker, he or she will continue to use plural marking.

|                        | Probability | N   | %  |
|------------------------|-------------|-----|----|
| Position in NP         |             |     |    |
| 1                      | .39         | 482 | 22 |
| 2                      | .40         | 173 | 18 |
| 3                      | .57         | 41  | 29 |
| 4                      | .64         | 9   | 32 |
| Position Preceded by Plural Marker | |  |    |
| 1                      | .35         | 482 | 22 |
| 2 prec. by pl.         | .31         | 121 | 14 |
| 2 prec. by Ø           | .61         | 52  | 40 |
| 3+4 prec. by pl.       | .44         | 12  | 20 |
| 3+4 prec. by mixed     | .50         | 21  | 28 |
| 3+4 prec.by Ø          | .76         | 17  | 53 |

Table 6: Linguistic Factors predicting Word Final /-s/ Deletion

# 5 Discussion

These results raise several questions with regard to linguistic and social constraints on /-s/ aspiration and deletion in Salvadoran and other varieties of Spanish. Lipski (1985) suggests that since the aspiration and deletion of /-s/ is not as advanced as in other varieties, Salvadoran Spanish offers an opportunity to examine the variation in earlier stages and look at the "spread of the weakening process" (148). With regard to phonological constraints, several findings, such as the universal conservative effect of current syllable stress in this study, confirm previously documented con-

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[7] I combined 3rd and 4th positions because there were so few tokens for 4th position.

straints on the variable. The import of others, e.g., the effect following pause, has yet to be established.

Morphological category is another area that begs for further investigation. Guy (2000) provides evidence for multiple underlying representations for lexical exceptions. The data for lexical exceptions in this corpus are a good fit for that model. There is also the question of functional motivation for the retention of the plural marker. Both inflectional categories, nominals and verbs, discourage deletion. Nonetheless monomorphemes, where discourse ambiguity is not at issue, show higher rates of deletion and similar factor weights to the inflectional categories.

This paper provided evidence of the state of /-s/ aspiration and deletion in the Spanish of young Salvadoran immigrants to Toronto, Canada. Of course, more research is needed to shore up these preliminary observations. More specifically, it would be revealing to expand this study to include young speakers of other /-s/ weakening varieties, as well as more Salvadoran youth, more closely associated with groups perceived as socially marginal. The continued effect of duration of stay should also be monitored. I predict that changes to this variable are largely dependent on social factors and on the situation and status of Spanish spoken in Toronto. Only time and more research will tell.

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