A Perception Study of Rioplatense Spanish

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Abstract

Rioplatense Spanish (RPS; Argentina and Uruguay) is known for its distinctive pronunciation features. In Standard American Spanish, the sound associated with the letters 'y' or 'll' is [j] (as in 'yellow'), but in RPS the sound is [ʒ] (as in 'measure') or, more recently, [ʃ] (as in 'shoe'). Previous studies found this sound change (from [ʒ] to [ʃ]) is almost complete in speakers from Uruguay and Argentina, but the change in Uruguay is more recent. In this study, RPS speakers from both countries were presented with audio recordings of words containing all possible variants of the sounds [j], [ʒ], and [ʃ]. After listening to the recordings, participants determined the country of origin of the speaker. We expected Argentine participants to attribute [ʃ] to Argentine Spanish, and [ʒ] to Uruguayan Spanish. Uruguayan participants were expected to attribute both [ʃ] and [ʒ] to either Argentinian or Uruguayan Spanish, unable to differentiate between the two sounds. Results shows that speakers are aware of their own dialect's shift towards [ʃ]; however, they also attribute the [ʒ] sound to speakers from across the river, unaware that both pronunciations have shifted.

Introduction

This paper reports results from a perception study examining the sound change in the phonological phenomenon of *ʒeísmo* in Rioplatense Spanish (RPS). Native RPS speakers currently residing in either Buenos Aires, Argentina or Montevideo, Uruguay participated in an online experiment in which they were presented with various pronunciations of target audio stimuli of Spanish words. Participants were asked to determine the country of origin of the speaker for each item. Results suggest that speakers' perceptions of the sound change taking place in their region as a whole, are greatly influenced by their area of origin within the region – namely, speakers are aware of their own shift, but not the shifts seen in the other RPS speaking department. These results align well with literature on ideologies.

Background

The phenomenon of *ʒeísmo* is one of the most indicative phonetic features of Rioplatense Spanish (RPS) – the dialect spoken in the Rio de la Plata region of South America which includes both Montevideo, Uruguay and Buenos Aires, Argentina. The term *ʒeísmo* refers to the pronunciation of the orthographic 'y' or 'll' as the voiced post-alveolar fricative [ʒ] (as in 'mea**s**ure') or the voiceless post-alveolar fricative [ʃ] (as in '**sh**oe'); however, in Standard American Spanish, the sound is realized as the palatal approximant [j] (as in '**y**ellow'). Many studies have shown that within the last 70 to 80 years, there has been a strong transition towards the voiceless [ʃ] in both Argentina and Uruguay, with Argentina having completed the change by 2004 and Uruguay following only recently (Barrios 2002, Temkin Martínez 2004, Wolf & Jiménez 1979, Wolf 1984, Chang 2008).

The introduction of the voiceless variant was first documented in the 1940's in Buenos Aires during Juan Peron's presidency (Honsa 1965). Peron was thought to be an advocate for the working class. Therefore, many lower-class Argentines moved to Buenos Aires with the hope that they would have better opportunities. This caused a growth in the lower- and working-class population in Buenos Aires, and also introduced a new pronunciation characteristic, creating a socioeconomic divide between speakers who used the voiced variant, and those who used the voiceless allophone. Therefore, in Buenos Aires in the 1940's, the voiced variant was recognized by speakers as the prestigious pronunciation, while the voiceless sound was indicative of the working class (Honsa 1965).

Documentation of the sound inventory for the region a couple of decades after the introduction of the voiceless sound indicates that Standard RPS – spoken in both Montevideo and Buenos Aires – contained the voiced post-alveolar fricative [ʒ]. Its voiceless counterpart [ʃ], however, was only present in the sound inventory for Colloquial Buenos Aires Spanish. While the voiceless variant [ʃ] was officially recognized as belonging to the lower class in previous generations, younger members of the population across all socioeconomic classes were beginning to show a notable shift in preference towards this feature as well. Honsa (1965) attributes this rapid spread of the devoiced variant to the increase in media influence at the time. Moreover, as with most cases of language change, it was found that the devoicing in Buenos Aires was being driven by women, which created a shift in the linguistic ideologies associated with the voiced and voiceless variants (Wolf & Jiménez 1979). The voiced variant maintained its level of prestige; however, as women began to use [ʃ] more frequently in their speech, the [ʒ] also became more strongly associated with masculinity. As a result, the [ʃ] developed an association with what was thought to be 'feminine' speech, as well as maintaining some association with the working class (Wolf & Jimenez 1979).

Perhaps because of the feminine association with devoicing, the sound change was progressing much more gradually for the males in the older generation, as opposed to a rapid change for the female population. By 1979, the process of devoicing was nearly complete in not only the speech of women, but also in the younger generation across socioeconomic classes (Wolf & Jimenez 1979). Thus, women had modeled a new speech pattern for the younger generation, which caused the ideologies that had formed around socioeconomic class and voicing to begin to dissipate. Only a few years later, Wolf (1984) made an emerging claim that the sound change in Buenos Aires had been completed in the younger generation, and speakers were beginning to favor the voiceless variant [ʃ].

In a study conducted in 2004, Temkin Martínez provided an acoustic analysis of voicing in *ʒeísmo* in the speech of participants from Buenos Aires. Following Donni de Mirande (1991), Temkin Martínez took into consideration the presence of partial voicing. In this study, it was ascertained that female speakers in Buenos Aires were driving devoicing in *ʒeísmo*, and that devoicing in the younger generation was already complete, thus supporting previous findings (Wolf 1984). In addition, it was also found that the younger population devoiced most often, and that the middle-aged population in Buenos Aires was most likely to at least partially devoice the post-alveolar; coinciding with the findings in Donni de Mirande (1991). The study also finds that in the early 2000's, the difference between the two segments was no longer associated with socioeconomic class, but only with gender.

Chang (2008) further determined that the only remaining speakers in Buenos Aires that consistently and nearly exclusively realized the segment as voiced were born before 1945, while participants that were born after 1975 almost exclusively preferred the voiceless variant. This further supports Honsa's (1965) findings regarding the first introduction of the voiceless variant in Buenos Aires. This study also concluded that the younger population realized the segment as the devoiced [ʃ], and as a result, created a shift in social ideologies from those associated with gender, to ideologies centered on age. Additionally, Chang (2008) supports others' claims (Donni de Mirande 1991, Wolf & Jimenez 1979, Wolf 1984) stating that age has become the influential social factor in determining who will devoice. His study finds that there was no effect of gender and that both males and females from the younger generation preferred the [ʃ] variant in almost every instantiation. Rohena-Madrazo (2013) also finds that there is no significant effect of gender, further supporting the diminishing influence of gender on voicing of the segment in *ʒeísmo*.

As speakers in Buenos Aires made this shift towards the voiceless [ʃ], speakers in Montevideo were still favoring the voiced [ʒ] and did not begin the devoicing process in *ʒeísmo* until several decades later. As recently as 2002, the devoicing of the post-alveolar fricative in Montevideo started to show a transition in the female population, and an even stronger transition in the younger generation. Barrios (2002) found that the sound change in Montevideo was also undergoing social ideological changes, similarly to the changes that were undergone in Buenos Aires a few decades earlier – namely, as the change began to progress rapidly in the female population across socioeconomic classes, the stereotype associated with devoicing became less related to prestige, and more with femininity. Additionally, it was found that the sound change then transitioned, making [ʃ] indicative of the younger generation, while [ʒ] was still commonly found in, and strongly associated with, the older generation in Montevideo.

Barrios (2002) claims that at this time in Montevideo, many speakers were attributing the increase in usage of the devoiced variant to the influence of Argentine television broadcasted in Uruguay. This belief demonstrates that speakers from Buenos Aires had not only established this pronunciation feature as part of their local RPS dialect but they were also assigned and recognized by those residing in the other capital region as having a slight difference from Montevideo speakers. Furthermore, the shift in these ideological changes from stereotypes in prestige, to gender, and then to age – in both countries – represents that speakers from Montevideo were undergoing this language change in the same consistent pattern that was demonstrated by speakers in Buenos Aires. This was occurring across socioeconomic classes which created a shift in both Buenos Aires and Montevideo – at different points in time – from a stigmatized divide of prestige, gender, and age between the voiced and voiceless variants in

their dialect, to an increasingly destigmatized and nearly standardized preference towards the voiceless [ʃ]. Barrios (2002) aimed to determine if RPS speakers were aware of this shift in pronunciation and standardization they were undergoing. This heightened conscious or unconscious acceptance of the voiceless variant is a result of how commonly it was used by the younger generation. Barrios (2002) also found that the younger generation had less self-awareness of the presence of [ʃ] and almost no negative connotations towards its usage; further supporting its progression towards being "normalized".

The literature supports that the devoicing in *ʒeísmo* has progressed similarly in each RPS speaking capital region, with Argentina preceding Uruguay. Recent studies determine that the sound change is still in progress in Montevideo with current social ideologies attributing the growing influence and implementation of the voiceless variant [ʃ] to the younger generation. However, speakers in Buenos Aires have already been determined to have completed the sound change. Speakers' awareness of the sound change and its prevalence can provide a window to their language ideologies about it (Kroskrity 2004).

Aims and hypotheses of the current study

The present study was designed to examine RPS speakers' perceptions of the recent and current sound change their dialect is undergoing. Namely, we hope to determine first, if speakers are aware of the status of the significant transition that has taken place in their local dialect within the last 70-80 years. Secondly, we hope to determine if they are aware that it is becoming less common to hear the voiced variant in daily speech due to the complete change in Buenos Aires and the nearly complete change in Montevideo. This examination of speakers' perceptions is motivated by the potential to provide evidence that can further the study of whether language ideologies have transitioned along with the sound change. The hypotheses for this study are outlined in (1).

(1) Hypotheses

Hypothesis 1 Participants, independent of capital region, will more frequently attribute the voiced post-alveolar fricative [ʒ] to Uruguayan speech.

Hypothesis 2 The capital region in which participants attribute the voiceless post-alveolar [ʃ] will be dependent on the capital region of origin of the participant.

a. Argentine participants will more frequently select 'Argentina' when the audio stimulus contains the voiceless variant [ʃ].
b. Uruguayan participants will inconsistently select 'Argentina' or 'Uruguay' when the audio stimulus contains [ʃ].

Methodology and Design

Data for the current perception study was collected by recruiting Native RPS speakers currently residing in either Buenos Aires or Montevideo to participate in an online perception study. Participants were presented with recorded sentences containing target words with varying pronunciations of the target segment (either [ʒ], [ʃ], or [j]). After listening to each audio stimulus, participants were asked to determine the country of origin of the speaker, with their options being: 'Argentina', 'Uruguay', 'Argentina o Uruguay', or 'Otro' ('o*ther*').

Stimuli

Stimuli for the experiment consisted of 80 disyllabic words. Following the 3:1 ratio for fillers-to-target tokens, the list contained 20 target tokens and 60 fillers. In order to eliminate confounding variables and examine speakers' perceptions, target words were carefully controlled for stress, word length, and environment of the target segment – all words contained at least one instantiation of the vowel [a]. Target tokens contained the segment in question (realized as either [ʒ], [ʃ], or [j]) in word-initial or word-medial (intervocalic) position. Sample target and filler stimuli are in (2), with a full list of stimuli in Appendix A.

(2) Sample and filler stimuli and their environments

Token Environments	Sample token	Filler Environments	Sample filler
#__a	**Ll**ave (‘*key*’)		
o/e__a	Se**ll**a (‘*stamp*’)	o/e__a	Bota (‘*boot*’)
a__o/e	Ma**y**o (‘*May*’)	a__o/e	Dado (‘*given*’)
a__a	Pla**y**a (‘*beach*’)	a__a	Rana (‘*frog*’)

A 44-year-old male, native RPS speaker from the Buenos Aires province of Argentina was recorded to create the stimuli. Recordings were made using a Zoom H4n Pro recorder and a Shure SM10A head-mounted unidirectional microphone in a sound attenuated room in the Mary Ellen Ryder Linguistics Lab at Boise State University. Each of the target tokens were recorded three times – one iteration for each of the three possible variants of the target segment ([ʒ], [ʃ], or [j]).

The 80 stimuli were first randomized, and then pseudorandomized to lower the possibility of priming effects. Three lists were made, using a combination of target words containing the three variants, but only one iteration of each target word was used so that none is heard twice by the same participant. For example, the Spanish word ‘*llama*’ was presented in each list. However, in List 1 it was presented as [**j**ama], in List 2 it was [**ʒ**ama] and in List 3 [**ʃ**ama]. Appendix B includes each of the three lists with the variant used for each target token demonstrated.

Participants

A total of 95 RPS speakers between the ages of 18 and 70 participated in the online study. In the demographic survey following the study, participants were asked to report on their age range, as well as city of birth and places of residence. Participants were also given the option to report gender; however, due to their inconsistencies in choosing to report this piece of demographic data, it was not considered in the analysis that follows. Due to previous findings, (Chang 2008, Rohena-Madrazo 2013), we expect that the exclusion of gender should not affect the results. Along with participants who did not finish the online study, participants who reported to have been born elsewhere but currently residing in either area, or those that reported to live outside of the targeted capital regions in either country, were excluded from the analysis. An additional participant, who selected ‘other’ for the majority of the tokens, was also not considered in the analysis. After excluding these participants, data from 71 participants were admissible for analysis.

Of the 71 participants, 28 were within the ‘young’ (18-34) age range, 41 participants were within the ‘mid’ (35-59) age range and two participants were in the ‘old’ (60+) age range. Thirty-three of the participants reported to be from the Buenos Aires capital region, while 38 reported to be from the Montevideo capital region. Participants were asked to report their city of birth and all of the cities they had resided in during their lifetime to filter out participants that were not native to the region and who could potentially skew the data.

Procedure

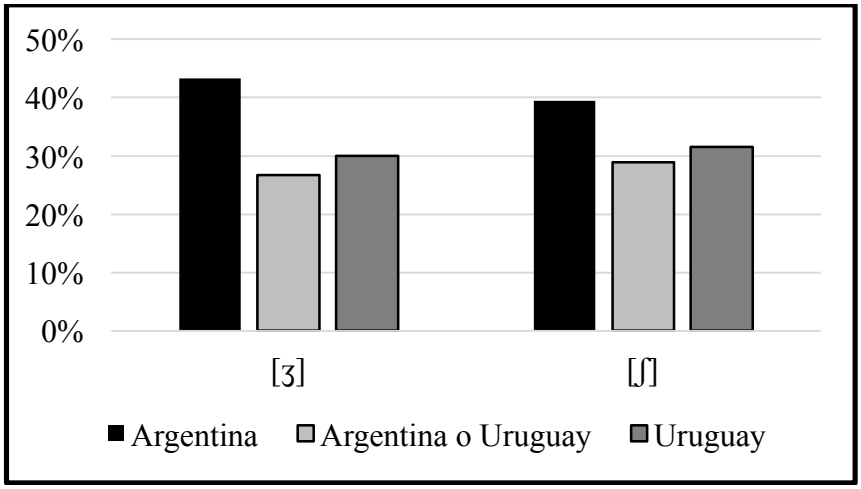
Participants were recruited online using three different methods: through various Facebook pages local to both the Buenos Aires and Montevideo regions, a Facebook ad that targeted people from Buenos Aires and Montevideo, and using a snow ball effect by word of mouth from different connections to people living in Montevideo or Buenos Aires. The online link led participants to select one of three shapes on a blank web page, with each shape linking to a Qualtrics survey using one of the three lists mentioned in Section 3.1. The three lists were monitored throughout the time the survey was available to ensure that the distribution of participants was nearly equal between them. At the end of the experiment, List 1 received 21 responses, List 2 received 26 responses and List 3 received 24 responses.

Results

Looking across all participants, we find that speakers’ perceptions of the two variants make it difficult to attribute either sound to a particular capital region within the larger Rio de la Plata region. This contradicts Hypothesis 1, since it was not the case that the voiced variant [ʒ] was more frequently ascribed to Uruguayan speech

than to Argentine speech, independent of participant origin. In (3) we see this contradiction with either variant being equally likely to be attributed to a given region.

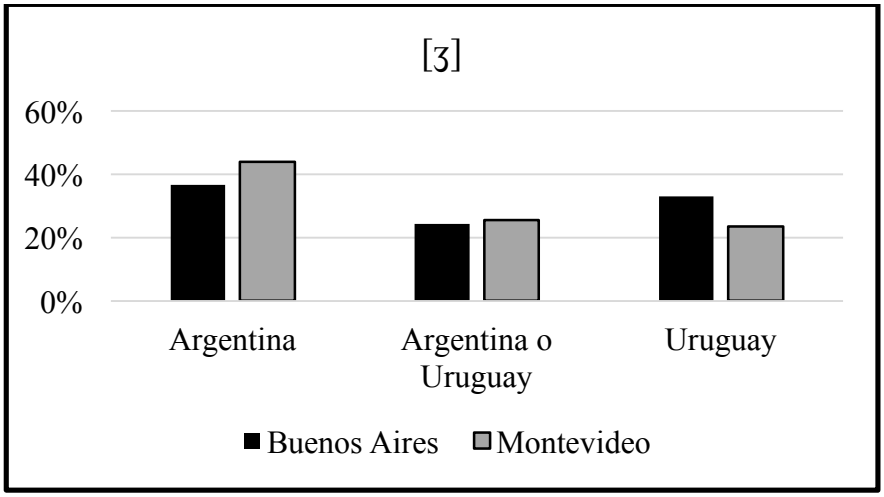
(3) All participant data by sound



This identical pattern between the two sounds is confirmed by results from a repeated measures ANOVA showing that there is no main effect of *sound* ($F(1, 949) = 0.229$, $p = 0.633$), since no particular sound could be attributed to a particular population.

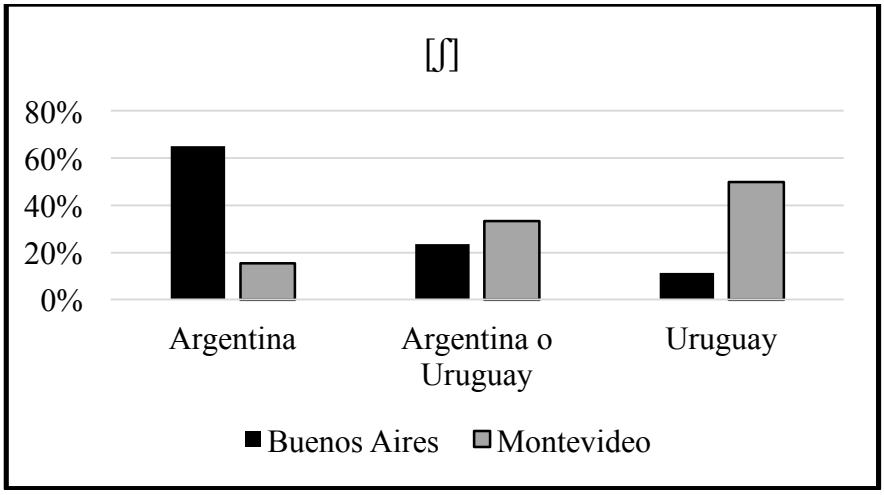
When examining participants' perceptions of the voiced variant [ʒ], while taking into consideration participants' city of origin, it is evident that participants were actually more likely to attribute the voiced variant to Argentina than Uruguay, negating Hypothesis 1. This illustrates that participants are not aware of the fact that the voiced variant is no longer commonly present in the speech of RPS speakers in Buenos Aires. This can be seen in (4).

(4) Perception of [ʒ] by origin



Looking at the voiceless variant [ʃ], however, we see that *region of origin* actually highly influences participants' responses, with both groups attributing the variant to their respective group – showing that there is some awareness to the sound change in their local dialect.

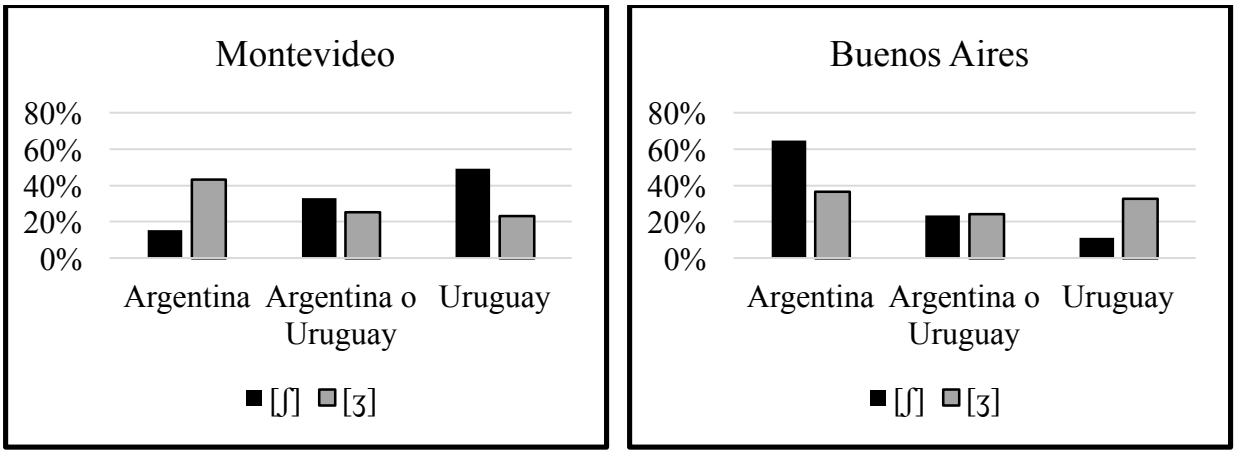
(5) Perception of [ʃ] by origin



This correlation is corroborated in the analysis with a significant interaction between *sound* and *origin of the participant* (F (1, 949) = 7.540, $p = 0.006$). The charts in (4) and (5) illustrate that participants are most likely to attribute the voiceless variant to their respective region of origin within the larger Rio de la Plata region.

Since participants' choices differed based on their responses to the two different variants, there was a main effect of *origin* (F (1, 949) = 52.114, $p < 0.001$). Hypothesis 2 is supported by the data reported in (6). Recall that the hypothesis states that Argentine participants were expected to attribute the voiceless variant to their speech and more frequently attribute the voiced variant to Uruguayan speech, while Uruguayan participants would be more likely to attribute the voiceless sound to both their speech and Argentine speech, and attribute the voiced variant to their speech patterns.

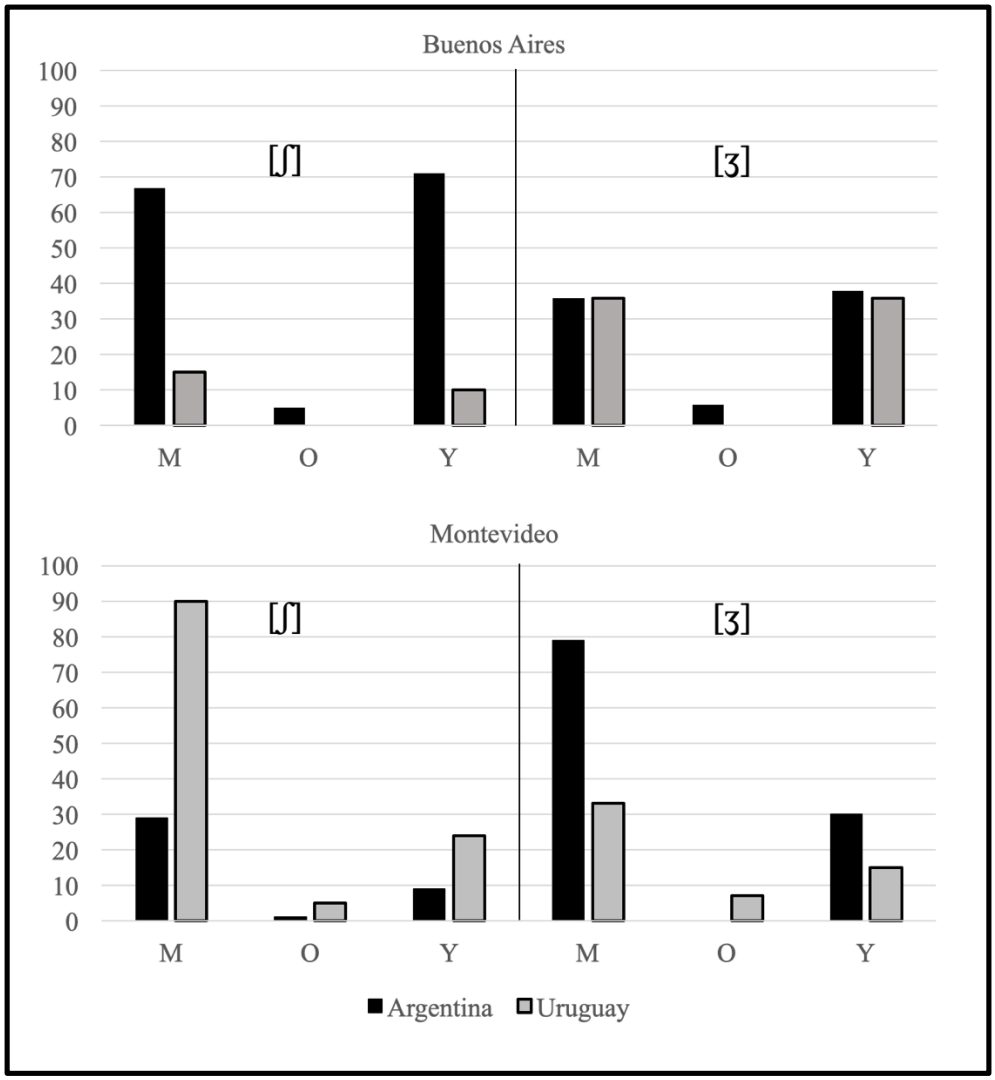
(6) Perception of variant by city of origin of the participant



It can be seen that the country of *origin* significantly affected participants' perceptions of where each variant is being employed. The charts in (6) further support this previously mentioned claim by illustrating that Argentine participants tended to attribute the voiceless variant to their own speech, while Uruguayans tended to claim the voiceless sound as their own. This demonstrates that speakers have an awareness of the progression towards devoicing; however, they are still unaware of just how advanced the sound change is.

In addition to the significant interaction of *origin* and *sound*, there was also a significant interaction of *sound, origin,* and *age* (F (2, 949) = 3.478, $p < 0.031$), as well as *age* and *origin* (F (2, 949) = 10.759, $p < 0.001$). This is seen in (7).

(7) Sound, age, and origin



This indicates that regardless of whether the individual was still developing linguistically or not when they were introduced to the voiceless variant, the sound change has been influential enough to dilute the effect of some preexisting ideologies. The incongruence between members of the same age group across capital regions, comparing the top figure with the bottom one in (7), also aligns with the timing differences between the sound changes in the different regions.

Discussion

The results of this study call into question the status of the social ideologies associated with the devoicing in *ʒeísmo*. Recent studies (Barrios 2002, Rohena-Madrazo 2013) have provided inconclusive data on whether or not speakers are aware of the difference in voicing, and those that reported to be aware had differing opinions. However, the findings in this study support the claim that speakers are at least aware of the shift their own capital region has undergone, while they had differing opinions on the status of the devoicing in the other region. While previous

research (Honsa 1965, Wolf & Jimenez 1979, Barrios 2002) on the sound change has acknowledged the presence of language ideologies, these studies have failed to substantially address their presence and transition throughout the progression of the sound change. This gap in the literature provides an opportunity for further explicit research on speakers' language ideologies related to the devoicing in *ʒeísmo*.

Conclusion

In this paper, we detail a perception experiment designed to determine native Rioplatense Spanish speakers' perceptions of the status of devoicing in *ʒeísmo*. Results indicate that age is a determining factor in speakers' perceptions, which can be attributed to the discrepancy in the start of the devoicing in each region. We have also determined that speakers are aware of the sound change that has taken place in their respective capital region of the larger Rio de la Plata region; however, they remain relatively unaware of the status of the change in the opposite capital region.

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Appendix A

Word list

ga**ll**o	be**ll**a	masa	lado	sano
ta**ll**e	pla**y**a	ceja	nace	dado
o**ll**a	**ll**anta	fecha	mapa	larga
llave	se**ll**a	lata	vena	selva
llana	vela	lazo	ronda	vaso
yate	baña	beca	taza	hace
e**ll**a	leva	nada	bate	rana
joya	cada	mano	lago	pata
llama	mate	raro	toca	besa
ma**ll**a	sapo	rama	daño	pera
ca**y**o	copa	roca	malo	cama
ra**y**a	ropa	manta	toma	pasa
ca**ll**e	vale	marca	caldo	salva
ma**y**o	papa	caro	venta	dato
ca**ll**a	tela	tapa	rota	plata
ha**y**a	paso	carta	mesa	bota

Appendix B

Survey lists

***List 1*:**	[e**ʒ**a]	[ca**j**e]	pasa
vela	beca	lago	[be**j**a]
baña	nada	toca	salva
leva	mano	daño	[pla**j**a]
cada	raro	malo	dato
[ga**ʒ**o]	[jo**ʒ**a]	toma	[**ʒ**anta]
mate	rama	[ma**ʒ**o]	plata
sapo	roca	caldo	[se**ʃ**a]
copa	manta	venta	bota
[ta**j**e]	**[j**ama]	rota	
ropa	marca	mesa	
[o**ʃ**a]	caro	[ca**j**a]	
vale	tapa	sano	
papa	carta	dado	
tela	[ma**ʒ**a]	larga	
[**j**ave]	lado	selva	
paso	nace	vaso	
masa	[ca**ʃ**o]	[ha**ʃ**a]	
ceja	mapa	hace	
[**ʃ**ana]	vena	rana	
fecha	ronda	pata	
lata	taza	besa	
[**ʒ**ate]	[ra**ʃ**a]	pera	
lazo	bate	cama	

List 2:

vela
baña
leva
cada
[ga**ʃ**o]
mate
sapo
copa
[ta**ʒ**e]
ropa
[o**j**a]
vale
papa
tela
[**ʒ**ave]
paso
masa
ceja
[**j**ana]
fecha
lata
[**ʃ**ate]
lazo
[e**ʃ**a]
beca
nada
mano
raro
[jo**ʃ**a]
rama
roca
manta
[**ʒ**ama]
marca
caro
tapa
carta
[ma**ʃ**a]
lado
nace
[ca**j**o]

mapa
vena
ronda
taza
[ra**j**a]
bate
[ca**ʒ**e]
lago
toca
daño
malo
toma
[ma**ʃ**o]
caldo
venta
rota
mesa
[ca**ʒ**a]
sano
dado
larga
selva
vaso
[ha**j**a]
hace
rana
pata
besa
pera
cama
pasa
[be**ʒ**a]
salva
[pla**ʒ**a]
dato
[**ʃ**anta]
plata
[se**j**a]
bota

List 3:

vela
baña
leva
cada
[ga**j**o]
mate
sapo
copa
[ta**ʃ**e]
ropa
[o**ʒ**a]
vale
papa
tela
[**ʃ**ave]
paso
masa
ceja
[**ʒ**ana]
fecha
lata
[**j**ate]
lazo
[e**j**a]
beca
nada
mano
raro
[**j**oya]
rama
roca
manta
[**ʃ**ama]
marca
caro
tapa
carta
[ma**j**a]
lado
nace
[ca**ʒ**o]

mapa
vena
ronda
taza
[ra**ʒ**a]
bate
[ca**ʃ**e]
lago
toca
daño
malo
toma
[ma**j**o]
caldo
venta
rota
mesa
[ca**ʃ**a]
sano
dado
larga
selva
vaso
[ha**ʒ**a]
hace
rana
pata
besa
pera
cama
pasa
[be**ʃ**a]
salva
[pla**ʃ**a]
dato
[**j**anta]
plata
[se**ʒ**a]
bota