VARIANTES DE /S/ Y AJUSTES DEL HABLA EN LOS ASENTAMIENTOS ANTIGUOS Y NUEVOS DE VERACRUZANOS EN CIUDAD JUÁREZ

/S/ VARIATION AND SPEECH ACCOMMODATION IN NEW AND OLD SETTLEMENTS OF VERACRUZANOS IN CIUDAD JUÁREZ

Sandra Esparza y Natalia Mazzaro[1]

Recibido: 8 de agosto de 2018. Aceptado: 13 de octubre de 2018

Resumen: Este estudio investiga cómo el habla de los veracruzanos recién llegados y los ya establecidos en Ciudad Juárez cambia después de inmigrar a esta ciudad fronteriza. Nos enfocamos en la aspiración de la /s/, la cual es variablemente aspirada ([h]) en Veracruz pero producida como una alveolar fricativa ([s]) en Ciudad Juárez. La aspiración de la /s/ está estigmatizada en Ciudad Juárez, es por eso que en esta investigación analizamos si los inmigrantes de Veracruz se acomodan o (cambian) su pronunciación de la /s/ para asemejar aquélla de los juarenses y así, ser considerados como parte de la sociedad que domina.

Treinta y una entrevistas sociolingüísticas fueron hechas con hombres y mujeres que nacieron y crecieron en Veracruz pero inmigraron a Ciudad Juárez para trabajar en las fábricas conocidas como maquiladoras. Un promedio de 2,000 palabras con /s/ fueron extraídas y codificadas basándose en factores sociales y lingüísticos. Los resultados del análisis de regresión logística binaria muestran que el habla de los veracruzanos es afectada por un conjunto de factores sociales y fonológicos que incluyen el género, educación y la posición de la /s/ en la sílaba. Con respecto a la pregunta de si los veracruzanos se acomodan al dialecto de los juarenses, las diferencias en la aspiración entre inmigrantes recién llegados y establecidos no fueron estadísticamente significativas. Sin embargo, se encontró una menor cantidad de [h] en los veracruzanos que ya tienen mas

viviendo en Ciudad Juárez. A diferencia de estudios anteriores (ej. Klee, 2018) que registran convergencia de habla en la segunda y tercera generación, nuestro estudio sugiere que puede existir convergencia al dialecto local en aquellos que forman parte de la primera generación.

Palabras clave: Español de México, variaciones de /s/, /s/ en español, aspiración de /s/, migración interna, acomodación del habla, convergencia de hablas.

Abstract: This study investigates whether the speech of new and old migrants from Veracruz changes as a result of their moving into Ciudad Juárez. Particularly, we focus on the realization of /s/, which is variably aspirated ([h]) in Veracruz but realized as an alveolar fricative ([s]) in Ciudad Juárez. Since /s/ aspiration is heavily stigmatized in Ciudad Juárez, we explore whether new and old migrants from Veracruz will accommodate (or shift) their pronunciation of /s/ to resemble that of the Juarenses and, thus, more easily fit into the dominant society.

Thirty-one sociolinguistic interviews were conducted with female and male adults, who were born and raised in Veracruz but moved to Ciudad Juárez to work in the maquiladoras. Almost 2000 tokens of /s/ were extracted and coded for a variety of social, linguistic and stylistic factors. The results of binary logistic regression models show that the speech of Veracruzanos is affected by an interplay of social and phonological factors, which include gender, education and the position of /s/ in the syllable. With regard to whether Veracruzanos accommodate to the speech of Juarenses, the results did not turn out to be significant. Yet, there was a lower rate of [h] in older settlements of Veracruzanos suggesting that there is some convergence to the local dialect. This is an interesting finding, since previous work (e.g. Klee et al. 2018) found evidence of phonetic convergence across different generations of migrants (second and third) yet, in our study, we find evidence of convergence within first generation newcomers.

Key words: Spanish of Mexico, /s/ variation, Spanish /s/, /s/ aspiration, internal migration, speech accommodation, speech convergence.

1. Introducción

Variation in the realization of Spanish /s/ is a Pan-Hispanic phenomenon. It has been observed in Spain (Penny,

2000) and all over the American Continent (Lafford, 1983; Sanou de los Rios, 1989; Amastae, 1989; Guy, 1996; Alfaraz, 2000; Mazzaro, 2005; Carvalho, 2006; Bros, 2013) including the U.S. (Bernate, 2016; O'Rourke & Potowski, 2016). The allophonic variants of phoneme /s/ include the standard [s], the aspirated [h], the phonetic zero Ø (/s/ deletion) and the voiced variant [z]. The present paper looks at the alternation between standard [s] (including its voiced variant [z][2]) and non-standard [h] in the Spanish of Veracruz.

The aspirated variant of /s/ is very common; it occurs in about half of the Spanish-speaking world (Terrell, 1975) and constitutes one of the most useful stylistic and sociolinguistic variables that characterizes Spanish dialects and discourse models (Lipski, 1991). Within Mexico, aspiration has been found in the coast of Guerrero, Veracruz and Tabasco (Lope Blanch, 1990; Moreno de Alba, 1994). In all these places, aspiration is regarded as the non-standard, often stigmatized, variant commonly found among speakers with lower levels of formal education (Cedergren, 1973; Ceballos Dominguez, 2000; Carvalho, 2006). The rest of Mexico seems to be quite aware of non-standard [h] and in many places, including Ciudad Juárez, the speakers with the aspirated variant are imitated in a condescending manner. Figure 1 is a meme from Facebook illustrating this point.



Figure 1. Facebook meme making fun of how *veracruzanos*[3] talk with aspirated /s/.

The meme in Figure 1 reads: *Cuando un jarocho se sube a un Uber y quiere bajar la ventana. A cuaj lej aplajto?* 'What happens when a "jarocho" takes an Uber and wants to draw down the window? He says: which one do I press?'. The [h] variant is represented by the grapheme 'j', which probably shows how [h] is perceived by *juarenses*[4]. Another interesting feature from this meme is that the person from Veracruz is represented with a monkey face. This is because people from Ciudad Juárez call the people from Veracruz *changos* 'monkeys' or *juarochos*[5], providing further evidence of discrimination against the people from Veracruz.

Given the linguistic discrimination against Veracruzanos, the present paper investigates whether in order to fit in the new environment (Ciudad Juárez) Veracruzanos modify their speech to erase those features that identify them as coming from Veracruz or whether they maintain these features as part of their identity. In particular, we explore whether /s/ aspiration, a characteristic feature of Veracruz Spanish, gradually disappears after years of living in Ciudad Juárez. This work investigates the interplay of linguistic and extra-linguistic factors that influence /s/ aspiration in Veracruz Spanish.

In what follows, we discuss previous work related to /s/ aspiration and speech accommodation or convergence. We start with a brief description of the community under study, the main characteristics of the Spanish of Veracruz and how it contrasts with that of Ciudad Juárez. Then, we discuss previous work on /s/ aspiration focusing on Mexican Spanish.

2 Background

2.1 The community under study

Ciudad Juárez has been considered a land of opportunity due to the many job positions created by international companies and factories (known as *maquiladoras)* established there. Since the year 2000, immigration rates to the city increased considerably as a result of the arrival of

immigrants from the states of Veracruz, Chiapas, Tabasco and Oaxaca (Cruz, 2012). Table 1, reproduced from INEGI (2010), shows the percentages of immigrants by places of origin who settled in the city in 2010.

Place of Origin	Immigrants	Percentage
Coahuila	4,168	13.2
Chiapas	1,661	5.3
Durango	6,512	20.7
Mexico	1,259	4.0
Oaxaca	1,745	5.5
Veracruz	6,197	19.7
Zacatecas	1,301	4.1
Other States	8,878	27.5
Total	31,520	100

Table 1. Immigrants to Ciudad Juárez by place of origin in 2010

With a total number of immigrants of 6,197, Veracruzanos were the second largest group arriving in Ciudad Juárez in 2010 (INEGI, 2010). Most of the people from Veracruz living in Ciudad Juárez come from urban areas or rural municipalities (Mestries & Perez, 2014) looking for jobs due to the economic crisis and poverty that affected the state of Veracruz after the collapse of the oil industry. This economic crisis negatively impacted the agricultural and fishing sectors of Veracruz causing a massive labor loss and, subsequently, an important emigration of Veracruzanos to different parts of the Mexican border (Mestries & Perez, 2014) looking for jobs in the industrial sector (Anguiano, 2005).

The improved economic situation of Juarenses who have access to international sources of work vis-à-vis the poverty of newcomers who come looking for jobs reinforces the social separation between locals and newcomers. Thus, Juarenses tend to relate poverty with immigrants from the south. A common belief among Juarenses is that "All Juárez social problems are due to the immigration of people from Southern Mexico" (Vila, 2000:10), who are also blamed for stealing the jobs that belong to Juarenses.

Immigrants, on the other hand, blame Juarenses for being *flojos* 'lazy' at work and for not giving them the chance to progress at work (Vila, 2000). The following excerpts from our interviews illustrate some of these points:

Speaker UT15

> *"Hay gente que es mala onda, no sé si es envidia, nos miran así, luego nos dicen: ¡Ay qué Jarochos matados! Nos tratan mal porque somos de otro estado. [...] Pues compañeros en la maquila, trabajamos en maquila y así nos miran feo ósea no nos dan oportunidad de crecer en el trabajo, y sí nos agüitamos la verdad".* Some people are not nice, I do not know if it is jealousy or what. They look at us like this, they tell us, workaholic *Jarochos*, they treat us bad because we are from another state [...]. Well, co-workers in the factory, we work in a factory, and they give us nasty looks, I mean, they do not give us the opportunity to progress at work and we truly feel bad.

Speaker UT18

> *"Hay mucha discriminación [...] se dan a entender que hablan muy bien cuando están hablando peor que uno, y se burlan como habla uno, el veracruzano."* There is a lot of discrimination [...] They think they speak better than us but they speak worse, and they make fun of how we, the Veracruzanos speak.

Speaker UT23

> *"También hay mucho racismo [...] hasta inclusive los mismos policías te identifican, te paran, te revisan y todo y ya te dejan ir, y en el trabajo no pues porque es de Veracruz (Jarocho) cualquier cosa así, entonces pues hay discriminación o existe el bullying [...]."* There is a lot of racism, [...] even the police identify you, stop you, they search you and they let you go. And, at work, there is discrimination and bullying against those who are from Veracruz (*Jarocho*) [...].

Vila (2000:4) argued that, from the point of view of identity construction, "it is not an easy thing to live on the U.S.-Mexico border." There is an arbitrary system of clas-

sification to make sense of people's social identities. In that system, categories like Fronterizos, Juarenses and Norteños are used to make sense of "us", those who are from Juárez, and categories like Sureños and Chilangos are used to make sense of "them", those who live elsewhere in Mexico (Vilas, 2000:9). This arbitrary system of classification based on regional belonging can become a hindrance in the successful settlement of many immigrants in Juárez.

In the next section, we explain how social discrimination turns into linguistic prejudice against Veracruzanos and whether this discrimination may affect their way of talking over time. To this purpose, the next section discusses the specific phonetic aspects that characterize the speech of newcomers and that of the native Juarenses.

2.2 The Spanish of Veracruz and Ciudad Juárez and /s/ aspiration

Consonant weakening affecting /s/ is a common linguistic feature from the coasts of Mexico, which includes the states of Veracruz and Tabasco. This region is referred to as the Mexican Spanish of the Gulf coast or *costeño* dialect (see Figure 2).



Figure 2. Map of Mexico showing the different regional dialects. Veracruz Spanish is part of the *costeño* dialect, while Ciudad Juárez Spanish is part of the *norteño occidental* dialect (Moreno de Alba, 1994)

Other linguistic features of the *costeño* dialect include liquid neutralization, velarization of /n/ in final position, /r/ deletion in infinitives and /d/ deletion in intervocalic unstressed positions, e.g. *arró con pecao (arroz con pescado)* 'rice with fish', *puee (puede)* 'can do it', *toito (todito)* 'all' (Lope Blanch,1990; Moreno de Alba,1994). Thus, overall consonant weakening and deletion are rather frequent in Veracruz Spanish (Moreno de Alba, 1994).

The dialect spoken in the Northern part of Mexico, including Ciudad Juárez, is characterized as *norteño occidental* (Moreno de Alba, 1994). One of the most salient linguistic features of this northern dialect is the weakening of the affricate /tò/ (Lope Blanch,1990) variably realized as a fricative [ò] (Amastae, 1996). Another characteristic feature of the *norteño* dialect is vowel weakening in unstressed syllables between voiceless fricative and stop consonants (e.g. *pues* 'ps', *entonces* 'entons' *necesito* 'nessito') (Moreno de Alba, 1994). With regard to the variable in question, aspiration has not been observed as a common feature in the speech of Ciudad Juárez, where the standard [s] appears categorically in this dialect (Lope Blanch, 1990).

Aspiration was first observed in Veracruz by Menéndez Pidal (1958). The author stated that aspiration was more common in word internal position such as *cana*[h]*ta* 'basket', *bu*[h]*car* 'to look for', and in word final position such as *lagrimone*[h] 'tears'. Several other studies have observed the occurrence of aspiration in Veracruz (López Chávez, 1977, Gutiérrez Eskildsen, 1978, and Williamson, 1986) yet, to the best of our knowledge, the only quantitative study on aspiration in Veracruz was done by Ceballos Domínguez (2006).

Ceballos Dominguez' (2006) study was a variationist sociolinguistic analysis of 36 interviews conducted in Veracruz and the nearby city of Boca del Río. Female and male participants of different ages, social class and educational levels were recorded during sociolinguistic interviews. The realization of /s/ showed the following distribution: [s] 60%, [h] 37% and Ø 3%. The multivariate analysis indicated that the most important linguistic and

social factors that favor aspiration on Veracruz Spanish include: 1) phonetic context, specifically a following consonant; 2) word final position; 3) older participants (40+); 4) males; and 5) participants with lower levels of formal education. Given the preference of [h] by the older generations and [s] by the younger, Ceballos Domínguez (2006) concluded that the weakening process is a case of language change in progress, whereby the rates of aspiration are gradually receding across time.

Given that Ceballos Domínguez (2006) conducted the only variationist sociolinguistics study on Veracruz Spanish, it will be used to compare our data in order to show whether the pattern of aspiration of Veracruzanos living in Ciudad Juárez resembles that of Veracruzanos living in Veracruz. And, if not, whether there is evidence of linguistic conversion[6] towards the Spanish of Ciudad Juárez. The next section explains the procedure of data collection and analysis employed in this study.

3. Methodology

3.1 Participants and data collection

The data collected in this study comes from sociolinguistic interviews with 31 informants, all native speakers of Veracruz Spanish living in Ciudad Juárez. The first author conducted these interviews in the summer of 2017. Participants for the study were chosen on the basis of their membership into different social categories (education, social class, age, sex and years living in Ciudad Juárez), as shown in Table 2.

Speakers	Gender	Age	Education	Socio-Economic Class	Length of stay in CJ
UT01	Female	38	Finished university	Lower-Middle	10 yrs.
UT02	Male	46	Completed Middle School	Lower-Middle	10 yrs.
UT03	Female	35	Completed Middle School	Lower	1 yr.
UT04	Male	39	Finished University	Lower-Middle	10 yrs.
UT05	Female	41	Completed Middle School	Lower-Middle	10 yrs.
UT06	Female	35	Finished University	Lower-Middle	10 yrs.
UT07	Male	35	Completed Middle School	Lower-Middle	10 yrs.
UT08	Female	39	Finished University	Lower-Middle	10 yrs.
UT09	Female	61	Completed Elementary	Lower-Middle	10 yrs.
UT10	Female	34	Completed High School	Lower-Middle	10 yrs.
UT11	Female	50	Completed High School	Lower-Middle	10 yrs.
UT12	Male	58	Completed Elementary	Lower	1 yr.
UT13	Female	22	Completed Middle School	Lower	2 yrs.
UT14	Female	19	Some High School	Lower	1.5 yr.
UT15	Female	25	Completed High School	Lower	1 month
UT16	Female	41	Completed Elementary	Lower	1 yr.
UT17	Female	25	Completed Middle School	Lower	2 yrs.
UT18	Male	28	Completed High School	Lower	3 yrs.
UT19	Male	42	Completed Middle School	Lower	2 yrs.
UT20	Male	28	Some University	Lower	1 yr.
UT21	Male	26	Completed High School	Lower	2 yrs.
UT22	Male	23	Completed Middle School	Lower-Middle	8 yrs.
UT23	Male	25	Completed High School	Lower-Middle	8 yrs.
UT24	Male	30	Completed Middle School	Lower	1 yr.
UT25	Male	22	Completed Elementary	Lower-Middle	9 yrs.
UT26	Male	23	Completed Middle School	Lower	4 months
UT27	Male	23	Completed Elementary	Lower-Middle	10 yrs.
UT28	Male	30	Completed Elementary	Lower	6 months
UT29	Male	23	Completed Middle School	Lower	3 months
UT30	Female	24	Completed High School	Lower-Middle	8 yrs.
UT31	Male	21	Some University	Lower	3 yrs.

Table 2. Characteristics of the participants.

Overall, there were 14 female and 17 male participants. Their distribution across education levels was the following: Elementary school N=7; Middle School N=11; High School N=7 and University N=6. Concerning social class, 16 participants were categorized as belonging to the Lower Class and 15 to the Lower-Middle class (see section 3.3.2). Age groups were not evenly distributed so it was not possible to reliably study this factor. Most of the par-

ticipants (N=15) were less than 29 years; 9 participants were between 30-39 years and 7 participants were 40+. This distribution reflects the ages of migrants from Veracruz who tend to be men between the ages of 15-39 (Mestries & Perez, 2014). Finally, Length of Stay in Ciudad Juárez was defined as short (for 3 years or less) or long (for 8 years or more); there were no subjects with length of stay between 3 and 8 years.

Participants were recruited using the 'friend-of-a-friend' technique (Milroy, 1987). This technique is based on contacting potential informants through common friends and is particularly appropriate for the community under study. Due to a high level of crime in the area and the fact that Veracruzanos seem to trust better the people from their own state, initial contacts were all from Veracruz. These contacts helped approach other Veracruzanos in the two areas where they resided: *Las Haciendas* and *Las Torres*. To contact these participants, the first author got involved in church related events and attended several open markets called *segundas*, where people from Veracruz buy and sell second-hand items.

The old settlements of Veracruzanos, those who have been living in Ciudad Juárez for 8 years or more, concentrated in an area of Ciudad Juárez called *Las Torres*. The Veracruzanos in *Las Torres* live in modest houses built by the government that generally contain two bedrooms, a small patio a kitchen and a bathroom. Most of these families own a car that is shared by the members of the household. All these houses were equipped with services such as running water and electricity.

The Veracruzanos who arrived in Ciudad Juárez in the last three years (or less) resided in a different area of the city called *Las Haciendas*. Some of the houses in these areas had been abandoned when Ciudad Juárez was hit by high levels of drug related crimes during 2005-2010 (Toyes & Vargas, 2013). Most recent arrivals would occupy empty houses and get electricity and utilities from neighboring houses. Living in abandoned houses has the advantage of free rent and free utilities, which is badly needed by the recent arrivals working in *maquiladoras* or factories with a minimum wage of $60 dollars per week. Most of the fam-

ilies in *Las Haciendas* do not own a car, so they use public transportation to go to work.

The sociolinguistic interviews conducted for our study followed the Labovian methodology with modules of questions about different topics (Labov, 1984). The first set of questions started with the topic of demography and the last set concluded with considerations about language. Other questions included Veracruzanos' experience arriving in Ciudad Juárez, the things that they miss the most from Veracruz, work, religion, economy and traditional food. The interviews lasted about an hour and participants were compensated with $90 Mexican pesos, equivalent to US$5 for their participation. Since this study focuses on a sound variation, it was important to conduct the interviews in a quiet environment such as the participants' own homes or a classroom at a church.

3.2 Data measurement and instruments

Interviews were recorded with an HP 2011 laptop computer, using Audacity 2.1.2 (Mazzoni, 2016) and an external microphone placed next to the participant's mouth. Interviews were transcribed, and relevant tokens were coded individually in a Microsoft Excel spreadsheet. Sixty tokens containing /s/ were randomly extracted from each interview. These tokens were auditorily analyzed and coded as [s], [h] or Ø. The first ten minutes of the interview were excluded from analysis, since subjects may still be focusing their attention on their speech because of the tape recorder and the interview situation with a stranger (Labov, 2001). This uncomfortable feeling is supposed to subside with time and as informal topics are being introduced into the conversation. Although care was taken to obtain good quality recording, some tokens had to be excluded because they were not clearly heard or produced, while other tokens were subject to acoustic analysis using Praat (Boersma & Weenink, 2016), if the specific variants under study were not clearly discriminated. The following figures show spectrograms and spectrums of the variants in question ([s], [h] and Ø) followed by a discussion of the acoustic characteristics of each specific variant that were considered in order to classify them.

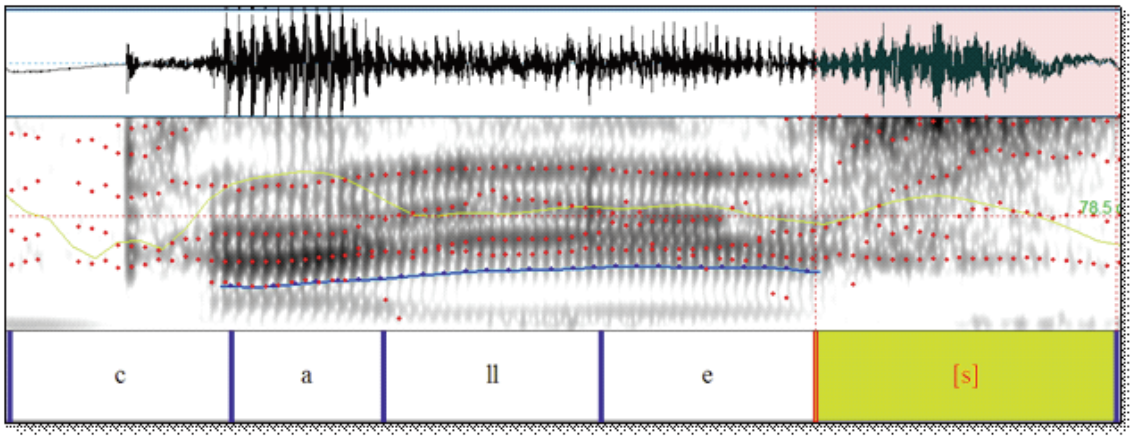

Figure 3. Alveolar voiceless fricative [s] in absolute final position in the word *calles* [ká es] ('streets') extracted from an interview with a male speaker from Veracruz (Part018).

Both [s] and [h] are voiceless fricatives produced when air passes through a rather narrow constriction causing turbulence noise in the acoustic signal. Due to its greater noise energy, the alveolar fricative [s] is called a sibilant. Alveolar fricatives are the easiest to identify when looking at the waveform, even more so in a spectrogram, because they involve a concentration of noise in the higher frequencies (Colantoni et al., 2015). This aperiodic noise, shown as a dark area in Figure 3, is well above 4000 Hz.

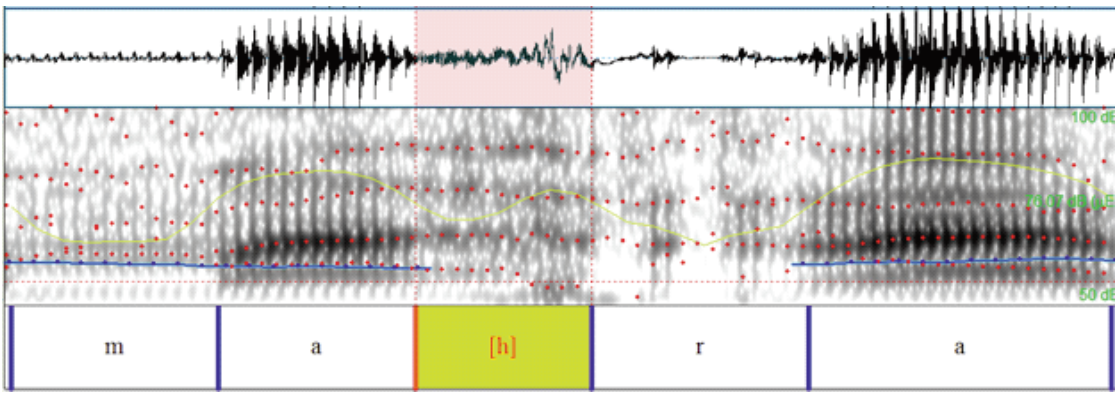

Figure 4. Glottal fricative [h] in word final position in the word *mas* [mah] ('more'), followed by the word *rápido* ('quick') extracted from an interview with a female speaker from Veracruz (Part008).

The reader will quickly notice that [s] and [h] differ in their noise patterns: where the noise is distributed over a large range of frequencies for [h] (Figure 4), there is a

clear concentration of high-intensity noise in the upper frequencies for [s] (Figure 3). In addition, the aspirated variant [h] has lower noise energy than [s] and, as a result it is called non-sibilant. Formants from the previous vowel continue along the [h] segment making the glottal fricative look like an aspirated (or noisy) vowel.

The zero variant is the omission of the sound in the spectrogram and the waveform, as shown in Figure 5 where /s/ has been deleted from the word *titulareØ* ('headlines').

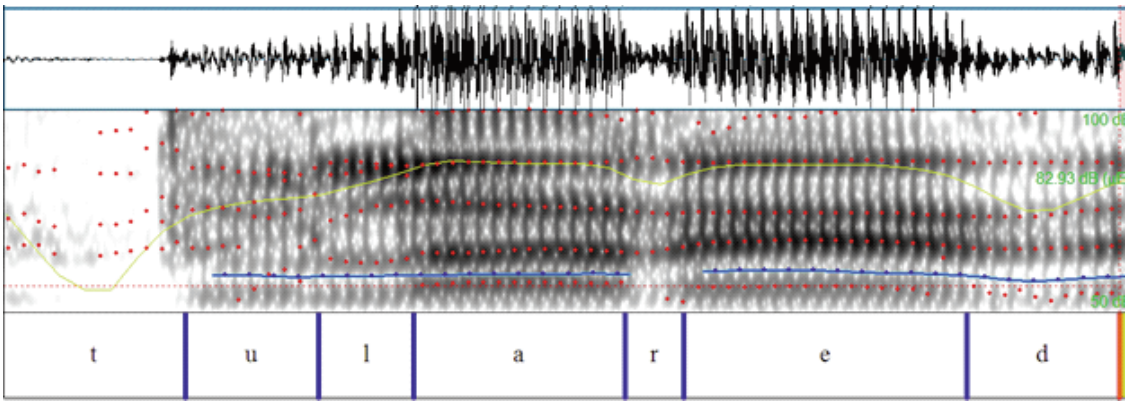

Figure 5. Zero variant in word final position in the word *titulares* [titulá eØ] ('headlines'), followed by the word *de* ('of') extracted from an interview with a male speaker from Veracruz (Part002).

As previously stated, all tokens containing the sounds under study were auditory and, if necessary, acoustically analyzed. About 1,921 words with /s/ were extracted from the sociolinguistic interviews. For each of these tokens, we coded for a number of linguistic and social factors hypothesized to influence the realization of the variable. The following is a brief description of the factors considered in the analysis[7].

3.3 Intra-linguistic and extra-linguistic factors

3.3.1 Intra-Linguistic Factors: Following segment, preceding segment and /s/ position

The position of sounds within sequences, especially syllables or words, is critical in phonological processes such as coda weakening (Moreno-Fernández, 2011). Previous studies have shown that phonetic context plays a big role

on /s/ weakening (e.g. Cedergren, 1973; Terrell, 1978; Poplack, 1980). Studies on /s/ aspiration in Mexican Spanish (Moreno de Alba, 1988; Lope Blanch,1990; Samper Padilla, 2001; Ceballos Domínguez, 2006) have also confirmed the strength of contextual factors on the occurrence of [h].

3.3.2 Extra-linguistic factors: Word Frequency, Gender, Education, Social Class, Age and Time Living in Ciudad Juárez.

Bybee's (2007) work showed that the phonological properties of words are influenced by whether they occur with low, medium or high frequency. Her work on t/d deletion has shown that high-frequency words undergo weakening more rapidly than low-frequency words. In this study, word frequency was analyzed separately in order to examine whether aspiration is affected by how frequently a word occurs in speech. The list of frequent words was selected from the corpus of the Real Academia Española (RAE, 2012). Words were considered frequent if they appeared on the first 100 words of the 1,000-word list of frequent words in this corpus. The words that did not appear on this list were considered non-frequent.

Gender is a major influence on language use (Labov, 1990). Variation according to gender appears to be universal: For stable sociolinguistic variables, men use a higher frequency of nonstandard forms than women (Labov, 1990). In addition, males appear to favor more localized variants, which carry some kind of identity-based social meaning in the local community, whereas females identify more with supra-local variants in speech (Milroy & Gordon, 2003). Likewise, previous analysis of Veracruzano speech showed that men aspirate more than women (Ceballos Dominguez, 2006). Given the stigmatized nature of aspiration in Ciudad Juárez and the fact that men tend to use more locally-based variants, we expect to find more aspiration in the speech of male Veracruzanos.

Aspiration is considered incorrect by traditional prescriptive grammars of the language and, therefore, it is negatively correlated with higher levels of formal education (Cedergren, 1973; Weinberg, 1974, Sanou de los Rios, 1980). Dominguez Ceballos (2006) found that /s/ aspira-

tion was favored by people with low education levels (elementary and middle school) and disfavored by those with higher education levels and greater financial resources. Since in Ciudad Juárez aspiration is a stigmatized feature, we expect to find the same trends as previous studies (Dominguez Ceballos, 2006).

The formal education of our participants was categorized in terms of having accomplished or attended the four levels of education: primary school, middle school, high school and university. Since our preliminary analyses showed that participants who had completed primary and middle schools behaved similarly, we collapsed these two levels into one: Lower Education. Likewise, those attending high school and university educations had rather equal patterns of variation and, thus, these levels were collapsed into one group called: Higher Education.

The study by Ceballos Dominguez (2006) showed that /s/ aspiration is affected by social class. Specifically, lower socio-economic classes tend to aspirate /s/ more frequently than the higher ones. Yet, as stated in section 3.1., because most of the people from Veracruz who move to Ciudad Juárez are part of the working class, in this study we only focus on two socio-economic groups: Lower (L) and Lower-Middle (LM). Those who have their own houses with utility services and have a car were classified as belonging to the LM class. As stated, they reside in a neighborhood called "*Las Torres*" on the eastern part of the Ciudad Juárez. Conversely, those who do not own a house and a car were classified as belonging to the L class. These participants occupy previously abandoned houses in a neighborhood called "*Las Haciendas*" on the southeast part of the Ciudad Juárez (Instituto Municipal de Investigación y Planeación, 2010).

With regard to the effect of age on language use, it is widely known that not all age groups speak the same. If these differences continue throughout life, they can lead to language change. Some variation in the pronunciation can remain stable, fluctuating within age groups but not necessarily across time (Labov, 2001). For stigmatized variants in stable variation younger and older speakers in the lower socio-economic groups show higher rates of use of the non-standard forms. With regard to /s/ aspiration,

Ceballos Dominguez (2006) found that subjects in their 40s and older favored aspiration while those younger than 40 disfavored it.

Otheguy et al.'s (2007) study traced how the speech of migrants changed as a result of moving into another dialectal area. This study analyzed the rates of overt pronouns in speakers from different dialect regions (Caribbeans vs. Mainlanders) and different generations (those recently arrived vs. those born and/or raised in New York). Their results revealed changes in the speech of different generations of Caribbeans and Mainlanders who are converging to one another. Likewise, in our own study, we analyze whether the linguistic differences that Veracruzanos initially bring to Ciudad Juárez tend, with the passage of time and under the pressure of dialect contact, to weaken or perhaps level out altogether. Specifically, we investigate whether Veracruzanos who are in daily interaction with Juarenses show a decrease in the frequency of /s/ aspiration. In order to measure this, the subjects were divided in to two groups based on the number of years the participants have spent in Juárez: Group A (0-3 years) and Group B (8-10 years). These time frames were based on previous studies on phonetic accommodation in Spanish (Pesqueira, 2004; Rodriguez Cadena, 2006; MacLeod, 2012; O'Rourke and Potowski, 2016). Since /s/ aspiration is stigmatized in Juárez, we predict that the rate of aspiration should show a negative correction with the number of years the participants have spent in the city (more years, less aspiration). In other words, we predict that Veracruzanos will converge towards the speech of Juarenses to decrease social distance and make their settling experience much easier. We investigate these questions in the next section.

4. Results

4.1 Distributional analysis

The overall distribution of /s/ variants in Veracruz Spanish (Table 3) shows that the sibilant is the most com-

mon variant in the speech of Veracruzanos, occurring with a frequency of 77%, compared to the 60% found in Ceballos Domínguez' (2006) study. The sibilant is followed in frequency by [h], which occurs 23% of the time in our study and 37% in Ceballos Domínguez'. We found only five tokens with Ø in our data, so deletion was excluded from further analysis. Ceballos Domínguez also found low rates of deletion (3 %) localized to speakers with low levels of formal education and social status.

Variant	Our study	Ceballos Domínguez
[s]	77 %	60 %
[h]	23 %	37 %
Ø	0.2 %	3 %
N (total number of tokens)	1,922	3,600

Table 3. Overall distribution of /s/ variants in Veracruz Spanish.

It seems that the overall percentage of aspiration of Veracruzanos in Ciudad Juárez is lower compared to those who remain in Veracruz. This could be due to a difference in the sample used in Ceballos Dominguez' study and ours. Ceballos Domínguez had a larger group of older participants who were 40+. These participants had a significantly higher rate of [h] compared to the younger groups. In our study, 7 out of 31 (22.5 %) participants were 40 +, in her study 22 out of 36 (61 %). Another possibility could be a slight accommodation of newcomers to the speech of Ciudad Juárez, which will be explored when we analyze the groups by length of stay in Ciudad Juárez.

The distribution of the dependent variable across the linguistic and extra-linguistic factors considered in the analysis is shown on Table 4. Aspiration in onset position of the syllable occurred very infrequently (3 %), so this factor was eliminated from subsequent analysis. The data presented below only includes /s/ in coda position, both word internal and final.

Factor Groups	[h]		[s]		Total
Preceding Segment	%	N	%	N	
Vowel	27.9%	432	72.1%	1117	1549
Consonant	0%	0	100%	8	8
Following Segment					
Vowel	29%	61	71%	149	210
Consonant	29.3%	288	70.7%	696	984
Pause	22.9%	83	77.1%	280	363
Position in the Syllable					
Coda	29.2%	349	70.8%	845	1125
Final	22.9%	83	77.1%	280	432
Word Frequency					
Frequent	31.5%	166	68.5%	361	527
Not-Frequent	25.8%	266	74.2%	764	1030
Total N	1557				

Table 4. Distribution of [h] and [s] across linguistic factors and word frequency.

There is a higher rate of aspiration when there is a preceding vowel. But, this result has to be taken with caution because 99% of the tokens occurred in this context. Aspiration is more frequent before a consonant and a vowel (29.3 % and 29 %, respectively) than before a pause (22.9 %). The next factor group Position in the Syllable confirms the effect of Following Context by showing that aspiration is less frequent when it is in absolute final position, i.e. followed by a pause. Finally, a higher rate of aspiration was found in frequent words (31.5 %) compared to non-frequent ones (25.8 %).

The social factors hypothesized to influence aspiration are listed on Table 5: Gender, Level of Education, Number of Years Living in Ciudad Juárez, Age and Socio-Economic Status (SES). The factor group Education was collapsed into two groups: Higher Education, which included participants at university or high school levels and, Lower Education which included participants who have achieved elementary and/or middle school. This collapsing was done after a first analysis, which showed that the two lower levels behaved similarly vis-a-vis the two higher levels[8].

We also collapsed the factor group Age into fewer categories: Young (<30), Young adult (30s) and Adult (40+). Originally, we had categorized participants by decades (30s, 40s, etc.), but since our sample is rather small and the data was not evenly distributed across the different groups, we decided to re-group them into larger categories. We did this after a first analysis showing that participants in the collapsed categories behaved similarly[9].

Factor Groups	**[h]**		**[s]**		**Total**
Gender	**%**	**N**	**%**	**N**	
Female	9.7 %	62	90.3 %	642	711
Male	42.9 %	363	57.1 %	483	846
Education					
Univ. or High School	14.1 %	91	85.9 %	553	644
Middle School or Elementary	37.3 %	341	62.7 %	572	913
Years living in Ciudad Juárez					
3 or less	31.6 %	255	68.4 %	551	806
8 or more	23.6 %	177	76.4 %	574	751
Age Group					
Young <30	30.6 %	232	69.4 %	526	758
Young adult 30s	24.1 %	104	75.9 %	328	432
Adult >40	26.2 %	96	73.8 %	271	367
Socio-Economic Status					
Lower	31.6 %	255	68.4 %	551	806
Lower-Middle	23.6 %	177	76.4 %	574	751
Total N			**1557**		

Table 5. Distribution of [h] and [s] across extra-linguistic factors.

As expected, men have much higher rates of aspiration than women (42.9 % and 9.7 %, respectively). Speakers with lower levels of education present an increased percentage of aspiration (37.3 %) than those with higher levels (14.1 %). Regarding the factor group Years Living in Ciudad Juárez,

as predicted aspiration rates decreased as speakers remained longer in Ciudad Juárez (26.6 % vs. 31.6% for recent arrivals). The analysis of age groups shows that younger speakers have a higher rate of aspiration (30.6 %), followed by adults (26.2 %) and young adults (24.1 %). Although the differences between groups are not so marked, the behavior of groups seem to be the one found in situations of stable variation. Concerning SES, the differences were in the expected direction: L had 31 % of aspiration and LM 23.6 %.

The next analysis has two goals: first, identify which of all the factors considered were statistically significant; second, obtain a ranking of factors that can better predict the variable under study.

4.2 Statistical analysis

To analyze the influence of intra-linguistic and extra-linguistic factors on the dependent categorical variable ([s] vs. [h]), several binary logistic regression models were fitted using the glm (general linear model) function in R (R Core Team, 2017). Interactions between factors were also analyzed using the ctree (conditional tree) function (Hothorn, Hornik & Zeileis, 2006). The different models were compared against each other with the anova function (R Core Team, 2017) in order to exclude models with additional factors that do not provide a significant fit improvement.

The factors considered were Education Level (low vs High), Age Group, Gender, Length of Stay in Ciudad Juarez (short vs long), following context (consonant vs vowel), Position in Syllable (coda vs final), and Frequency (frequent vs infrequent). The step function in R identified the most important predictors as Gender, Education Level, Position in the syllable and Frequency.

Comparison of different models based on these predictors revealed that removing either Position in the Syllable or Frequency does not significantly degrade the model. Further analysis showed that the distribution of Frequency vs. Position in the Syllable is unbalanced, i.e. most frequent words with coda /s/ are *not* followed by a pause. We believe that the phenomenon under study has a phonetic / articula-

tory origin, and therefore a model that includes Position in the Syllable instead of Frequency makes more sense from a linguistic point of view.

The resulting model parameters are shown in Table 6. The table includes the model's estimate, standard error, *z*-value, and *p*-value. In these tables, positive estimates indicate that the level displayed, for instance Gender = male, has a favoring effect compared to the reference level, which would be Gender = female. A negative estimate indicates the opposite directionality.

	Estimate	**SE**	***z*-value**	***p***
(Intercept)	-1.70	0.14	-12.41	<0.001
Gender = male	1.88	0.15	12.72	<0.001
Education = higher	-1.17	0.14	-8.38	<0.001
Position = final	-0.39	0.15	-2.52	0.012

Table 6. Best fit model for /s/ aspiration.

These coefficients show that aspiration is favored by male speakers, and that higher education levels disfavor it. With regards to Position in the Syllable, the occurrence of /s/ in absolute final position disfavors aspiration.

Next, interactions in the model were explored with the help of the ctree function in R. This analysis showed an interaction between Gender and Education Level for men. This factor does not seem to play a significant role in women (Figure 6).

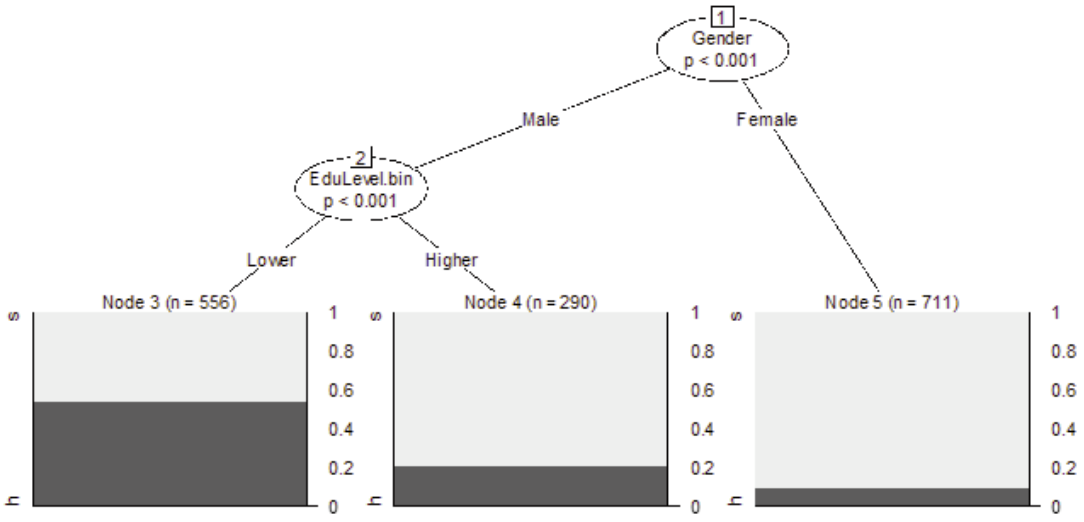

Figure 6. The conditional tree function in R showing interaction between Gender and Education.

The relationship between Gender and Education in Figure 6 shows that aspiration is more frequent in male participants with lower levels of formal education, while those with higher levels of formal education have less aspiration. On the other hand, women show low rates of aspiration regardless of their education levels. Based on this, an alternate model was fitted, including an interaction term of gender and education. This model resulted significantly better when compared to the one without the interaction term.

	Estimate	SE	z-value	p
(intercept)	-2.02	0.17	-11.74	<0.001
Gender = male	2.29	0.19	12.02	<0.001
Education = higher	-0.27	0.26	-1.06	0.29
Position = final	-0.41	0.16	-2.62	<0.01
Gender = Male + Education = Higher	-1.24	0.31	-4.05	<0.001

Table 7. Best fit model for /s/ aspiration including the interaction term 'Gender + Education'.

5. Discussion

Our results indicate that the major predictors of aspiration among Veracruzanos living in Ciudad Juárez are a combination of social (Gender & Education) and linguistic factors (Position in the Syllable). The prediction that the non-standard variant would be favored by men was confirmed by our results. Yet, the interaction between Education and Gender was an interesting finding. Male participants with lower levels of formal education prefer the use of the non-standard variant [h], while those with higher education levels prefer the standard [s] showing similar rates to women. The significantly higher rate of the standard form by women was expected and follows the sociolinguistic principles that women tend to use standard variants more than men in cases of stable variation and language change from above the level of consciousness (Labov, 2001). The fact that men behaved differently according to their education level shows the dynamic

nature of the gender category, which needs to be considered in relation to other social factors. A study on the perception of /s/ variation in Costa Rican Spanish (Chappell, 2016), showed that women and men who use nonstandard forms are perceived differently. Women were evaluated as less educated and lower class when they produced the nonstandard intervocalic [z] and gained very little socially from its production. On the other hand, men who used the nonstandard local variant [z] were rated as nice, local, confident, and masculine. Yet, those men who had higher rates of the standard variant [s] presented themselves as highly educated and high-status individuals. Given this differential social treatment in which men are regarded positively for using the nonstandard form, it becomes clearer why half of the men in our sample continued to show high rates of use of the nonstandard [h].

Contrary to our predictions, the factor Years Living in Ciudad Juárez was not selected as significant by the general linear model. Yet, the rates of aspiration show the expected pattern: people living in Ciudad Juárez for a longer time have lower rates of aspiration (23.6%) than those who have arrived recently (31.6%). Previous studies have found evidence of speech accommodation by immigrants (Pesqueira, 2004; Klee & Caravedo 2006; Rodríguez Cadena, 2006; Bernate, 2016; Klee et al. 2018) yet, there are some important differences between these studies and ours. Rodriguez Cadena's (2006) study on Cubans that immigrated to Mexico City found that age of arrival of the immigrant to the new community plays an important role with regard to the progressive cessation of the phonological rules of the subjects' native dialect. Similarly, Klee & Caravedo's (2006) study investigating *loísmo* amongst Andean migrants that moved to Lima, Peru, found that the younger generation accommodated more closely to the local dialect than the older generations. A more recent study by Klee et al. (2018) on /s/ variation in the Spanish of Andean migrant settlements in metropolitan Lima, Peru showed that the most important social predictor for accommodation to the local dialect was "generation", i.e. the rates of aspiration in the younger generations, specifically the third, more closely mirrored those

of the local community. In both of these studies, first, second and third generations showed significantly different behaviors that influenced the degree to which they converged to the local dialect. However, in our study, all participants were first generation immigrants who only differed in the length of time spent in Ciudad Juárez. So, it could be possible that our analysis of speech accommodation did not yield significant differences because the factors that have been found to be the strongest in previous studies (Age of Arrival and Generation) have remained constant in ours. Yet, even within the first generation we were able to find some evidence of (phonological) convergence to the local dialect. This shows an effort on the part of the newcomers to reduce the social gap between them and the local community. Given the discrimination suffered by newcomers, it is not surprising that there is a tendency to linguistically adapt to the new environment by adopting the characteristic [s] variant of Ciudad Juárez speech. Speaking the local language would help reduce the economic and social disadvantages attached to being a *Sureño*, while, at the same time, it would give them access to a more comfortable way of life.

In this study, we found evidence of phonological/phonetic convergence amongst first generation adult newcomers toward the speech of the newer community in Ciudad Juárez. We saw a different behavior in the use of nonstandard [h] between women and men and explained that in terms of lack of social gain amongst women who use the nonstandard variant, which prompts them to opt more for the standard variant. Male speakers' use of [h] would also be attributed to lower education level and lower class, but men are also able to access several positive social meanings, including friendliness, confidence, a local status, and masculinity, which can explain their higher use of [h].

REFERENCES

ALFARAZ, G. G. *Sound change in a regional variety of Cuban Spanish*. Michigan State University. Department of Linguistics and Languages, 2000.

AMASTAE, Jon. *The intersection of s-aspiration/deletion and spirantization in Honduran Spanish.* Language Variation and Change*,* 1989.

AMASTAE, J. *Variación y cambio en el español de Ciudad Juárez. Ciudad* Juárez*, México.* Universidad Autónoma de Ciudad Juárez, 1996.

ANGUIANO TELLEZ, Maria E. *Las politicas de control de fronteras en el norte y sur de México*. Migraciones y Fronteras Barcelona: Fundación cibod-Icaria Editorial. 2010, p. 621-624.

BERNATE, E. *La aspiración de la /s/ en las hablas femenina y masculina de los limeños en los Estados Unidos.* (Íkala. Revista de Lenguaje y Cultura) Vol. 21(3) 2016, p. 267-279.

BOERSMA, P. & WEENINK, D. Praat: doing phonetics by computer [Computer program]. Version 6.0.19, 2016.

BROS, K. *La aspiración y la pérdida de /s/ en el español de Chile como ejemplo de opacidad*. (Onomázein Revista lingüistica, filología y traducción) Vol. 28, 2013.

BYBEE, Joan. *Frequency of use and the organization of language.* Oxford University Press on Demand, 2007.

CARVALHO, A. M. *Spanish (s) Aspiration as a Prestige Marker on the Uruguayan- Brazilian Border*. Spanish in Context 3:1, 2006.

CEBALLOS DOMINGEZ, R. *Hacia un mayor consonantismo en la zona conurbada Veracruz- Boca del Río: El Caso de la (s) implosiva.* 2000.

CEDERGREN, H. *The Interplay of Social and Linguistic Factors in Panama.* Ph.D. dissertation, Cornell University, 1973.

CHAPPELL, W. *On the Social Perception of Intervocalic /s/ Voicing in Costa Rican Spanish.* Language Variation and Change, 28, 2016. p. 357–378.

COLANTONI, Laura, et al. *Second language speech.* Cambridge University Press, 2015.

CRUZ, R. *Cambios fronterizos y movimientos migratorios en la frontera norte de México*, en Telésforo Ramírez & Manuel Ángel Castillo (Coords.), El estado de la migración. México ante los recientes desafíos de la migración internacional, Conapo, México. 2012, p. 161.

ESPARZA, Sandra. *The /s/ Aspiration in Ciudad Juárez and Speech Accommodation.* The University of Texas at El Paso. 2017.

GILES, H. *Accent mobility: A model & some data.* Anthropological Linguistics, 1973.

GUTIERREZ ESKILDSEN, Rosario. *Prosodia y fonética tabasqueñas.* México: Consejo Editorial del Estado de Tabasco. 1978.

Hothorn, Torsten; Hornik, Kurt & Zeileis, Achim. *Unbiased Recursive Partitioning: A Conditional Inference Framework.* Journal of Computational and Graphical Statistics 15(3), 651-674, 2006.

Instituto Nacional de Estadística y Geografía (INEGI) Censo de Población y Vivienda 2010. http://en.www.inegi.org.mx/proyectos/ccpv/2010/.

Instituto Municipal de Investigación y Planeación (IMIP) Ciudad Juárez, Chihuahua. 2010. http://www.imip.org.mx/Beta/2010.

KLEE, Carol A. & Rocío CARAVEDO. *Andean Spanish and the Spanish of Lima: Linguistic variation and change in a contact situation.* In Clare Mar-Molinero & Miranda Steward (eds.), *Globalisation and the Spanish-speaking world*, p. 94-113. New York: Palgrave Macmillan, 2006.

KLEE, Carol A., Rogers, Brandon M. A., Caravedo, Rocío and Dietz Lindsey. *Measuring /s/ variation among younger generations in a migrant settlement in Lima, Peru.* Studies in Hispanic and Lusophone Linguistics 11 (1) 2018.

LABOV, William. *Field methods of the project on linguistic change and variation.* In Baugh J. & Sherzer J. (eds.), Language in Use: Readings on Sociolinguistics. Englewood Cliffs, N.J.: Prentice-Hall 1984, p. 28-54.

LABOV, William. *The intersection of sex and social class in the course of linguistic change.* Language variation and change 2.2, 1990: p. 205-254.

LABOV, William. *Principles of linguistic change* Volume 2: Social factors. Language in Society – Oxford – 29. 2001.

LAFFORD. B.A. *Social and linguistic constrains on language change in Cartagena, Colombia.* Paper presented at Social and linguistic constrains on language in Cartagena, Colombia. 1983.

LIPSKI, John M. *Reduction of Spanish word-final /s/ and /n/.* Canadian Journal of Linguistics. Volume 31. 1991. p.139-156.

LOPE BLANCH, Juan M. *Atlas lingüistico de México.* 1,1. Mexico. Fonética. El Colegio de México- Fondo de Cultura Económica, 1990.

LÓPEZ CHÁVEZ, Juan. *El fonema 's' en el habla de La Cruz, Sinaloa.* Nueva Revista de Filología Hispánica. Volumen 26. 1977.

MAZZARO, N. *Speaking Spanish with Style: /s/ Deletion in Argentine Spanish and Labov's Decision Tree.* Penn Working Papers in Linguistics. Volume 10.2, 2005. p. 171-190.

MAZZONI, D. (2016) Audacity 2.1.2 [Computer program].
MACLEOD, Bethany. *The Effect of Perceptual Salience on Phonetic Accommodation in Cross- Dialectal Conversation in Spanish.* Department of Linguistics. University of Toronto, Canada. 2012.
MENÉNDEZ PIDAL, Ramón. *Sevilla frente a Madrid*, en Miscelánea homenaje a André Martinent. *Estructuralismo e historia.* Ed. Diego Catalán. Biblioteca Filológica. Universidad de la Laguna, Canarias. t. 3 1958 [1962]. p. 99-165.
MESTRIES BENQUET and PÉREZ MONTEROSAS. *El estudio de los flujos migratorios emergentes hacia y desde el norte: el caso de Veracruz 1995-2012.* 20 años de la Encuesta sobre Migración en la Frontera Norte de México. México, D.F.: Consejo Nacional de Población. 2014. p. 159.
MILROY, L. *Language and Social Networks.* Oxford: Blackwell. 1987.
MILROY, L., & M. Gordon. *Sociolinguistics: Method and analysis.* 2003.
MORENO-FERNÁNDEZ, Francisco. *Internal factors conditioning variation in Spanish phonology.* The handbook of Hispanic sociolinguistics 2011, p. 54-71.
Moreno de Alba, José. *La pronunciación del español en México.* Mexico City: Colegio de México, Centro de Estudios Lingüísticos y Literarios, 1994, p. 130-140.
—. *El Español en América*. Mexico, MX; Fondo de Cultura Económica, 1988, p. 232.
O'ROURKE, E. & POTOWSKI, K. *Phonetic accommodation in a situation of Spanish dialect contact: Coda /s/ and /r/ in Chicago.* Studies in Hispanic and Lusophone Linguistics, 2016.
OTHEGUY, Ricardo and Ana Celia ZENTELLA. *Apuntes preliminares sobre el contacto lingüístico y dialectal en el uso pronominal del español en Nueva York.* Spanish in contact: Educational, social and linguistic inquiries, ed. by Richard Cameron and Kim Potowski, Amsterdam: John Benjamins. 2007, p. 275–96.
PENNY, R. *Variation and Change in Spanish*. Cambridge: CUP. 2000.
PESQUEIRA, Dinorah. *Adquisición de formas léxicas en situaciones de contacto dialectal: argentinos en la Ciudad de México,* 2004. http://lef.colmex.mx/Sociolinguistica/Cambio%20y%20variacion/Sound%20change%20in%20di alect%20contact%20situacion.pdf Accessed 18 September, 2017.
POPLACK, S. *Deletion and Disambiguation in Puerto Rican Spanish.* Language Vol.56(2) 1980 R Core Team. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/, 2017.

Real Academia Española. Banco de Datos: Corpus del Espanol Actual. URL http://www.rae.es. 2012.

Rodriguez Cadena, Yolanda. *Variación y cambio en la comunidad de inmigrantes cubanos en la ciudad de México: Las líquida en coda silábica.* El Colegio de México, Centro de Estudios Lingüísticos y Literarios, 2006, p. 87.

Samper Padilla, J.A. *La variación fonológica: los estudios hispánicos sobre -/s/ implosiva.* 2001. http://cvc.cervantes.es/obref/congresos/valladolid/ponencias/unidad_diversidad_del_espanol/1_la_normahispanica/samper_j.htm. Accessed 11 October 2017.

Sanou de los Ríos, R. *Variantes de /s/ en San Juan.* Universidad Nacional de San Juan, Facultad de Filosofía, Humanidades y Artes. San Juan. 1989.

Terrell, T. *Functional constraints on the deletion of word-final /s/ in Cuban Spanish.* Berkeley Linguistic Society. 1975.

—. (1978a) *La aspiración y elisión de /s/ en el espanol porteno.* Anuario de Letras 16:41-66.

—. (1978b) *Aspiración y Elisión de /s/ en el Habla de Caracas, Venezuela.* Paper presented at the Fifth Conference of Asociación de Lingüística y Filología de América Latina (ALFAL), Caracas, Venezuela.

—. (1978c) *Sobre la aspiración y elisión de /s/ implosiva y final en el español de Puerto Rico.* Nueva Revista de Filología Hispánica 27:24-38.

Toyes & Vargas. *El estudio de los flujos migratorios emergentes hacia y desde el norte: el caso de Veracruz 1995-2012.* 20 años de la Encuesta sobre Migración en la Frontera Norte de México. México, D.F.: Consejo Nacional de Población. 2014. p. 159.

Vila, Pablo. *Crossing Borders,* Reinforcing Borders: Social Categories, Metaphors, and Narrative Identities on the U.S. - Mexico Frontier. Austin: University of Texas Press, 2000.

Weinberg, Maria Fontanella de. *Un Aspecto Sociolingüístico del Español Bonaerense: la -S en Bahía Blanca.* Bahía Blanca: Cuadernos de Lingüística. 1974.

Williamson, Rodney. *El habla de Tabasco. Estudio lingüístico.* Nueva Revista de Filología Hispánica. El Colegio de México. Volumen 35. 1986, p. 272.

NOTAS

[1] **Sandra Esparza**, M.A. University of Texas at El Paso, E-mail: sesparza6@miners.utep.edu

Corresponding author: Natalia Mazzaro, Ph.D. University of Texas at El Paso, Email: nmazzaro@utep.edu

[2] We are aware that in some dialects, such as Costa Rican Spanish, intervocalic [z] is considered non-standard and those who use it are perceived as education and low class (Chappell, 2016). The literature consulted (Ceballos Dominguez, 2000; Carvalho, 2006) does not cite awareness and/or stigma towards [z] in Veracruz Spanish.

[3] For simplicity's sake, we will use the term 'Veracruzanos' to refer to the people from Veracruz.

[4] Similar to the demonym used for Veracruzanos, we will use the term 'Juarenses' to refer to the people from Ciudad Juárez.

[5] Colloquial pseudonym referring to the people from Veracruz that immigrated to Ciudad Juárez. The word comes from the derogatory pseudonym "*jarocho*" that is the term given to the people from Veracruz plus the first sound ([x]) in the word Juárez.

[6] Linguistic conversion refers to the idea that speakers will become more similar to their interlocutors in order to decrease social distance (Giles, 1973). This idea will be further developed in the discussion section.

[7] For a more complete discussion of the linguistic and social factors analyzed the reader is referred to Esparza (2017)

[8] Rates of aspiration for original (uncollapsed) groups were the following: Elementary: 47 %, Middle: 31 %, High school: 13% and University: 15 %.

[9] Rates of aspiration for original (uncollapsed) groups were the following: 20s: 30 %, 30s: 24 %, 40s: 27 %, 50s: 23% and 60s: 27%.