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THE MADRILEÑO EJKE: A STUDY OF THE PERCEPTION AND PRODUCTION OF VELARIZED /S/ IN MADRID

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by

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The Madrileño *ejke*: A study of the perception and production of velarized /s/ in Madrid

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Aspiration of coda /s/ has been widely studied throughout the Spanish-speaking world, although within the Madrid dialect there have only been two studies quantifying /s/ realization (Momcilovic, 2005; Turnham & Lafford, 1995). In the first, Turnham and Lafford (1995) examine the extralinguistic factors that condition /s/ realization, considering the nonstandard variants of velarized and elided /s/ in their analysis. In contrast, Momcilovic (2005) does not include the velarized /s/ as a specific category in her study, but rather quantifies rates of aspirated, elided and assimilated /s/. In this way, the actual variants present and their distribution within the Spanish of Madrid has not been clearly established.

The velarized /s/, of particular interest in this dissertation, is distinct from most cases of /s/ weakening because it does not fit into the typological weaking paradigm of [s] > [h] > [ø], and furthermore may not be a case of lenition at all (Henriksen & Harper, 2016). Given the curious /s/ variant present in the Madrid dialect, the current investigation sought to learn more of the social meaning and perception of the velarized /s/, utilizing the matched guise language attitudes technique to do so. It is found that the velarized /s/ is a marker of Madrileño identity, and that it is mainly associated with negative connotations, most

strongly observed among the Madrileño participants. This dissertation contributes the first language attitudes study conducted on /s/ in Madrid, revealing both the social meaning attached to velarized /s/ and the importance of the speakers' social characteristics in their perception of this variant.

Secondly, a production study was conducted in order to offer a clearer picture of the coda /s/ variants present in the Madrid dialect and their respective distribution. The significant factors found to condition /s/ realization include syllabic position, reading time, reading order and the number of Madrileño grandparents a speaker has. Most importantly here, it is seen that the aspirated variant actually appears more frequently than the velarized /s/. Together these studies contribute a greater understanding of velarized /s/, filling a lacuna in what was previously known of coda /s/ in the Madrid dialect.

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Chapter 1: Introduction

Aspiration of coda /s/ is among the most studied variables in Spanish. This phenomenon affects much of the Spanish-speaking world and has been cited to occur in the south of Spain, the Canary Islands, the Caribbean and in the coastal regions of South America (File-Muriel & Brown, 2011; Rodríguez-Pineda, 1994; Schwegler & Kempff, 2007). Madrid is generally not considered an aspirating dialect, and thus has been overlooked in the literature. To date, there have only been two studies conducted regarding /s/ in Madrid, (Momcilovic, 2005; Turnham & Lafford, 1995), the first finding that a total of 33.9% of all cases of /s/ in conversation are realized as nonstandard variants, while the other finds 37.7% of /s/ in conversation to be nonstandard. Although nonstandard /s/ realization is not present in the majority of cases, it clearly has a strong enough presence for the /s/ variable to warrant investigation.

The careful reader will notice that the term "nonstandard /s/ realization" was used to reference the /s/ variable in Madrid rather than "aspiration". This is due to the fact that while the phenomenon of /s/ aspiration follows the typological pattern of /s/ > [h] > [ø] in almost all dialects (Rodríguez-Pineda, 1994; Terrell, 1981), in Madrid there is another variant present, that of the velarized /s/. While aspiration of /s/ is considered a trajectory of lenition, in which /s/ is weakened to the aspirated variant and then again weakened so much that it suffers deletion, it is unclear whether the velarized /s/ can be considered a case of lenition. Rather, its strong salient frication seems almost fortified. Indeed, Henriksen and Harper (2016) find that in Toledo, a city some 70 kilometers outside of Madrid where the velarized /s/ is also present, the duration of /s/ is actually longer in the velarized variant than standard /s/ variant. This is a significant finding because a shorter duration is

considered a sign of lenition, as is the case with aspirated and elided /s/ (Erker, 2010, 2012; File-Muriel & Brown, 2011; Henriksen & Harper, 2016; Rodríguez-Pineda, 1994).

Although the typological sound change of /s/ > [h] > [ø] is the general trajectory, it has been found that social factors can break with this path. One such example is found in Rivera, Uruguay, in which aspirated /s/ has been introduced into the dialect where it once was elided as a matter of prestige, emulating the speakers from the capital city (Carvalho, 2006b). The question arises then as to what the social factors might be that led to a break in the tendency toward /s/ lenition in the case of /s/ velarization in the Madrid dialect. Supporting the case that velarized /s/ carries strong social meaning is the fact that one can find examples of authors purposefully representing the nonstandard sound orthographically in computer-mediated communication (CMC). Although it is seemingly counterintuitive to examine *written* language in studying a *phonetic* variable, consider the following examples:

1) Es que > ej que
   *"**ej** que, lo flipo tío"*
   "**I mean**, I can't believe it, dude"
   http://picandopuertas.blogspot.com/2010/03/ej-que-lo-flipo-tio.html

2) España > Egpaña
   *"En busca de sueños que en **EGpaña** no hay"*
   "In search of dreams that in **Spain** don't exist"
   http://elmaldeberrokal.blogspot.com/2010/12/en-busca-de-suenos-que-en-egpana-no-hay.html

Clearly, <ej que> and <EGpaña> are not simply orthographic errors, but rather, quite intentional and performative. It is the social meaning and identities associated with the velarized /s/, invoked orthographically in examples (1) and (2), which are the subject

of the first study presented in this work, an investigation of language attitudes toward velarized Madrileño /s/.

1.1 STUDY ONE: PERCEPTION

In order to learn more about the social meaning that the velarized /s/ holds in the Madrid dialect, a language attitudes perception study was conducted by means of a matched guise survey. A total of 386 respondents representative of all regions of Spain completed the survey, allowing insight into how velarized /s/ is perceived in various autonomous communities of Spain. Participants were asked to make character judgments regarding the speakers they listened to, as well as postulate where they thought the speaker was from, whether they would like the speaker as a friend, colleague and employee, whether they liked the recording, whether they thought they would get along with the speaker and any particular aspects of the speaker's manner of speech that caught their attention and influenced their perception. The data shows that velarized /s/ is indeed associated with Madrid, although this finding is dependent upon the region from which the respondent originates. Furthermore, it is found that velarized /s/ negatively affects judgments of virtually all characteristics tested, with the exception of a few traits that only show a negative effect in female speakers.

In addition to the language attitudes presented toward the *speakers* in a perception study, equally crucial is the information gathered about the respondents themselves. Just as sociolinguistic factors of speakers can provide insight into the variables used in their speech, the social information about the respondents in perception tests (e.g. age, gender, place of origin) can help us to understand the social meaning of a variable according to *whom*. This knowledge also becomes important when considering the effects of audience

design (Bell, 1984, 2001). We know from Bell that speakers change their speech according to their audience, and as Garrett (2010) explains, the known language attitudes of others influence the choices that speakers make in language use. For this reason, it is necessary to know what the speakers know, that is, how a particular interlocutor will respond to the speaker's language choice. In other words, in terms of Bourdieu's (1977) theory of practice and the *symbolic capital* language carries (Hanks, 2005), this extra information on the respondents gives us insight into the fields in which a variant holds capital and those in which it does not. For this reason, respondents were requested to provide demographic information about themselves once they had completed the survey. This information was then used for an analysis of the language attitudes data through a lens focused on the respondents. Here we see that respondent gender significantly affects the judgments made, as does place of origin. Speakers from certain autonomous communities view velarized /s/ speakers more positively than others, but those that most negatively judge the velarized /s/ speakers are in fact Madrileños themselves.

1.2. STUDY TWO: PRODUCTION

Complementing the perception study, a production study was also conducted. For that purpose, 5,622 tokens of coda /s/ (including those resyllabified into syllable-initial position) were analyzed in order to understand the variant distribution as well as gain an understanding of the linguistic and extralinguistic factors that condition /s/ realization. The former is motivated by the fact that the two previous studies on /s/ in Madrid did not consider all the variants present in Madrid; for instance, Turnham and Lafford (1995) categorize the variants of /s/ as either standard, velarized or elided. They do not consider the aspirated variant, explaining that the velarized /s/ is the s-backing variant present in the

Madrileño phonemic inventory. Momcilovic (2005), on the other hand, categorizes the variants of /s/ as either standard, aspirated, elided or assimilated. In this case, the velarized /s/ falls under varying categories depending on the segment that follows it. Thus, this study contributes the first analysis of the Madrid dialect in which velarized /s/ is considered as a singular category while still including the aspirated variant in the analysis as well. In this way, a clearer understanding of the distribution of the variants of /s/ is offered here.

The data analyzed in this study comes from two reading tasks performed by 50 native Madrileño participants. Each reading task consisted of reading a list of words followed by reading a list of colloquial phrases. Among the phrases were included some considered to be particularly *madrileño*, with the intention of encouraging speakers to perform being Madrileño. Traditionally, the goal of sociolinguistic studies is to guide the speaker through conversation in such a way that s/he will produce *unmonitored* examples of vernacular[1] speech (Labov, 1984). The vernacular, or least formal style, is then often compared to samples of speech from more formal styles, such as reading passages and wordlists, assuming that the least formal variants appear only when least attention is paid to speech. Recent studies, however, suggest that perhaps the *vernacular* as it is understood in sociolinguistic interviews is not the only, and perhaps not always the best, way of gaining an understanding of the social meaning of particular variables (Bucholtz, 2009; Guy & Cutler, 2011; Schilling-Estes, 1998). Rather, it is sometimes in the highly monitored performance of a particular variable that one can find insight into the identities portrayed by an informal variant. In this way, it was postulated that performing *madrileño-ness* in particular phrases might prime the use of the characteristic velarized /s/ (i.e., "el ejque madrileño").

[1] Poplack defines the vernacular as speech that is "taken to reflect the most systematic form of the language acquired by the speaker, prior to any subsequent efforts at (hyper) correction or style-shifting" (1993: 252).

In analyzing the /s/ variable in both the wordlist and phrases reading tasks, a segmental approach was taken. The segmental variants considered in the study were standard /s/, aspirated /s/, elided /s/ and velarized /s. This analysis found that the significant factors conditioning the realization of /s/ include reading time, reading order, syllabic position and number of Madrileño grandparents.

1.3 Overview of the dissertation

Following this brief introduction, Chapter 2 offers a review of what is known of /s/ in Spanish. The linguistic and extralinguistic factors found to condition /s/ throughout the Spanish-speaking world are discussed as well as those found to be significant specifically in and around the Madrid region. This discussion centers around production studies, as there have been minimal studies of attitudes towards /s/ realization in Spanish. Given this lacuna, a brief summary of the results of the pilot perception study guiding this current work is offered. Lastly, the findings of a second pilot study in which an analysis of the contexts in which nonstandard /s/ is orthographically represented in CMC sources is presented. These findings are included as they were central in the crafting of the research questions and hypotheses guiding the two studies in this dissertation.

The first of these studies, the perception study, is presented in Chapter 3. The research questions, hypotheses and methodology are first discussed and then the results in general are presented. Following a summary of the general results, an analysis in which speaker gender is considered is offered. Here it is seen that not only do certain findings go overlooked when gender is not taken into account, but other results are in fact quite the opposite when gender is considered; for instance, while the general results show that velarized /s/ ascribes a colder attribute to a speaker, it is later found that this is only true of

the women, i.e., velarized /s/ actually helps male speakers to be viewed as warmer and more loving. Next, the data is analyzed through the lens of respondent information, considering the effects of respondent gender as well as place of origin. Once again, the general results found can be quite different when taking respondent information into account. Understanding how /s/ is perceived by *whom* gives much greater insight into the social meaning of the variable.

Following the perception study, the production study is presented in Chapter 4. First the research questions, hypotheses and methodology are detailed, followed by the results. Within the results section, first a more qualitative approach is taken in which the distribution of the data is reported. Here the frequencies of the different variants present in the data are offered, as well as the distribution of said variants according to social factors such as gender, age and education and certain linguistic factors such as phonological environment. Next, the results of the statistical analysis are presented. Finally, a discussion of the results follows in which the findings are compared to those of previous studies in and around the Madrid region.

The final chapter of the dissertation, Chapter 5, reviews the main findings and contributions of both the perception and production studies. In addition, general conclusions are offered along with directions for ongoing and future research.

Chapter 2: /s/ in Spanish

Aspiration of coda /s/ is a phenomenon that has been extremely well-studied in Spanish. In fact, File-Muriel and Brown (2011) claim that it is "perhaps the most studied phenomenon in Spanish" (p. 223). It occurs throughout the Spanish-speaking world, specifically in the *Tierras Bajas* of Latin America, that is, the coastal regions, as well as in the Caribbean Islands and parts of Spain (File-Muriel & Brown, 2011; Rodríguez-Pineda, 1994; Schwegler & Kempff, 2007; among others). Among peninsular Spanish dialects, aspiration tends to be associated with southern Spain and the Canary Islands, and although it does occur in other peninsular dialects, it is often overlooked. The degree to which aspiration has evolved, whether it is a case of lenition or complete elision, varies among dialects, as does the linguistic contexts in which aspiration occurs. However, there is general consensus that regardless of the distribution of aspiration, all dialects follow the typological trajectory of sound change, /s/ first being reduced to an aspirated variant [h] and then later elided completely [ø] (Crowley & Bowern, 2010; Rodríguez-Pineda, 1994; Terrell, 1981). As we will see below in section 2.2.1, there have been studies that demonstrate that social factors can play a powerful role in reversing these typological tendencies. This finding is significant and has important implications for the Madrid dialect, where it is not clear if the salient velarized /s/ can be considered a case of lenition; rather than weakening to an aspirated [h], it appears almost strengthened with the velar [x] or postvelar [X].

In this chapter, a review of studies of /s/ in Spanish is provided. In section 2.1, the linguistic factors demonstrated to condition /s/ in Spanish are presented, first throughout the Spanish-speaking world, and then specifically those found in and around the Madrid region. Next, in section 2.2, the extralinguistic factors shown to affect /s/ realization in Spanish are discussed, once again first throughout the Spanish-speaking world and then

specifically in the Madrid area. Following the background presented on linguistic and extralinguistic factors found to affect /s/ in Spanish, section 2.3 discusses the two main approaches to analysis in investigating /s/, segmental and subsegmental. In section 2.4, different approaches to studying perception and language attitudes are reviewed, and the findings of previous perception studies of /s/ in Spanish are presented. Lastly, in section 2.5 the results of a pilot study of velarized Madrileño /s/, as orthographically represented in computer-mediated communication are offered. A summary follows in section 2.6.

2.1 LINGUISTIC FACTORS CONDITIONING /S/ REALIZATION IN SPANISH

According to Rodríguez-Pineda, "more than half of all native speakers of Spanish tend to aspirate or delete syllable- and word-final laminal /s/" (1994:82). It is no wonder, then, that the /s/ variable has been so thoroughly studied. Despite being a phenomenon common to so many dialects of Spanish— a phonological process which seems inherent to Spanish— the course of this sound change and the various factors influencing such a change are not uniform throughout the Spanish-speaking world, and in fact, vary quite a bit. Here the different linguistic factors conditioning /s/ realization will be discussed, beginning first with the Spanish-speaking world in general, and then specifically in and around the Madrid area.

2.1.1 Aspiration throughout the Spanish-speaking world

As aforementioned, /s/ is considered to be the most researched phonological variable in Spanish (Erker, 2010; File-Muriel & Brown, 2011; Henriksen & Harper, 2016; Rodríguez-Pineda, 1994; Silva-Corvalán, 1989) and in being so, many different potentially contributing variables have been explored. These variables and their effect on /s/ realization

vary among different dialects, but as a whole have included the following factors: previous segment, following segment, syllable position, word position, stress, morphological role, additional plural information, parallelism, speech rate, word length and lexical frequency.

One of the factors most frequently observed to influence /s/ is the phonological environment. While this generally refers to the following segment, some studies have observed the previous segment to play a significant role in /s/ realization as well; for instance, Erker (2012) finds the preceding vowel to be a conditioning factor of /s/ realization in Spanish in New York. Similarly, in their study of Caleño Spanish, File-Muriel and Brown (2011) note that it is specifically a preceding high vowel that favors weakening of /s/. They discover that the opposite is true, however, in the environment of following segment, observing that when a high vowel follows /s/, there is a strong tendency towards retention. They see the same effect in the context of a following pause, said context again favoring retention. A following pause has also been cited to favor retention in Dominican Spanish, both on the island (Alba, 2000) and in New York (Erker, 2010), as well as in Uruguayan Spanish (Carvalho, 2006b). Brown and Torres Cacoullos (2002), however, claim the reverse to be true in Northern Mexican Spanish. In Puerto Rican Spanish, Poplack (1980) too finds that a following pause favors deletion, as does Lynch (2009) in Miami-Cuban Spanish and Cedergren (1978) in Panameño Spanish.

With respect to consonants, Calero Fernández (1990) affirms that in Toledo, aspiration occurs most frequently before a consonant, Lynch (2009) finding the same to be true of Miami-Cuban Spanish. Carvalho (2006b) shows that it is specifically a following segment of a noncoronal consonant that conditions aspiration in Rivera. File-Muriel (2007) does not find this to be the case for /s/ in Barranquilla, as place of articulation does not significantly affect /s/ realization. He does, however, discover that fricatives favor lenition more than do stops. Bullock, Toribio and Amengual (2014) also demonstrate that

(voiceless) stops favor /s/ retention, as does a following nasal segment, in their study of Dominican Spanish. Brown and Torres Cacoullous (2002) claim that it is liquids that most favor /s/ reduction in Northern Mexico while voiceless stops most strongly favor retention. Other studies that have found the following segment to be a significant factor in /s/ realization include Brown and Brown (2012) in Cali Spanish, Erker (2012) in the Spanish of New York and Lipski (1985) in Central American Spanish, among others. While the role a particular segment plays and its effect on the /s/ variable varies among dialects, as demonstrated above, clearly the phonological environment has been an important predictor for /s/ realization.

The position of /s/, both within the syllable as well as the word, has been shown to be a significant factor in /s/ realization throughout the Spanish-speaking world as well, although like the following segment, the effect has varied; for instance, while some researchers have found that more weakening of /s/ occurs word-finally rather than word-medially (File-Muriel & Brown, 2011; Lipski, 1985), others have observed just the opposite, that /s/ is more likely to aspirate word-medially rather than word-finally (Alba, 2000). Although less common, lenition of /s/ is also realized syllable-initially (File-Muriel & Brown, 2011; Schwegler & Kempff, 2007; Terrell, 1981). Indeed, Brown and Brown (2012) find this to be the case in Caleño Spanish as do Brown and Torres Cacoullous (2002) in Norteño Spanish and Lipski (1985) in the Spanish of El Salvador and Nicaragua.

Another important variable for /s/ realization is stress. Many researchers have found that /s/ is more likely to lenite in an unstressed environment (Brown & Brown, 2012; Brown & Torres Cacoullous, 2002; File-Muriel & Brown, 2011; Lipski 1985; among others). Calero Fernández (1990) asserts that in Toledo, it is specifically in the pre-tonic position that /s/ is weakened. Carvalho (2006b) discovers an important difference among the nonstandard /s/ variants in Rivera, finding that although in most contexts, aspiration is

favored over deletion, it is the post-tonic position that favors deletion over aspiration. Poplack (1980) also demonstrates that the post-tonic syllable favors deletion in Puerto Rico. Other researchers who have found stress to be a conditioning factor in their work on /s/ include Erker (2012) in New York Spanish, Alba (2000) in Dominican Spanish and Lynch (2009) in Miami Cuban Spanish.

Next, the influence of the morphological role of /s/ and syntactically relevant information, such as the plural marker *–s* or the second person verbal ending *–s*, have been the subject of debate in /s/ variation studies, particularly in the Caribbean dialects (Cameron, 1996; Hochberg, 1986; Poplack, 1980, 1981; Schwegler & Kempff, 2007). Hochberg (1986) claims that –s deletion of the second person verbal morpheme is more likely to occur in Puerto Rican Spanish if the subject pronoun is overtly realized, calling this the Functional Hypothesis, or functional compensation; that is, due to the deletion of /s/, the pronoun becomes necessary. Cameron (1996), however, shows that in his study of Puerto Rican Spanish, functional compensation does not hold. In the same way, Poplack (1981) suggests that in Puerto Rican Spanish the plural morpheme is in just as much danger of being elided as a lexical /s/. She does, however, also affirm that the presence of additional plural information makes elision more likely (as in the case of *el* < *lo[ø]* versus *la* < *la[ø]*). Hundley (1987) corroborates these findings as well in coastal Peruvian Spanish. Other researchers that have found morphological role to have a significant influence on /s/ include Erker (2012) in the Spanish of New York and Lynch (2009) in Miami Cuban Spanish. In the latter study, Lynch claims that it is a lexical /s/ which is most likely to demonstrate retention, while verbal /s/ is the least likely to be retained.

Although Poplack (1981) finds that the plural morpheme is no exception to the lenition rule, she does show that strings of plural markers affect realization, explaining that "one marker leads to one more, but zeros lead to zeros" (1980:378). In her study of Spanish

on the Uruguayan-Brazilian border, Carvalho (2006a) corroborates the parallelism effect (Scherre, 2001; Scherre & Naro, 1991), discovering that speakers tend to continue to mark a plural within the noun phrase if the first two words have been marked, for instance *la**s** casa**s** nueva**s***. This finding contrasts with Seklaoui, who invokes the principal of economy, claiming that "By deleting /s/, speakers avoid indicating more information than is necessary in signaling number" (1988: 283). In the same study, Carvalho (2006a) also explains that word length plays a significant role in variable realization, demonstrating that disyllabic words favor deletion while monosyllabic words favor retention. File-Muriel (2007) too finds that in the Spanish of Barranquilla, longer words favor lenition.

Two final linguistic factors found to condition the /s/ variable include speaking rate and lexical frequency. File-Muriel and Brown (2011) show that as the speaking rate increases, /s/ weakens in Caleño Spanish. In particular, they explain that duration and center of gravity of /s/ decrease while voicing increases. Erker (2012) also observes speech rate to have a significant effect on /s/ realization in New York. File-Muriel and Brown (2011) affirm that lexical frequency is also a significant factor in /s/ realization, although it only significantly influences the duration of /s/, but not center of gravity or voicing. Brown and Torres Cacoullous (2002), Erker (2012) and File-Muriel (2007) also find lexical frequency to condition lenition in Northern Mexico, New York and Barranquilla, respectively.

2.1.2 Nonstandard /s/ in and around the Madrid area

The Madrid dialect of Spanish, of interest here, is included in what is referred to as Castilian Spanish (Rodríguez-Pineda, 1994; Hochberg, 1986). When writing specifically of /s/ in Castilian, Rodríguez-Pineda explains that "speakers of Castilian use an apicoalveolar

articulation, with aspiration occurring in final position in a very small part of the southernmost region." (1994: 87). Perhaps it is because Madrid is slightly north of the "southernmost region" to which Rodríguez-Pineda referred, or perhaps it is because Castilian aspiration occurs in "a very small part" of the Spanish-speaking world, Madrid is not generally thought of as an aspirating dialect and the region has thus been overlooked in studies of /s/ variation.

To the best of my knowledge, there have only been two studies of coda /s/ variation in Madrid, those of Momcilovic (2005) and Turnham and Lafford (1995). The sole linguistic factor Momcilovic (2005) considers in her study is that of following segment. In investigating this factor, Momcilovic finds that the three contexts which least favor /s/ retention are _#C, _$C and _##, in that order. She discovers that while all variants of nonstandard /s/, aspirated, assimilated and deleted, appear most frequently at the end of a word before a following consonant, she notes some variation in the other two contexts disfavoring standard /s/. She establishes that after a context of _#C, assimilated /s/ also frequently appears in the context of _$C, but never once appears before a pause. Aspirated and elided /s/, in contrast, appear more frequently before a pause than they do at the end of a syllable before a consonant, although this effect is more notable with the deleted variant. In fact, in the context of word-finally before a pause, the elided /s/ appears nearly twice as often as an aspirated /s/.

As can be inferred from the results above, Momcilovic (2005) categorized the different variants of /s/ as either standard, aspirated, assimilated or deleted. The velarized /s/, which is the main focus of the current study, was included in the group of "assimilation" when it appeared before a velar consonant; however, the velarized variant also appeared in other contexts, and when this occurred, Momcilovic categorized it as "aspiration". Furthermore, other instances of assimilation, for instance /s/ > [z]/_C[+ voiced], were also

included in the assimilation category along with the pre-velar-consonant velarized /s/. In this way, both the assimilated /s/ and aspirated /s/ categories of Momcilovic's study contain more than one variant and thus one cannot know the degree to which those contexts explained above favor a particular variant. Momcilovic does comment at the end of her dissertation that an area of future research would be the "very strident velar or uvular pronunciations of /s/ followed by a velar consonant… a pronunciation feature by which young speakers in Madrid are readily recognized" (2005:149). Motivating the focus of the present study on the velarized variant is the fact that, as Momcilovic notes, Madrileño speakers are "readily recognized" for its pronunciation.

The second study of coda /s/ variation in Madrid, Turnham and Lafford (1995), aims directly at investigating the velarized variant; however, Turnham and Lafford do not consider a single linguistic factor in their analysis. Whereas Momcilovic (2005) investigated various following segments and their effect on /s/, because the velarized variant has been explained as occurring before a homorganic consonant (Lipski, 1986), Turnham and Lafford (1995) quantify /s/ exclusively in coda position, and only before /k/. Unlike Momcilovic (2005), Turnham and Lafford (1995) include the velarized /s/ variant in their classification of /s/, although they do not allow for an aspirated variant in their categories, explaining that velarized /s/ is the s-backing variant available in the Madrileño phonetic inventory.

Because so little is known regarding the linguistic variables that may condition /s/ in Madrid Spanish, the findings of two studies of /s/ in Manchego Spanish will be discussed here. The reason for this is that Madrid shares both most of its borders and the velarized /s/ variant with Castile-La Mancha. In their study of the Spanish of Toledo, a city in the Castile-La Mancha region some 70 kilometers outside of Spain, Henriksen and Harper (2016) discover that when examining the clusters /sp/, /st/ and /sk/, the velarized variant

appears before /k/, whereas an aspirated or elided variant is more likely to occur before /p/. They observe that the cluster of /st/ strongly favors /s/ retention. They also find stress and word position to be significant factors in the realization of /s/. In the former, it is the unstressed syllables that trend toward aspiration/deletion or velarization, and in the latter, a word-final position, rather than medial, that favors aspiration/deletion. Other results presented by Henriksen and Harper include that aspirated/deleted and velarized /s/ show more voicing and a lower center of gravity than standard /s/, both signs of lenition; however, they also find that unlike the aspirated/deleted /s/, the duration of a velarized /s/ is longer than that of standard /s/, leading to a question of whether the velarized variant is in fact a case of lenition.

Sánchez-Muñoz (2004) conducted a study on what she calls Southwestern Central Castilian Spanish, without specifying exactly from where the six speakers of her experimental study originated. Like Momcilovic (2005), Sánchez-Muñoz (2004) considered standard /s/, aspirated /s/, elided /s/ and assimilated /s/ in her study. She chose three function words, *los*, *mis* and *estos*, and created sentences in which they were used in different contexts, which she then asked six speakers to read using an "informal pronunciation". Sánchez-Muñoz found that standard /s/ occurred more often before a voiced segment than before a voiceless one, and that the aspirated variant occurs most before a vowel. Furthermore, like Henriksen and Harper (2016), Sánchez- Muñoz (2004) discovered that standard /s/ occurs frequently before an alveolar segment, the aspirated variant appears more before bilabials and that the velarized (*assimilated*) /s/ only occurred before /k/. As far as position, Sánchez-Muñoz notes that [s] is most likely to be used in final position, and [h] is disfavored in utterance-final position. In contrast, she affirms that deletion does occur a fair amount utterance-finally, although it occurs even more frequently in medial positions. These findings contrast those of Calero Fernández (1990), who also

studied /s/ in Toledo, in which /s/ is observed to be deleted more than four times as frequently in word-final position rather than medial.

In summary, the two studies conducted on the Madrid dialect established that there are various realizations of nonstandard /s/, including aspirated, elided and velarized, although neither of the studies conceptualized them in this fashion. The only information available regarding the linguistic factors conditioning /s/ realization is regarding the following segment, demonstrating that nonstandard /s/ is most likely to appear before a consonant or pause, although whether it appears before the latter depends on the particular variant. From the studies on Manchego Spanish near the Madrid region, we know that possible linguistic factors that may influence /s/ realization in Madrid include stress and word position. In the following section, the extralinguistic factors known to affect /s/ in Spanish will be discussed.

2.2 EXTRALINGUISTIC FACTORS CONDITIONING /S/ REALIZATION IN SPANISH

Although aspiration and elision are generally considered representative of non-standard and non-prestigious dialects, the degree to which aspiration is accepted as the norm varies among dialects. While File-Muriel and Brown explain that "Variation in s-realization is generally a marker of social class, with upper-class and more-educated speakers tending toward less weakening, whereas lower-socioeconomic class and less-educated speakers favor more lention" (2011: 224), this is not the case in all dialects. Rodríguez-Pineda (1994), for example, notes that in the Canary Islands aspiration is not stigmatized. Similarly, in his study of Dominican Spanish, Alba (2000) demonstrates that while television newscasters use standard /s/ a great deal, other important figures of equal or higher social status, such as politicians, engineers and economists, frequently employ the

aspirated variant. Because of this, Alba claims that "ese fenómeno [aspiration] es un rasgo distintivo de la fisonomía de lo que suele llamarse la *norma lingüística culta* dominicana" (2000: 48). In the Spanish of Rivera in Uruguay, Carvalho (2000b) suggests that not only is aspiration not stigmatized, but it is actually considered prestigious. Similarly, Sayahi (2005) claims that for native Spanish speakers in Morocco, deletion is in fact viewed positively because it is associated with speaking like Andalusians.

As can be appreciated by the examples given above, aspiration is not inherently stigmatized in all dialects, and although the social factors outlined by File-Muriel and Brown (2011) indeed frequently condition factors of /s/ throughout various dialects, this is not always the case. In addition to social class, other significant extralinguistic factors found to affect /s/ include attention paid to speech, or formality, gender and age. These factors and their influence on aspiration throughout the Spanish-speaking world will first be reviewed in section 2.2.1 followed by those specifically in and around the Madrid region in section 2.2.2.

2.2.1 /s/ realization throughout the Spanish-speaking world

One of the most well-known sociolinguistic studies is Labov's classic study of /r/ in New York department stores (1966, 1972). One of the findings of this study is that attention paid to speech affects variable realization: The more attention paid to speech (in the case of Labov's study, emphatic speech), the more standard a variant tends to be. This premise is no exception in the many studies of /s/ variation in Spanish. It has been found time and time again that standard /s/ appears the most in reading tasks while nonstandard variants are used more frequently in conversation. This has been confirmed to be the case, for instance, in the Spanish of Rivera (Carvalho, 2006a, 2006b) and Cartagena (Lafford, 1986).

Another well-established pattern in variation is that women tend to use more prestigious variants than men (Labov, 1972). Although gender has not been proven to significantly affect /s/ variation in all dialects, when it is does play a role, the general trend throughout the various dialects of Spanish is that women use the standard /s/ variant more than men (Bullock, Toribio, & Amengual, 2014; Calero Fernández, 1990; Cameron, 1996; Carvalho, 2006b; File-Muriel, 2007; among others). In addition to gender, age is often found to be a significant factor, and can either be a sign of age-grading or a change in progress. In Rivera, Carvalho (2006b) notes that the older speakers use the standard variant more than younger speakers, who are introducing the aspirated variant into the dialect. Lynch (2009) observes the opposite in Miami, where younger speakers of Miami Cuban Spanish demonstrate twice as much retention than the previous generation. Interestingly, this age difference is only true of the standard versus aspirated variant. Deleted /s/, in contrast, remains the same among the different generations of Miami Cuban Spanish speakers.

The last firmly established social factor to condition language variation, and in particular /s/ variation, is social class. The aforementioned classic study of Labov (1966, 1972) demonstrates not only that attention to speech affects variable realization, but social class as well. When social class is a significant factor in the pronunciation of /s/, it is the speakers of higher social classes that prefer to use the standard variant, and those of lower class producing more instances of nonstandard variants (Calero Fernández, 1990; Cameron, 1996; Cedergren, 1976; Lafford, 1986; Terrell, 1981; among others). In contrast, in her research on Uruguayan Spanish on the Brazilian border, Carvalho (2006b) finds that it is the higher social class that produces more aspiration, associating it with prestige. Carvalho explains that the Rivera dialect, which is characterized by elision due to contact with Portuguese, has begun to introduce aspiration in order to emulate the "prestigious"

city dialect. In breaking with the universal tendency of [s] > [h] > [ø], Carvalho's study demonstrates that social factors can prove stronger than typological tendencies. In the following section, the particular extralinguistic factors found to condition /s/ in and around Madrid region will be briefly discussed.

2.2.2 /s/ realization in and around the Madrid area

Both the Turnham and Lafford (1995) and Momcilovic (2005) studies referenced above analyze the standard sociolinguistic variables of gender and class. As Turnham and Lafford's participants are all high school students, they establish class based on the participants' parents' professions. Momcilovic, on the other hand, determines the class of her participants by education level, discovering, however, that education is only a relevant factor at the very lowest level. The findings of each study suggest that the variable is in fact stratified by class, lower class (or in Momcilovic's definition, education) producing the highest percentage of nonstandard /s/. Likewise, following sociolinguistic expectations, men use the "stigmatized" variants more than women in both the Turnham and Lafford and Momcilovic studies. Lastly, Momcilovic also considers age as a variable but finds very little variation among age groups, the youngest producing slightly less standard forms than the older two groups. In addition to social factors, the two studies also examine stylistic factors, quantifying variable use not only in the sociolinguistic interviews, but also in the more formal tasks of reading passages and wordlists. As is to be expected, the formal tasks produce more tokens of the standard [s] while informal conversation includes more instances of nonstandard variants. It is important to highlight that while both studies conclude that nonstandard /s/ is stigmatized, Momcilovic does not see a difference in usage among education levels after primary school. Likewise, although Turnham and Lafford

find that velarized /s/ is stratified by class, in certain tasks the middle class actually surpasses the lower class totals for [x] usage.

As for those studies of the nearby Manchego dialects, Sánchez-Muñoz (2004) does not consider any extralinguistic factors and Henriksen and Harper (2016) only examine the factor of gender, finding that speaker gender has no significant effect on /s/ realization in Toledo. Calero Fernández (1990), in contrast, affirms that in her study of Toledano speech, both gender and social class significantly affect /s/ realization, men and lower class using the standard /s/ variant less.

2.3 A WORD ABOUT APPROACHES TO STUDYING /S/ PRODUCTION IN SPANISH

As evidenced above, the /s/ variable in Spanish has been very-well studied throughout the years. Nearly all of these studies have conceptualized the /s/ as a categorical variable, consisting of discrete variants, most often standard [s], aspirated [h] and deleted [ø]. Recently, however, researchers have begun to consider a subsegmental approach to analyzing the /s/ variable, noting that the traditional method of impressionistically categorizing /s/ variants is rather subjective (Erker, 2010; File-Muriel & Brown 2011; Henriksen & Harper 2016). Indeed, in their experimental perception study, Diaz-Campos and File-Muriel (2004) show that (native Spanish speaking) listeners are not always accurate in their categorizations of /s/ variants, in particular before a pause, accuracy is less than 50%. Furthermore, Erker (2010) argues that a segmental approach to /s/ analysis groups instances of /s/ together that are actually quite different, acoustically speaking. He concludes that a subsegmental approach to analysis, in which variables such as center of gravity and duration are quantified, is able to better account for variation. File-Muriel and Brown agree with the need for a subsegmental approach, suggesting that “the subtle

differences between relatively similar sounds (sounds that might be coded as the same sound in a categorical classification) are crucial to our understanding of the nature of sound variation" (2011: 226). Like Erker (2010, 2012), File-Muriel and Brown (2011) study the variation of /s/ through an acoustic analysis of center of gravity and duration, as well as percent of voicelessness. They explain that a lower center of gravity, a shorter duration and voicing are all considered weakening tendencies.

In their study of coda /s/ in the Spanish of Toledo, Henriksen and Harper (2016) follow File-Muriel and Brown's (2011) lead, investigating /s/ weakening by measuring voicing, center of gravity and duration of /s/; however, in the case of velarized /s/, they show that using a decrease in duration as a sign of lenition problematizes conceptualizing velarization as a case of lenition. That is, they discover that the velarized /s/ has a longer duration than even standard /s/. In a continued study of New York Spanish, Erker (2012) takes both a segmental and subsegmental approach to analysis and finds that the two analyses produce differing results, leading to an amendment of the claim that a subsegmental analysis is a better approach, offering instead that neither approach on its own is able to capture the complete story of /s/ variation. The current project will take a segmental approach in order to best be able to compare the results to the previous studies on Madrileño Spanish, leaving a subsegmental analysis for future research.

2.4 UNDERSTANDING PERCEPTIONS OF /S/ REALIZATION

Recent trends in variation analysis focus on understanding the social meaning of particular variants; that is, investigating how speakers use variation to actively create social meaning rather than relying strictly on correlations to explain variation (Eckert, 2012). Essential to unpacking the social meaning of a variable is understanding how it is perceived. Indeed,

Drager (2010) identifies the need for such studies, calling for more perception studies within sociophonetics. Below in section 2.4.1, a brief discussion on the different approaches to studying perception and language attitudes is offered, followed by a review of the findings of /s/ perception throughout the Spanish-speaking world in section 2.4.2. This section will also offer the results of a pilot study of language attitudes in Madrid, as no other perception study, to the best of my knowledge, has been conducted on velarized /s/ in Madrid.

2.4.1 Approaches to studying perception and language attitudes

Garrett identifies three main approaches to the study of language attitudes, these include analysis of societal treatment, direct measures and indirect measures (2010:37). The first approach to studying language attitudes refers to studies that examine how language attitudes are presented through linguistic content in a public domain; for instance, Kramer (1974) investigates stereotyped gendered speech as represented in magazine cartoons. The second approach refers to directly asking participants about their language attitudes. Examples include Bullock and Toribio's (2014) study of attitudes towards English, Haitian Creole and French in the Dominican Republic and Suárez Bündenbender's (2011) research on Puerto Rican attitudes towards Dominican Spanish. In both of these studies, interviews were conducted in which participants were directly asked about their views towards the language(s) of study and speakers of the language(s). The last approach, the indirect method, is generally assessed through the use of the matched (or verbal) guise technique. The seminal matched guise attitudes study was conducted by Lambert, Hodgson, Gardner, and Filenbaum (1960) in Montreal, in which bilingual speakers of French and English were recorded reading passages in both languages and then listeners had to rate their judgments

of different personality traits for each recording. Despite the fact that the speakers were the same across the two languages, significant differences in personality ratings for each speaker guise emerged. Overall, English speaker guises were rated more positively than French speaker guises, and this was true for both English Canadian participants and French Canadian participants.

Since Lambert et al.'s (1960) seminal study, this method of using speaker guises and asking participants to make judgments regarding the guise has been frequently used to indirectly assess private language attitudes that would not necessarily be shared directly, and perhaps are not even conscious. Variations of the survey include Likert scale ratings as well as semantic differential scales in which the speaker is forced to make a snap judgment between two opposite traits, for instance, *nice* and *mean*. Garret (2010) explains that an advantage to choosing semantic differential scales is that they "help to elicit snap judgements and minimize opportunities for mental processing, thus reducing the possibilities for the social desirability and acquiescence biases" (2010: 56). Through the years, researchers have adapted the matched guise survey technique, and one such example is Campbell-Kibler (2007). Campbell-Kibler investigates attitudes towards *–ing/-in*, in combination with attitudes towards particular dialects, and in doing so she combines the indirect and direct approaches, including focus-group discussions about impressions of the different guises used in her study.

Specific to language attitudes in and towards Spanish, the matched guise technique has been used to learn about perception of accented speech in bilinguals (Brennan & Brennan, 1981; Ryan, Carranza, & Moffie, 1975; among others), attitudes towards different dialectal varieties (Berk-Seligson, 1984), and attitudes towards variation in specific phones within a variety (Chappell, 2016; Díaz-Campos & Killam, 2012; Walker et al., 2014). The two specific linguistic variables that Díaz-Campos and Killam (2012)

investigate via the matched guise technique include syllable final /ɾ/ deletion and intervocalic /d/ deletion in Venezuelan Spanish, finding that /ɾ/ retention is evaluated more positively than deletion. Specifically, ratings of intelligence and professionalism were significantly affected by the variant used, retention receiving more positive evaluations. Qualities such as kindness and attractiveness were also rated more positively with standard /ɾ/, but these differences were not found to be significant. As far as perception of intervocalic /d/ deletion, Díaz-Campos and Killam affirm that although retention trends towards higher ratings in all categories, unlike syllable-final /ɾ/, none of the differences in attitudes towards retention and deletion are statistically significant. Based on these findings, Díaz-Campos and Killam can conclude that while syllable-final /ɾ/ deletion in Venezuelan Spanish is stigmatized, intervocalic /d/ deletion is not.

2.4.2 Perceptions of /s/ realization throughout the Spanish-speaking world

The perception studies of /s/ throughout the Spanish-speaking world are not nearly as numerous as those conducted on production; actually, it is quite the opposite. In fact, Díaz-Campos and Killam observe that perception studies of *any* linguistic variables in Spanish are rather scarce (2012: 83). To the best of my knowledge, there have only been two language attitudes study of /s/, that of Walker et al. (2014) and Chappell (2016). Walker et al. investigate language attitudes towards aspiration and retention of /s/ coupled with attitudes towards the Mexican and Puerto Rican dialects. Their matched guise findings show that the standard /s/ increased ratings of status and niceness for speakers of both dialects, although more so in the Mexican dialect. They also find that standard /s/ is seen as less heteronormative by both Puerto Rican listeners and male Mexican listeners (but not by female Mexican listeners). Chappell (2016) also conducted a matched guise language

attitudes study on /s/ variation, focusing however on a different variant, the case of intervocalic voicing in Costa Rican Spanish. She finds that the nonstandard variant, here [z], leads to lower evaluations of status. With respect to the variable's effect on positive social evaluations, the intervocalic [z] actually increases the perception of positive social traits in male speakers. Women, however, do not have access to this positive effect of [z], the judgments of their positive social traits remaining the same between the two variants. This result leads Chappell to postulate an explanation for the well-known gender paradox (Labov, 2001), arguing that women lead in language change only when they have access to the positive traits particular variants relay. She argues that when this is not the case, they prefer to use the prestigious form. This explanation of the puzzling gender paradox is an example of the importance of perception and attitudes research in complementing and informing that which is found in production studies.

As aforementioned, to the best of my knowledge, there have not been any perception studies of the /s/ variable conducted in and around the Madrid area. For this reason, before beginning the current perception study outlined in chapter 3, a pilot study was conducted in order to inform the parameters of the larger study presented in this work. The study employed a matched guise survey, utilizing the same methodology as the current study, outlined in chapter 3, section 3.2. The pilot study differed, however, in that the speakers used were all male, and furthermore, unlike the current study, many of the questions were left open-ended. Rather than asking participants to rate particular traits, respondents were asked, for instance, *¿cómo será esta persona?*. The adjectives that were most often provided were then used in the construction of the forced-choice questions used in the language attitudes study presented in chapter 3. Among the main findings of this pilot study were that velarized /s/ is associated with lower class, lower education and negative judgements of cognitive abilities and work ethic. The velarized /s/ was not found

to be viewed entirely negatively, however, in that it did not have an effect on a speaker's appeal as a friend nor on the affective traits ascribed to the speakers.

2.5 NONSTANDARD /S/ IN COMPUTER-MEDIATED COMMUNICATION: A PILOT STUDY

In addition to the pilot matched guise study, the studies presented in this work were also informed by a pilot study of nonstandard /s/ as orthographically represented in computer-mediated communication (CMC). Data gathered from a wide range of internet sources, from informal comments of social networking sites to political rhetoric on formal blogs and forums, was collected by means of a general *Google* search of four specific words/phrases and their particular spelling variants, *es que, qué asco, España*[2] *and Espe*[3] In carrying out the search, "Madrid" was included with *es que* and *Espe* in an attempt to limit the results and assure that they were in fact referring to Madrid or Spain in general. As all Google searches yielded well over 1000 results, the search was limited to the first few pages immediately offered by Google. The data collected from these pages were then closely studied in order to establish common contexts in which the unconventional spellings of *s* would appear. A summary of the results and examples of instances in which the velarized /s/ is orthographically represented are offered in what follows.

[2]Although Lipski (1986), Turnham and Lafford (1995) and Henriksen and Harper (2016) all claim that the velarized /s/ appears before the homorganic context of /k/, Momcilovic (2005) does note that the velarized variant does appear in other contexts. Because this was casually observed to be the case on social media, for instance *¡vamos Ejjjjpaña!* during the World Cup, *Ejpaña* and a comparable context that was surely associated with Madrid, *Ejpe*, were included in the study.

[3] *Espe* is short for Esperanza, referring to Esperanza Aguirre, the president of the autonomous community of Madrid at the time the study was conducted.

2.5.1. Egpaña/ Ejpaña

Two basic trends emerged for tokens of *E[x]paña*, a positive context that conveyed essence of/pride in Spain and a negative context associated with traditional and conservative politics and somewhat "backwards", *paleto* (country bumpkin), characteristics. The first of these two, Eg/jpaña as essence of Spain/national pride, is illustrated with several examples provided in (3)[4].

3) Egpaña: Essence of Spain/ Pride

   a. Jaja **Ejpaña** en estado puro ;)
   *Haha **Spain** in its pure state ;)*
   twitter.com/Ancalu/status/55290751034212354

   b. dave en **eJpaña**
   *Dave in **Spain***
   dave2006a.blogspot.com/

   c. **Egpaña!!** Bueno aun no habia puesto na´ del mundial pero esque la fase de grupos no va en serio (es como un concierto de reggae sin porros, le falta algo), las eliminaciones directas llegan!
   Esta tarde España-Portugal.
   Spain!!
   Well I still hadn't put up anything about the world cup but it's just that the group phase isn't serious (it's like a reggae concert without joints, something's missing), the direct eliminations are here!
   This afternoon Spain- Portugal.
   http://vomitoentudesayuno.blogspot.es/

   d. La presentadora mas GUAPA y NATURAL de **Ejpaña**
   *The prettiest and most natural presenter in **Spain***
   http://www.forocoches.com/foro/showthread.php?t=1688925&page=3

[4]All the examples extracted from online sources maintain the original spelling and punctuation.

In (3a), the association between *essence of Spain/pure Spain* can be clearly seen. Titles such as this were quite common among sources such as photologs. The example given in (3b) was not written by a Spaniard but rather a foreigner living in Spain. Like (3a), this type of title was also common, people studying/living in Spain wanting to show that they had learned to say *España* the way that "real" Spaniards do. Examples (3c) and (3d) demonstrate the author's pride and positive feelings toward Spain. (3c) is associated with pride in the soccer team while (3d) talks about the beautiful TV hosts in Spain. While all the contexts with an "orthographically postvelar sound" presented in (3) are positive, *Egpaña* seems to also hold a negative indexicality, as shown in (4).

4) Egpaña: Paletos and Politics

a. Y es que, Sras. y Sres., la política y la banca, o sea, **Ejpaña**, su **Ejpaña** intervenida, son así. Mientras, la prensa "libre" centrada en la ola de frio, en los Goya y los Oscar.
*And, ladies and gentlemen, politics and the bank, that is, **Spain**, your intervened **Spain** are that way. Meanwhile, the "free press"[is] focused on the coldfront, the Goya awards and the Oscars.*
http://regeneracionsocialista.blogspot.com/2011/01/su-ejpanaintervenida.html

b. ¿**Egpaña**? va bien. ¿y Madrid? cojonudo
Lo de la sanidad pública en Madrid parece sacado de un relato de ciencia ficción.
***Spain**? going well. and Madrid? awesome.*
What's been going on in public health in Madrid seems to be taken out of a science fiction movie.
thenine.lacoctelera.net/post/.../egpana-va-bien-y-madrid-cojonudo

c. **Ejpaña** (del íbero Spain [del latín Ass Pain]) es un pequeño país montañoso dominado por una estatua gigante de mármol del generalísimo Francisco Franco (El Paquísimo).
***Spain** (from Iberian Spain [from Latin Ass Pain]) is a small mountainous country dominated by a giant marble statue of generalísimo Francisco Franco (The Paquísimo)*

http://www.foroloco.net/t1467/ejpaa/

d. España me encanta, **EJJJPAÑA** me espanta.
*Spain I love, **Spain** scares me.*
http://ppringaos.blogspot.com/2008/05/no-me-gusta-ejjjpaa.html

e. Creo que todo el mundo entendió que con ello pretendía resaltar el carácter palurdo e inculto, a la vez que prepotente, de los nuevos giliprogres patrios. Yo personalmente no escribo "**Egggpaña**" o "**egggpañoles**" gratuitamente, sin ton ni son. Si el hilo hubiera versado sobre un tema totalmente distinto (por ejemplo, literatura, música, arte, etc... sin otras connotaciones que las puramente artísticas) habría escrito "España" o "españoles", como siempre.
I think that everyone understood that with that [use of g in spelling Egpaña] I was trying to highlight the boorish and uncultured , at the same time arrogant, character of the new giliprogres *[a combination of* gillipollas (*asshole) and* progreso *(progress)] natives. I personally do not write **Spain** or **Spaniards** gratuitously, without any reason. If the thread had discussed a completely different subject (for example, literature, music, art, etc… without any other connotations than those purely artistic) I would have written "Spain" or "Spaniards", as always.*
http://www.liberal.cl/foros/discussion/4038/ni-puta-gracia/

f. Facebook group: **Ejpaña** nuevo nombre patrio.
Ya que soys gilipollas y no sabeis pronunciar el nombre del pais que tanto amais unios y recogeremos firmas para que lo cambien.
*Facebook group: **Spain** new homeland name*
Since you guys are idiots and don't know how to pronounce the name of the country that you all love so much, join in and we'll collect signatures so that they change it.
http://www.facebook.com/#!/group.php?gid=138001729551756

In examples (4a) and (4b), the authors use *Eg/jpaña* with a sarcastic tone, criticizing the current political and social state of affairs in the country, and alluding to the fact that ignorant citizens (perhaps those that might pronounce the postvelar fricative when saying *España*) focus on frivolous things and are unaware of the grave state surrounding them.

(4c) is a clear example, of which there were many, of *Ejpaña* appearing with complaints of rightwing politics, associated with Spain's fascist past. Example (4d) even more clearly shows that it is truly the spelling *Ejpaña* which is associated with these politics, the author stating that *España* is great while it is *Ejpaña* that is scary. Within this use of *Ejpaña,* the author is indexing the negative, rightwing, *paleto* connotations associated with such a pronunciation. Examples (4e) and (4f) actually refer directly to the kind of people that utilize the unconventional spelling and/or pronunciation of *Egpaña*. In (4e), the author is responding to a forum thread that someone began complaining that he did not find the now fashionable unconventional spelling of Spain in any way funny (*ni puta gracia*). The author of (4e) explains that clearly the use of *Egpaña* and *egpañoles* is "to highlight the boorish and uncultured, at the same time arrogant, character of the new *giliprogres* natives". In the same way, the creator of the Facebook group *Ejpaña nuevo nombre patrio* sarcastically calls the Spaniards that "don't know how" to pronounce the name of their country *gilipollas*. The examples above show that speakers consciously use *Ej/gpaña* to index a negative connotation, and expect the reader to share in this meaning.

2.5.2 Ej que, la Ejpe

Like E*jpaña*, with *ej que* the idea of *pure* Madrid/pride in Madrid emerged, as did a paradoxical negative index of lower class, perhaps the city version of *paleto*. Furthermore, the unconventional spellings were used for emphasis or for a humorous effect. The first grouping of Pure Madrid/Pride are presented in (5).

5) Ej que: Pure Madrid/Pride

a[i] **EJ QUE** los de Madrid somos los mejores Orgullo de ser de Madrid (sin territorialismos ni gilipolleces de esas, ojo)
It's that *those of us from Madrid are the best*
Pride of being from Madrid (without territorialisms or any of that stupidity, careful)

a[ii] Si quieres probar **'peJcao freJco**, **freJco'** vente a MadriZ. En la capital se vende el pescado más fresco de toda España y os jodéis porque es así.(Y el mas caro, pero no nos importa porque no somos catalanes)
*If you want to try '****pejcao*** *(*pescado, *fish*) ***frejco***, ***frejco*** (fresco, *fresh*)*' come to Madrith. In the capital they sell the freshest fish in all of Spain and you can screw yourselves because that's how it is. (And the most expensive, but we don't care because we're not Catalans).*

a[iii] Un pijo es un pijo en Madrid o en Salamanca, pero la gracia de un madrileño sólo la tienen los **gatos de pura cepa**!!!
A yuppy is a yuppy in Madrid or in Salamanca, but only the pure ***gatos*** *(someone from Madrid) have the charm of a madrileño!!!*
http://mjhideout.com/forum/chillout/78121-ej-que-de-madrid-mejores.html

b. **Ej que** madriz mola mazo
It's that *Madrith rules.*
http://picasaweb.google.com/solanet/EjQueMadrizMolaMazo#

The above examples demonstrate pride in being Madrileño. The first three examples are taken from a blog entitled *Ej que los de Madrid somos los mejores!*. The reader will note that there is no orthographically represented velarized /s/ in (5a[iii]), but this sentence from the blog is included to show how the author who is orthographically representing velarized /s/ finds a "pure Madrileño" (*gato puro*) a source of pride. Two of the examples, (5a[ii]) and (5b), also combine the unconventional spelling of *Madriz*

(madri[ϴ]) with "*s*">"*j*" in order to orthographically represent the two defining characteristics of the Madrileño dialect, both with a very positive connotation.

The examples reproduced in (6) show the unconventional spelling also being used for a performative and humorous effect.

6) Ej que: Performance, being funny and emphatic

   a. **ej que** el calor, el frío, las cuestas, el tráfico, el carril bici,...
   It's just that *the heat, the cold, the hills, the traffic, the bike lane,…*
   http://www.enbicipormadrid.es/2010/11/saca-tu-bici-tambien-en-invierno.html

   b. **Ej que** mi agüela ha tosío esta mañana, **ej que** el año pasado se me posó una avispa en el objetivo de la cámara, **ej que** no encuentro mis zapatillas de felpa, **ej que** mi hermano me ha dicho que soy hijo de otro padre...**ej que**...
   It's just that *my gwandma coughed this morning,* ***it's just that*** *last year a wasp landed on the target of my photograph,* ***it's just that*** *I can't find my plush shoes,* ***it's just that*** *my brother told me that I'm another man's son…* ***it's just that…***
   http://www.enbicipormadrid.es/2010/11/saca-tu-bici-tambien-en-invierno.html

Examples (6a) and (6b) come from the same thread of comments on a post. Two different authors are listing (ridiculous) excuses people give for not using their bicycles, and the use of *ej que* gives the comments a more humorous effect, and perhaps projects a slightly negative stance, as seen in (4) and (7).

Finally, like *Ejpaña, ej que* as well as *Ejpe* appeared to suggest a negative association, presented in (7).

7) Ej que, la Ejpe: Negative, paletos and politics

a. No os dejéis engañar. Los que pronuncian "**Ej que**" en vez de "Es que" no son madrileños, son barriobajeros madrileños, que es muy diferente. Qué aquí siempre ha habido clases hasta en los acentos.
*Don't be fooled. Those that pronounce **"Ej que"** instead of "Es que" are not madrileños, they're low-class madrileños, which is very different. Here there have always been classes even in accents.*
http://www.virtualtourist.com/travel/Europe/Spain/Comunidad_de_Madrid/Madrid-262020/General_Tips-Madrid-Cultural_tips-BR-1.html#ixzz1JYdez46Q

b. Sobre la pronunciación en Madrid, yo también he oído que decimos (se supone) Madriz y **ej que**, pero ni yo ni ninguna persona que conozco lo dice así (lo digo y suelo oir como Madrí-acentuado en la i). Lo de **ej que** suele coincidir con gente que habla más coloquial(adolescentes) o de clase baja.
*Regarding the pronunciation of Madrid, I also have heard that we say (supposedly) Madrith and **ej que**, but neither I nor any person I know says it like that (I say it and usually hear it as Madrí- accented on the i). The **ej que** thing tends to coincide with people that speak more colloquially (adolescents) or lower class.*
http://www.spaniards.es/foros/2008/06/03/cliches-espana

c. Hay muchos otros datos que "demuestran" que Doña **Ejpe** no es la presidenta que "crea" más puestos de trabajo.
*There are a lot of other data that "show" that Doña **Ejpe** is not the president that "creates" the most jobs.*
http://www.burbuja.info/inmobiliaria/burbuja-inmobiliaria/84493-burbuja-info-y-los-mamporreros-de-la-ejpe-2.html

d. La **Ejpe** (no se merece otro trato) salió diciendo que la culpa era del tábaco, que la gente fumaba mucho, haciendo alusión a la ley del tábaco.
*The **Ejpe** (she doesn't deserve any other treatment) came out saying that tobacco was to blame, that people smoked a lot, alluding to the tobacco law.*
http://www.unabuenanoticiahoy.com/2011/02/la-lluvia-nos-salva-de-la-contaminacion.html

The first two examples, (7a) and (7b) are direct comments of negative attitudes towards an *ej que* pronunciation, associating it with lower class. Both authors claim never to produce such pronunciation, although many other sites claim that the *ej que* pronunciation on some occasion "escapes" from nearly all Madrileños. Examples (7c) and (7d) echo what was seen in (4), complaining about politics, and in particular the president of Madrid, Esperanza Aguirre.

2.6 SUMMARY OF PREVIOUS FINDINGS

Among the numerous studies of /s/ variation in Spanish, it has been found that the linguistic factors of phonological environment, syllable position, word position, stress, morphological role, additional plural information, parallelism, speech rate, word length and lexical frequency all may condition the realization of /s/, although the significance of these particular factors and their individual effects vary between dialects and studies. In addition, the extralinguistic factors of social class, attention paid to speech/ formality, education, age and gender have all been found to play varying roles in /s/ realization throughout the Spanish-speaking world. Specifically in Madrid, following segment has been shown to affect /s/, as has social class and gender, and near Madrid in Toledo, we have seen that stress and word position also condition /s/.

What remains unknown regarding /s/ in Madrid is 1) the distribution of the standard, aspirated, elided and velarized variants, 2) additional linguistic factors that may affect /s/ realization and 3) how the salient velarized /s/ is perceived and whether it is as closely associated with Madrid as it appeared to be in the CMC pilot study. The pilot matched guise and CMC studies provided insight into identities associated with velarized /s/. The perception study presented in Chapter 3 aims to corroborate, or refute, these

findings through statistical and qualitative analysis of 386 complete language attitude surveys. In Chapter 4, production of coda /s/ is examined, addressing the lacunas in what is known of the /s/ variable in Madrid.

Chapter 3: Perception study

Essential to unpacking the social meaning of the velarized /s/ variant is to understand how it is perceived. To this end, a language attitudes study was conducted in order to discover the identities perceived and associated with nonstandard /s/, specifically the velarized coda /s/. This language attitudes study took the form of a matched guise survey in which a total of 386 participants, representative of all Autonomous Communities in Spain, were asked to listen to different recordings and make certain judgments about each speaker they had heard. As is the nature of the matched guise technique, the participants were not actually judging speakers, but rather speaker *guises*. Following each recording, the participants were asked to speculate as to the origin of the speaker, thus providing evidence of whether the velarized /s/ variant is indeed considered a Madrileño variant. Furthermore, they were asked to make judgments regarding specific traits of the speaker, hence revealing particular attitudes towards speakers when they use standard versus velarized /s/. In this way, in the first study of its kind with respect to /s/ in Madrid, this perception study affords insight into part of the social meaning of velarized Madrileño /s/.

The structure of this chapter is such that first the research questions guiding the language attitudes study, and their corresponding hypotheses, are presented in section 3.1 followed by a detailed explanation of the methodology in section 3.2. Within the methodology section are included a description of the speakers and recordings used for the survey, an account of the survey design and the respondents participating in the study, and finally, an explanation of the statistical tests and software used in analyzing the results. Next, in section 3.3, the results from the data as a whole are presented, followed by, in section 3.4, an analysis of the results with a focus on difference in judgments according to speaker sex. Lastly, in section 3.5 the data and results are examined with a focus on the

respondents themselves. First, variation in velarized /s/ perception between male and female respondents will be discussed in section 3.5.1 followed by an analysis of language attitudes towards the /s/ variable according to respondent origin in section 3.5.2. Conclusions are offered in section 3.6.

3.1 RESEARCH QUESTIONS AND HYPOTHESES

The purpose of the language attitudes study of the dissertation was to discover the identities perceived and associated with the nonstandard /s/, specifically the velarized coda /s/. Guiding this investigation were several research questions:

i. What are the positive and negative characteristics and identities associated with velarized /s/, and do the perceived identities of speakers with [s] vs [x] match those observed in the pilot study of online orthographic representations of nonstandard /s/[5]?
ii. Does the perception of [s]/[x] vary according to speaker sex?
iii. Does the perception of [s]/[x] vary according to the gender of survey respondents?
iv. Which listeners, in terms of origin, associate velarized /s/ with Madrid?
v. How does the listener's place of origin affect perception of the variable?

The first question, (i), aimed to determine the socio-indexical attributes associated with velarized /s/ with the hope of discovering indications of covert prestige among listener participant perceptions. Furthermore, the study sought to corroborate the findings from online orthographic pilot data, that is, to find out whether listeners were actually perceiving the same identities with velarized /s/ as those observed to be performed online through

[5] See Chapter 2, section 2.5 for pilot study results.

orthographic representations of the nonstandard variant. As high professional appeal and high social appeal often do not coincide (Chappell, 2016; Garrett, 2010), it was hypothesized that when compared to ratings of speaker guises with standard /s/, the ratings of competence among speakers using velarized /s/ would lower while ratings of social attractiveness would increase. In this manner, the humorous aspect of nonstandard /s/ observed in the computer-mediated communication (CMC) data was expected to be echoed in the perception task with listeners perceiving velarized /s/ speakers to be funny. This was indeed the case in the open-ended pilot perception study[6]. In the same way, it was thought that the CMC performances of nonstandard /s/ in association with critiquing "backwards", ignorant politics would be reflected in lower ratings of competence associated with velarized /s/ and that identification of "authentic" Madrileño would be reflected in perception in attitudes of solidarity.

In addition to uncovering the identities associated with the coda /s/ variable, the language attitudes study sought to determine whether the perception of the speakers in association with a particular variant used changed according to speaker sex. The initial language attitudes pilot study included only male speakers and therefore the effect that speaker sex might have on variant perception was unknown. However, based on the findings of Momcilovic (2005) and Turnham and Lafford (1995), in which male speakers were found to use nonstandard /s/ more than female speakers, it was hypothesized that the velarized variant would be perhaps more marked for female speakers and thus more acceptable and less negatively judged in male speakers.

[6] See Chapter 2, section 2.4.2 for a brief summary of the pilot study results.

The third research question also addressed the role of gender, asking whether perception of the /s/ variable would vary according to the gender[7] of the survey respondents. Male respondents were expected to view velarized /s/ more favorably than female respondents, as it is a normatively stigmatized variant and it is an established principle in sociolinguistics that women are more concerned with standard forms (Cheshire, 2002; Labov, 1972). Similarly, as women are also those speakers that are most creative in using nonstandard forms, it was postulated that a greater discrepancy would be seen among women and their perception versus their production[8] of velarized /s/ than among men.

Next, as the language attitudes survey would be sent to Spanish citizens from all regions of Spain, the question of which listeners associated the velarized /s/ with Madrid arose. While the pilot attitudes study had already confirmed that velarized /s/ is associated with Madrid, it remained unknown for which speakers this held true. It was hypothesized that most listener participants would identify the velarized /s/ with Madrid, with the exception of those participants from Castile-La Mancha, as residents from this southern neighbor of the Madrid region have also been cited to use this variant (Henriksen & Harper, 2016; Rodríguez-Pineda, 1994). Furthermore, based on observations from online orthographic representations of the nonstandard /s/ by Catalan authors when criticizing Spain and Madrid, it was expected that Catalan listeners would be particularly cognizant of the velarized Madrileño speaker.

Finally, the origin of listener participants was addressed in the last research question, exploring how the listeners' origin affects their perception of the variable. Garrett

[7] In this chapter, "gender" rather than "sex" is used to describe the respondents. This is because respondents were asked to provide their gender in the survey, rather than sex.
[8] Production results presented in Chapter 4.

(2010) advocates considering the background of the listener participants themselves in studies of language attitudes, and in this way, both listener gender and place of origin were included as variables in the examination of the attitudes conveyed towards each of the speakers and the respective /s/ variants used. It was hypothesized that a clear difference in /s/ variable perception would arise according to participant region, perhaps most accepted by the regions that employ the nonstandard variant themselves. Furthermore, based on the CMC pilot findings of conflicting prestige of velarized /s/ both as a marker of lower class and backwards thinking and as a source of pride and authenticity, it was unclear whether Madrileños themselves would receive the velarized variant positively or negatively. It was postulated that Madrileños would view the nonstandard variant negatively in terms of competence, but that they would be among those participants that most highly rated the velarized /s/ speakers in affective qualities.

3.2 METHODOLOGY

In order to assess the language attitudes towards the /s/ variable, a matched guise survey was created and then widely distributed throughout the Spanish peninsula. Traditionally, the matched guise technique presents listeners with recordings of the same speaker using different variants, languages or codes, and then following each recording, asks participants to provide judgments regarding each speaker guise (Garrett, 2010; Kiesling, 2011; Lambert, 1967; Silva-Corvalán, 2001). In this study, there were four speakers used for the recordings, two males and two females. Each of the speakers produced two recordings, one in which the target words employed the standard [s] and another in which the [x] variant was used. Thus, there were a total of eight recordings which were then divided into two different versions of the same survey, each version presenting only four recordings. A

detailed description of the recordings and speakers are presented below followed by an explanation of survey design, distribution and data analysis.

3.2.1 The recordings

In producing the recordings, the traditional matched guise test controls for content, and certainly since technology has allowed us to easily manipulate sound, recent studies have used the same recording, manually manipulating the variant of study (Campbell-Kibler, 2007; Chappell, 2016; Fridland, Bartlett, & Kreuz, 2004). Thus, the only confounding factor affecting the listeners' differing perceptions is the variable of study. In the case of this study and the nonstandard /s/ variant, however, keeping a uniform script would, in itself, be a confounding factor. Based on the findings of both Momcilovic (2005) and Turnham and Lafford (1995) that nonstandard /s/ is a lower-class variant, it was decided that if participants believed the speakers to be *reading* a uniform script, it was probable that an automatic negative perception (e.g., low education level) would be associated with the reader of the nonstandard /s/ variant, [x]. At the same time, however, it was also necessary to control the content of "spontaneous" speech in each recording as much as possible. Indeed, Campbell-Kibler (2007) found that the differences in content in her recordings affected the results in her matched guise tests conducted using spontaneous speech. For this reason, the adapted matched guise technique for the current study incorporated a *seemingly* spontaneous task, utilizing recordings that were as uniform as possible while at the same time maintaining a guise of "natural" speech. The method for achieving this balance is outlined below.

In order to create a seemingly spontaneous task, four scripts were written, each telling the same story, and although the speakers read these scripts, the listener participants were told that each speaker was asked to *narrate* the picture-story "Frog, Where are You?"

(Mayer, 1969). In this way, the listeners were led to believe that the speakers were telling a story rather than reading a script, thus avoiding the stigma of reading with the nonstandard variant while at the same time providing an acceptable "excuse" for the minimal variation in the lexical items used. Specifically, words with an appropriate linguistic environment for the variant, such as *bu[s/x]car* and *bo[s/x]que*, were able to be logically repeated across recordings. In crafting the four scripts used, particular care was taken in order to maintain a neutral tone and vocabulary, and these were given to native Madrileños for revision. It is important to note that while the lack of uniform recordings creates the possibility of other factors influencing the participants' judgments, in a pilot study using this methodology, several participants did, in fact, mention the [x] variant when asked about the characteristics influencing their impressions of the speakers. In section 3.3, we will see this repeated in the larger study, where 36.9% of the respondents mentioned the velarized /s/.

The recordings used varied in length from 1:19 to 2:04 minutes in version A and 2:05 – 2:12 in version B. While many standard /s/ segments appeared in all recordings, velarized /s/ was only included in the contexts in which it has most been cited to occur, that is, before the voiceless velar consonant [k] (Lipski, 1986; Turnham & Lafford, 1995). This led to a range of 6-10 words with a [xk] cluster used among the velarized /s/ recordings, these word include *bosque, buscan, buscando, buscar, buscarla, búsqueda, escapa, escapado* and *frasco.* The complete scripts used in all recordings, both standard and nonstandard, are provided in Appendix A.

As aforementioned, two versions of the matched guise survey were created in order to assure that the tendencies presented were not merely participants reacting to a particular speaker. Each version was exactly the same, with the only difference being version A

included the recordings of Beatriz and Luis, and version B those of Ainoa and Dani[9]. All four speakers were native-born Madrileños and at the time of recording were residing within the community of Madrid. Beatriz, age 36[10], is originally from and continues to reside in Mósteles. She holds a university degree and works in administration of an elementary school. Her father is originally from Córdoba (Andalusia) and her mother from Ciudad Real (Castile- La Mancha). Luis, age 26[11], lived in Vallecas until the age of 12, when his family moved to the neighborhood of Fuencarral. Luis did not attend university. Luis's father is also from Madrid and his mother is originally from Segovia (Castile and León). Ainoa, age 26[12], and Dani, age 22[13], are brother and sister, both growing up in Alcalá de Henares, although Ainoa has lived in Madrid proper for the last year and a half. Their mother is from the Basque Country, although she came to Alcalá in her adolescence, and their father is from Alcalá as well. Ainoa holds a Master's degree and currently works for a company in Madrid proper. Dani is looking for a job, as he has just graduated with his undergraduate degree. Ainoa is the only speaker that has lived outside of the community of Madrid, including six months in Galicia and one year of study abroad in Holland.

In order to achieve as natural a recording as possible and give credibility to the task being "spontaneous", all speakers were told to read the script as if they were *telling* (rather than reading) the story and were given time to practice the scripts and record each as many times as necessary. Although only two recordings were used from each speaker, they were asked to record a final version of all four scripts twice, once with standard /s/ where indicated, and one with a velarized /s/ where indicated. Each speaker produced between 16

[9] Beatriz, Luis, Ainoa and Dani are pseudonyms.
[10] At the time of recording.
[11] At the time of recording.
[12] At the time of recording.
[13] At the time of recording.

and 23 recordings, from which the most natural two, one with /s/ > [s] and another with /s/ > [x], were elected. Ainoa and Dani were paired together for one version of the survey, as they are siblings and thus variation in the environment in which they were raised would be minimal. In this pair, Ainoa found it more difficult to naturally produce the velarized variant while reading the script. Her brother, on the other hand, had difficulty producing a whole recording without using the velarized /s/. For this reason, his best recording still had a nonstandard coda /s/ in one of the words and had to be manipulated in Praat, replaced with an identical segment from another word in which he did in fact pronounce the standard [s]. In the grouping of Beatriz and Luis, the opposite was the case in which Beatriz found it less natural to use only standard /s/, while Luis found it uncomfortable to force a velarized pronunciation. Lastly, it should be mentioned that as each version of the survey repeated two speakers, that is, version A presented the participants with recordings of Beatriz [x], Luis [s], Beatriz [s] and Luis [x], and version B contained recordings of Dani [x], Ainoa [s], Dani [s] and Ainoa [x], speaker pitch was manipulated so that listeners would believe they were in fact listening to four different speakers. In version A, Beatriz's standard /s/ recording was lower and the velarized /s/ recording higher, while Luis's standard /s/ recording was higher and the velarized /s/ lower. In the same way, Dani's standard /s/ recording was lower and the velarized /x/ recording higher, while Ainoa's standard /s/ recording was higher and the velarized /s/ lower. A summary of the speakers used in each version of the survey, as well as the order of their variants, their pitch and the length of their recording, is presented below in Table 1.

	1st recording	Pitch	2nd recording	Pitch	3rd recording	Pitch	4th recording	Pitch
Version A	Beatriz [x] (1:48 min)	↑	Luis [s] (1:37 min)	↑	Beatriz [s] (2:04 min)	↓	Luis [x] (1:19 min)	↓
Version B	Dani [x] (2:05 min)	↑	Ainoa [s] (2:12 min)	↑	Dani [s] (2:11 min)	↓	Ainoa [x] (2:10 min)	↓

Table 1: Summary of recordings and speakers used in each version of the survey

3.2.2 Survey design

In her adapted version of the matched guise technique, Campbell-Kibler (2007) found that her focus group discussions regarding the recordings produced descriptions and associations with the speakers that she would not have expected. Indeed, Kiesling warns that "a danger of the matched guise method [is] the experimenter chooses ahead of time the possibilities for how a speaker may respond" (2011: 141). For this reason, the adjectives used in the survey were informed by participants themselves. A pilot study[14] was carried out asking open-ended questions such as "¿cómo será esta persona?", and from this study, those adjectives which were most often mentioned were included in a mainly forced-choice survey style.

The survey was created using the online server and software *SurveyGizmo*. Participants were asked to respond to a set of 10-11 questions regarding their perception of the speaker after each recording. Participants were asked to comment on the following aspects of the speaker[15]: 1) place of origin, 2) personality, 3) education level, 4) social class, 5) profession, 6) whether they would like to have the speaker as a friend, 7) whether they would like to have the speaker as a work colleague, 8) whether they would hire the speaker to work them, 9) whether they liked how the speaker told the story, 10) whether

[14] A brief summary of these pilot study results is offered in Chapter 2, section 2.4.2.
[15] See Appendix B for survey questions.

they thought they would get along with the speaker, and finally 11) if they could pinpoint any particular aspects of the recording that led them to make the conclusions they did about the speaker. This last question was only included with the last two recordings so that the participants only consciously focused on specific sounds for the last two recordings, once with [s] and once with [x], and in this way were not looking for a particular sound throughout the survey.

For the first question regarding speaker origin, listener participants were offered multiple choice options which included all 17 Autonomous Communities of Spain as well as the options of "I don't know", "this person is not from Spain", and "other" with space for a write-in option. Next, participants were asked to make judgments regarding the speaker's personality and character. As aforementioned, the adjectives used in this part of the survey were taken from those most frequently mentioned in the open-ended question of the pilot study. These adjectives were presented in two different formats, semantic differential scales (8 pairs of adjectives) and Likert scales (4 adjectives). In semantic differential scales, an adjective is presented at one end of a scale and its opposite at the other, for instance as shown in Figure 1. The descriptor pairs used in this study included intelligent/dumb (*inteligente*/*tonto*), lazy/hardworking (*perezoso/trabjador*), kind/harsh (*majo/raspa*[16]), fun/boring (*divertido/aburrido*), nice/mean (*simpático/antipático*), cold/loving (*seco/cariñoso*), insecure/secure (*inseguro/seguro*) and good person/bad person (*buena persona/mala persona*).

[16] Here, *raspa* is not actually an adjective, but rather is the third person singular form of the verb "raspar". It was used in this case because native Spaniards offered this as the best "opposite" description for *majo*.

Figure 1: Example of semantic scale rating question.

A second format, a Likert scale rating, was used for four of the frequently mentioned descriptors due to the semantic ambiguities of the adjectives themselves. One such example is *serio* (serious), which could be both positive (e.g., perhaps responsible at work) and negative (e.g., perhaps a boring person). By choosing the opposing adjective to be used with the semantic differential scale, the researcher automatically assumes a particular meaning for the participant. In order to avoid this, the four adjectives which could have both positive and negative interpretations were included alone on a Likert scale, asking the respondents to what degree they agreed that the adjective described the person. Furthermore, in order to disambiguate the attitude the listener associated with this decision, the respondent was asked to provide a synonym for each adjective. An example of this question format is presented in Figure 2.

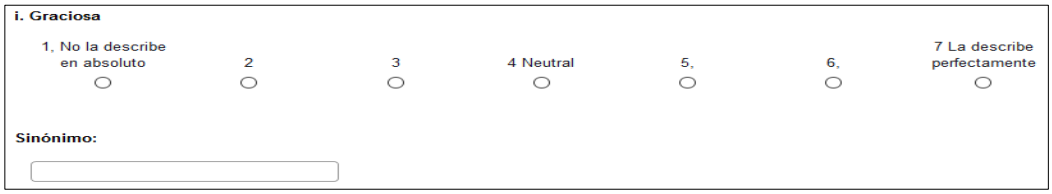


Figure 2: Example of Likert scale rating question.

For the next two questions regarding speaker education level and class, respondents were given a drop down menu containing multiple options. For education level, these options included elementary (*primaria*), high school (*secundaria*), university (*universidad*), graduate school (*estudios posgrados*) and technical school (*estudios ténicos*). For speaker class, multiple choice options included, lower class (*baja*), lower-

middle class (*medio-baja*), middle class (*media*), upper-middle (*medio-alta*) class and upper class (*alta*). Following education and class, respondents were asked to postulate the speaker's profession. This question was left open-ended. Next, a Likert 7 point scale was used again in soliciting judgments for preference of the speaker as a friend, colleague and employee. An example of the format for these questions is shown below in Figure 3.

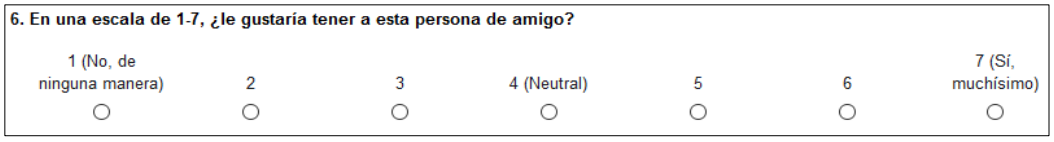


Figure 3: Example of Likert scale rating for relationship preferences.

Lastly, the listener participants were asked whether they liked the way the speaker narrated the story and why, and whether they thought they would get along with the speaker and why. Both of these questions were left open-ended to allow for as much commentary as the respondent wished to provide. An additional question was included with the last two recordings requesting that the participants comment on any particular aspect of the speaker's speech that guided their judgments, and furthermore asking what the respondent thought about the speaker's manner of speech in general.

The very last page of the survey did not include a recording, but rather simply asked the respondents personal background questions to be included in the analysis. These questions were kept brief and fairly general so that the participants would not feel uncomfortable providing their information and submitting their survey. The participants were asked where they were from, if they had always lived in the same region and if not, where else they had lived, whether their parents were from the same region, how old they were and their gender.

3.2.3 Respondents

As Momcilovic (2005) claims the velarized /s/ to be a variable readily associated with young people in Madrid, it was decided to target a younger respondent pool, Spanish university students. In order to disseminate the survey to as many respondents as possible, approximately 2000 professors at various universities throughout Spain were contacted and requested to share the survey link with their students. In this way, the respondents consisted of mainly university students; however, as it was an online survey posted to the internet, other participants completed the survey as well, including professors themselves or acquaintances of the professors/participants. While a large number of participants began the survey without finishing[17], the total number of completed surveys is 386. The limitations for acceptable respondents were that they must be at least 18 years old and must be a Spanish citizen. The 386 participants, 127 males, 246 females and 13 who chose not to provide their gender, included participants from all Autonomous Communities of Spain and while the ages ranged from 18-67, 71.7% of the participants were under the age of 25. The distribution of the origin of participants as well as participant age is presented below in Figure 4 and Figure 5. It should be noted that of those participants that were not from Madrid, 11% were currently living or had lived in Madrid at some time in their lives.

[17] There were a total of 1066 people who opened the survey without completing it. While the majority of these people opened the survey merely to look through it, a total of 172 began the survey, providing responses to some of the questions before eventually leaving the survey incomplete.

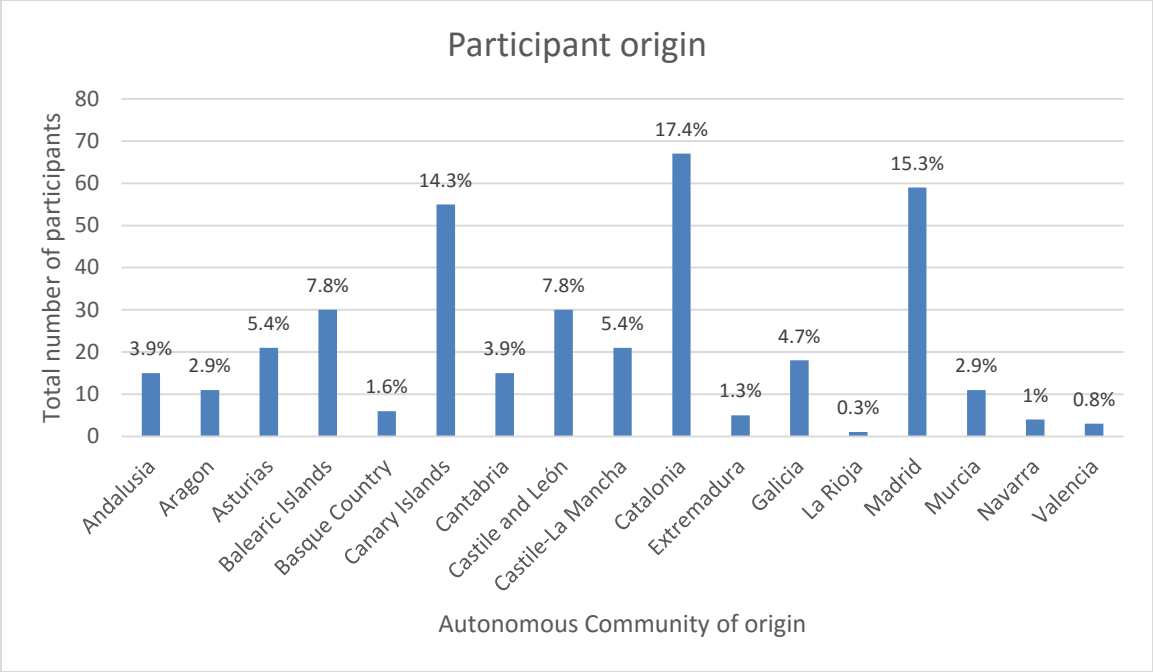


Figure 4: Distribution of listener participant origin. Graph shows total number, percent of total data is included for reference.

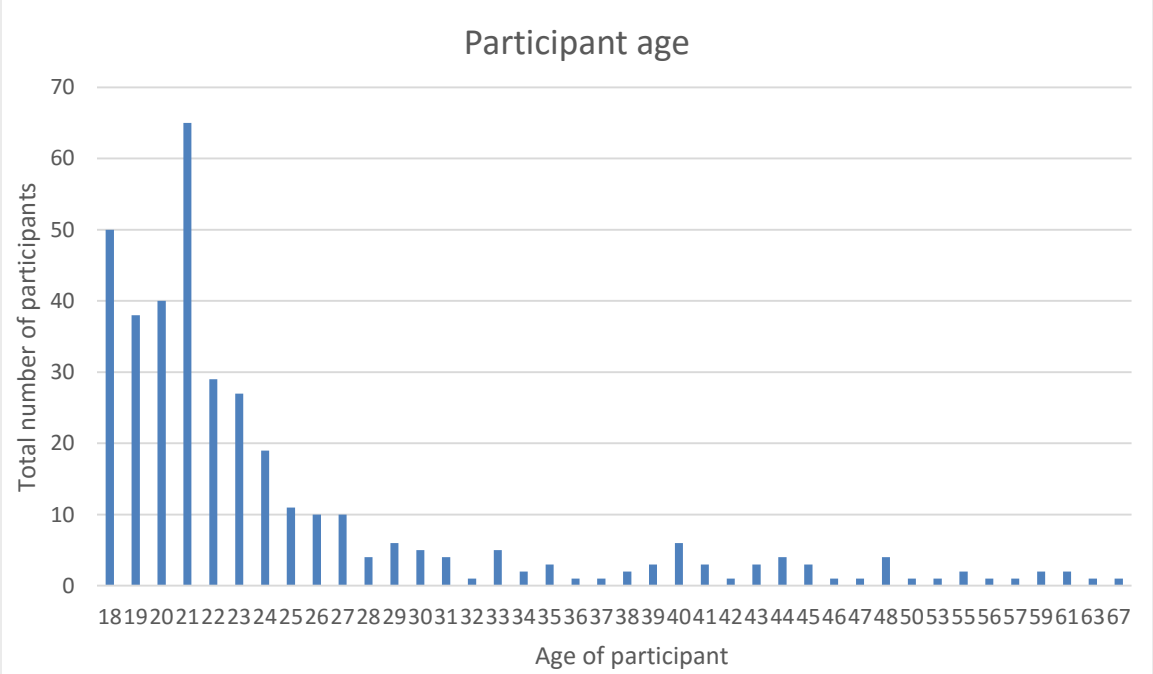


Figure 5: Distribution of listener participant age.

3.2.4 Data analysis

Once the surveys were collected, the data was analyzed through various approaches including statistical analysis, qualitative analysis and the use of visual tools such as tag clouds. The statistical analyses were run through the software *R*, and the two types of analyses run included linear and logistic regressions (Bates, Maechler, Bolerk & Walker, 2015), controlling for the effects of *participant* and *speaker*. These two groups were included in the models, as each participant had more than one observation per speaker (as is the very nature of the matched guise technique). A linear mixed model was used for the numerical variables, such as the semantic differential scale and Likert scale ratings, while a generalized linear mixed model using the binomial family and logit link was utilized in the analysis of the categorical variables, such as speaker place of origin, education level, class and preference for the speaker's narration. In order to carry out the latter type of analysis, the variables had to be binary, and for this reason, for speaker origin, the first test run simply asked whether the respondent thought the speaker was from Madrid or not. Next, each multiple choice answer provided by the participants was compared to Madrid in individual tests; for example, is the speaker more likely to be thought from Castile-La Mancha or Madrid? Likewise, for the statistical analysis of perceived education level, each level of education was compared to another (e.g., is the speaker more likely to be thought to have a primary school level or secondary school level?), and the same was done for class (e.g., is the speaker more likely to be considered lower class or lower-middle class?).

Because several statistical tests were run on the language attitudes data, the validity of the significant findings was compromised, and for this reason, a Bonferroni correction was applied to all language attitude results obtained through statistical analyses. The Bonferroni adjustment is an extremely conservative method for addressing the multiple testing problem in which the desired significance level, in this case 0.05, is divided by the

number of tests run (Baayen, 2008). For the language attitudes data, the Bonferroni correction was applied to the results by category of dependence; i.e., for the category of speaker origin, the corrected significance level was p=0.005, for personality and character p=0.00416, for education level p=0.0166, for class p=0.0125 and for personal and professional relationship preference, p=0.0166. All other categories of dependence were binary (e.g., *did you like how the story was told? Yes or no*) and thus only one test was run and no correction was applied, leaving the accepted significance level at the standard p=0.05. The results for the language attitudes data are presented in detail in the following section.

3.3 GENERAL RESULTS

In this section, the results of a general analysis of the data will be presented. First we will examine whether the nonstandard velarized variant is indeed associated with Madrid, followed by a study of the judgments listeners make regarding personal attributes of the speaker according to the /s/ variant used. Next, the associations between the /s/ variants and different levels of education and socioeconomic class are explored, followed by a study of the different professions ascribed to the speakers of each variant. Lastly, after an analysis of the variable's effect on listeners' preferences for personal and professional relationships with each speaker, we will look at whether the listeners liked the speakers and their stories, and what in particular about their manner of speaking caught their attention. A brief summary of the results will follow this section.

3.3.1 Velarized /s/: A Madrileño variant?

The first question on each new page of the survey (ie: the set of questions for each speaker guise) presented an inquiry of speaker origin. This question was multiple choice, and among the possible answers were included all of the Autonomous Communities as well as '*the person is not from Spain'*, '*I don't know'* and '*other'* with a write-in option. When standard /s/ was used the top responses for place of origin were Madrid (25%), Castile and León (19%), Castile- La Mancha (7%), Asturias (6%), Aragon (5%), Cantabria (5%) and Valencia (5%). When velarized /s/ was used the top responses for place of origin for the speaker guises were Madrid (38%), Castile-La Mancha (17%), Extremadura (8%), Murcia (7%), Andalusia (6%) and Castile and León (5%). The distribution for these top responses is provided below in Figure 6, showing the number of responses for each Autonomous Community[18], alongside a map of the different Communities of Spain in Figure 7 for reader reference. As can be seen in Figure 6, nonstandard /s/ does in fact help listeners to identify the speakers as Madrileños, the effect of nonstandard /s/ significant at the highest level, $p \leq 0.001$. A generalized linear mixed model using the binomial family and logit link was used in the analysis, and as the nature of this model is to compare two categorical items, the options included in the model were *Yes Madrileño* or *Not Madrileño*. The model found the odds of a speaker correctly being identified as Madrileño to increase by 87% when the nonstandard variant is used (β=.6249, SE= .1145, z= 5.459 $p \leq 0.001$).

Next, several more analyses were run, keeping Madrid a constant factor as the point of comparison and substituting each of the other top nine Autonomous Communities into the binomial analysis. The variable plays a significant, although varying, role in all cases except Castile-La Mancha. Interestingly, in this case nonstandard /s/ does not have a

[18] The results show the top ten regions (over 35 different answers were provided) from a total of 772 responses. This total is made up of 2 speakers of each variant in both version A (153*2) and version B (233*2) of the survey.

significant effect at all in the decision of whether a speaker is identified as Madrileño or Manchego. Indeed, velarized /s/ appears to be associated with both regions: A separate analysis of whether /s/ > [x] marks a Castile-La Mancha origin or not showed that a listener was 2.69 times more likely to identify a speaker as Manchego with velarized /s/ when compared to standard /s/ (β= .99, SE= .1753, z= 5.647, $p \leq 0.001$).

For all other regions, the role that nonstandard /s/ plays in speaker identification seems to be divided between the Northern regions and those more Southern[19]. When compared to the results for Aragon, Asturias, Cantabria, Castile and León and Valencia, velarized /s/ significantly increases the odds of a speaker being identified as Madrileño. When compared to the Aragon data, a velarized /s/ speaker is 6.67 times more likely to be considered Madrileño (β= 1.8982, SE= .4002, z=4.743, $p \leq 0.001$), for Asturias the odds raise to 7.17 (β= 1.9693, SE= .4245, z=4.639, $p \leq 0.001$), and for Cantabria 7.7 (β= 2.0407, SE= .4243, z=4.809, $p \leq 0.001$). The odds lower quite a bit for Madrid's closest northern neighbor, Castile and León, to 1.8; nevertheless, even the region with which standard /s/ Madrileño speakers are most often confused (see Figure 6) boasts a significant effect at the 0.001 level in velarized /s/ making a speaker 80% more likely to be named as Madrileño than Castellanoleonés (β= 1.8040, SE= .2062, z=8749, $p \leq 0.001$).

The Valencian Community can be considered both a northern and southern neighbor, as part of the region lies north of Madrid, another south and the middle region sharing the same latitude as Madrid. This is reflected in the influence nonstandard /s/ holds in recognizing the speaker as Madrileño: when compared to Valencia, unlike the southern regions, a velarized /s/ *does* significantly help in identifying a Madrileño; however, it shows a smaller effect than the northern regions discussed above, a nonstandard /s/ making

[19] See map in
Figure 7. Map of Autonomous Communities in Spain

a speaker 48% more likely to be classified as Madrileño (β= -.8512, SE= .2841, z= -2.997, p=0.0027), rather than Valenciano.

As for Madrid compared to the southern regions, those regions that are home to aspirated /s/ (Hualde, 2005; Lipski, 1986; Rodríguez-Pineda, 1994; Schwegler & Kempff, 2007), nonstandard velarized /s/ actually deters from identifying a Madrileño. Although Southern Spain is indeed the region associated with nonstandard /s/, it is surprising that even the velarized variant raises this association among respondents. The odds for Madrid versus Andalusia are 1.86 more times in Andalusia's favor, a velarized variant making the respondent 86% more likely to choose Andalusia over Madrid for the speaker's origin (β= -2.0005, SE= .4930, z= -4.058, $p \leq 0.001$). The odds with velarized /s/ raise even more in Extremadura's favor at 2.24 (β= .8083, SE= .2797, z= 2.89, p= 0.0039), and most strongly with Murcia, a velarized /s/ speaker being 5.01 times more likely to be considered Murciano rather than Madrileño (β= 1.6115, SE= .3927, z= 4.104, $p \leq 0.001$).

In general, the results show standard /s/ to be associated with the North and the nonstandard variant with the South of Spain, as we know to be the case (Hualde, 2005; Lipski, 1986; Rodríguez-Pineda, 1994; Schwegler & Kempff, 2007). Madrid, situated right in the middle, appears to be recognizable to listeners with both standard and velarized /s/, the latter, however, significantly helping the listeners to correctly identify a Madrileño. While the effect of nonstandard /s/ on correctly identifying a Madrileño is significant at the highest level, this effect is not so overwhelming that the majority of respondents immediately identify the speaker as Madrileño. In section 3.5.2 we will look at this more in detail, showing that the origin of the *respondents* plays an important role in their ability to identify a Madrileño. Here we will see that velarized /s/ makes a striking difference in the identification of speaker origin for participants from certain Autonomous

Communities, while almost hindering the identification of a speaker as Madrileño for those respondents from others.

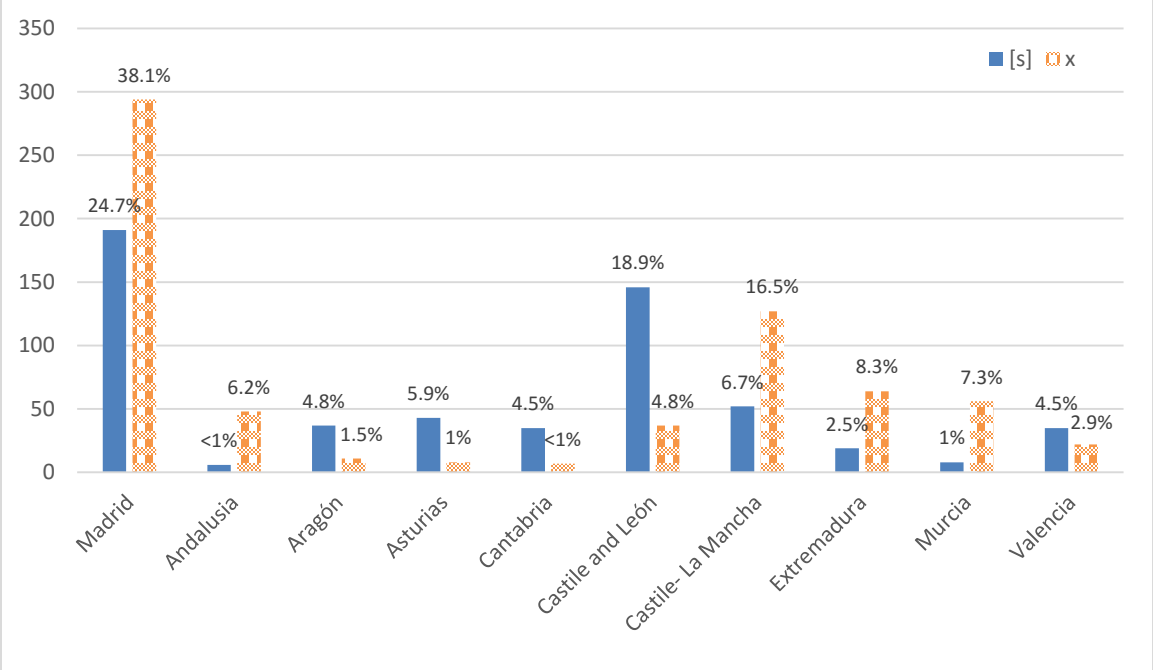


Figure 6. Where is the speaker from? Total number of responses shown in graph, total percentage of all data is included on graph for reference

Figure 7. Map of Autonomous Communities in Spain[20]

[20] Map taken from http://mapless13.rssing.com/chan-13681469/all_p1.html

3.3.2 Personal characteristics

Following an assessment of speaker origin, participants were asked to make several judgments regarding personal characteristics of each speaker. These judgments were requested in the form of both semantic differential scales and Likert scale ratings. The results are presented below, beginning with the former.

3.3.2.1 Semantic differential scales

Respondents were first asked to use semantic differential scales in judging the degree to which the following adjectives applied to each speaker: Intelligent/dumb (*inteligente/tonto*), lazy/hardworking (*perezoso/trabajador),* kind/harsh (*majo/raspa*[21]*),* fun/boring (*divertido/aburrido*)*,* nice/mean (*simpático/antipático*)*,* cold/loving (*seco/cariñoso*)*,* insecure/secure (*inseguro/seguro*) and good person/ bad person (*buena persona/mala persona*). A linear mixed-effects model was used in the analysis of this data in which *every single* pair of adjectives presented to the respondent was found to be significantly conditioned, at the highest level, by the /s/ variant the speaker was using[22]. A Madrileño speaker with standard /s/ was considered to be more intelligent, hard-working, kinder, more fun, nicer, more loving, more secure and an overall better person than speakers with nonstandard /s/. This can be seen in the distribution of ratings shown in Figures 8-15 where it can be clearly appreciated that both variants present similar curves, the velarized /s/, however, always falling closer to the negative word of the pair. Although

[21] Recall that *raspa* is not actually an adjective, but rather is the third person singular form of the verb "raspar". It was used in this case because native Spaniards offered this as the best "opposite" description for *majo*.

[22] Intelligent/Dumb (β=0.6538, SE= 0.04638, t(1091)=14.10, $p \leq 0.001$); Lazy/Hardworking (β= -0.7214, SE= 0.05489, t(1102.8)= -13.14, $p \leq 0.001$); Kind/Harsh(β=0.1869, SE= 0.05375, t(1107)= 3.477, $p \leq 0.001$); Fun/Boring (β=0.1758, SE= 0.05312, t(1096)=3.309, $p \leq 0.001$); Nice/Mean (β=0.2278, SE=0.04716, t(1102)= 4.38, $p \leq 0.001$); Cold/Loving (β= -0.42922, SE= 0.05551, t(1095)= -7.732, $p \leq 0.001$); Insecure/Secure (β= -0.33414, SE= 0.05448, t(1101.8)= -6.133, $p \leq 0.001$); Good person/Bad person (β= 0.2035, SE= 0.04155, t(1093)=4.897, $p \leq 0.001$)

the effect of the variant on every pair of words presented is significant at the .001 level, one can perceive an important difference in the distribution of adjectives that address intellectual competence and work ethic versus those that are more affective in nature. The pair of *inteligente/tonto* and *perezoso/trabajador* present quite notable differences between [s] and [x], whereas the pairs of *majo/raspa*, *divertido/aburrido* and *simpatico/antipático* present very similar curves in their ratings between speakers using [s] and [x]. *Seco/cariñoso* seems to be an exception to this trend with more noticeable differences between the variables. This pair presents the arguably most affective adjectives of all the pairs, and thus it is interesting to note that here the variable's influence seems more pronounced. In sections 3.4 and 3.5.1 we will look more closely at these adjectives according to speaker sex as well as the gender of the respondents themselves in order to better understand the judgments made and the role the variable plays in these perceptions. In addition, we will see in 3.5.2 that participant origin also influences how the variant is perceived in relation to particular adjectives.

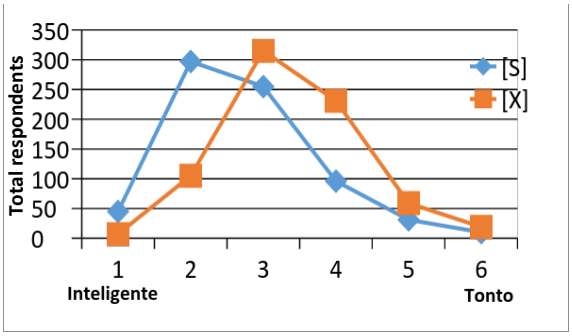


Figure 8: Intelligent/Dumb ratings

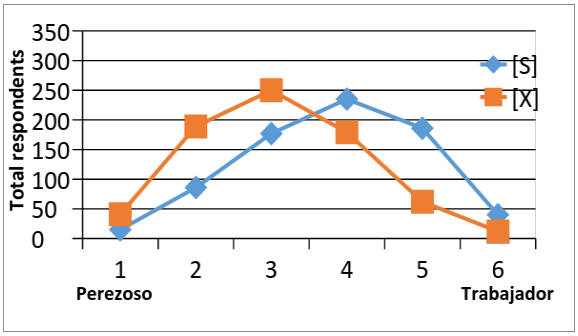


Figure 9: Lazy/Hardworking ratings

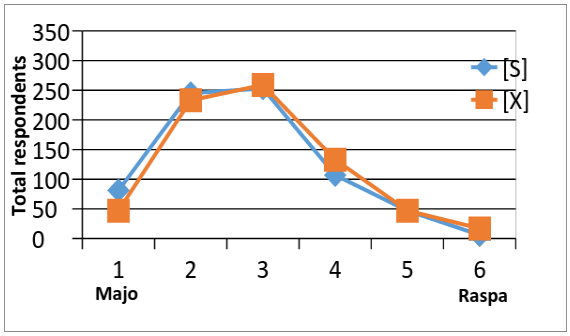


Figure 10: Kind/ Harsh ratings

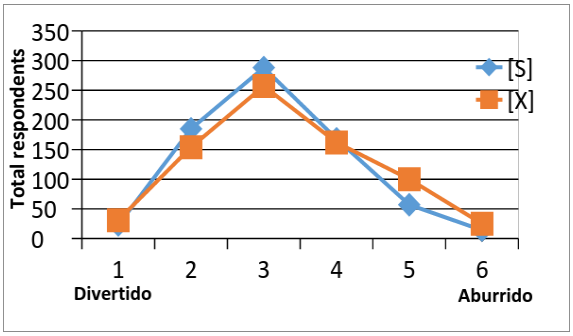


Figure 11: Fun/Boring ratings

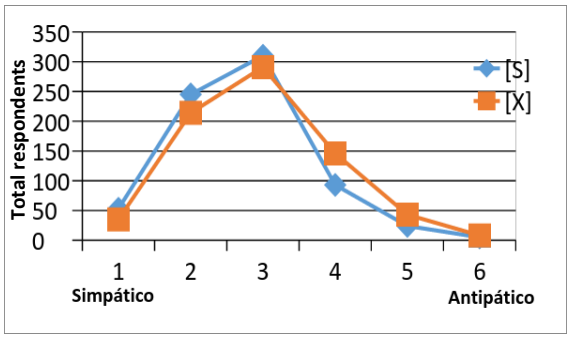


Figure 12: Nice/Mean ratings

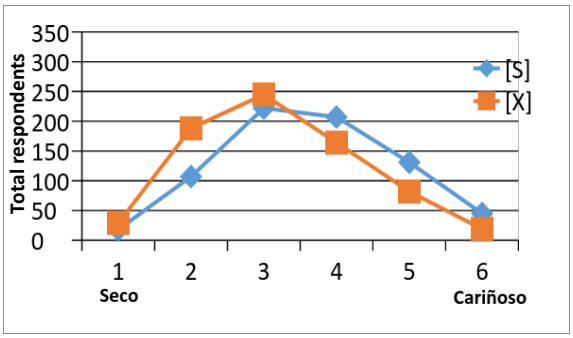


Figure 13: Cold/Loving ratings

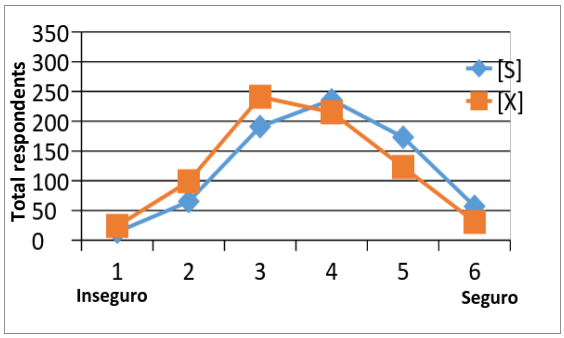


Figure 14: Insecure/Secure ratings

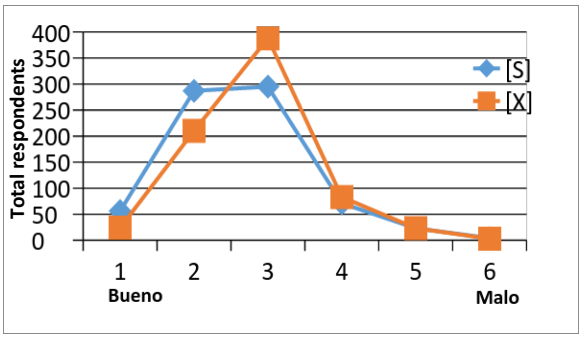


Figure 15: Good person/Bad person ratings

3.3.2.2 Likert scale adjectives

Following the semantic pairs, participants were asked to rate on a scale of 1-7 the extent to which they thought the adjectives funny (*gracioso),* serious *(serio),* reliable (*fiable*) and tough/bad guy (*malote*) each described the speaker. These adjectives were presented in this

format because, unlike those discussed above, they did not have a clear opposite adjective. Furthermore, in order to know the particular meaning that the respondent understood by the adjectives, they were asked to provide a synonym for the adjective. The different interpretations of these adjectives can be seen in the responses provided as synonyms. These possibly ambiguous adjectives were included in the study because they were among those most frequently mentioned in a pilot study that elicited descriptors. Using this format was a best attempt to neutralize the possibility of ambiguity by requesting the participants' interpretation via a synonym.

The first adjective, *gracioso*, was not significantly affected by the /s/ variable. This is the first adjective we have seen thus far that is *not* significantly influenced by the use of velarized /s/; quite a different result from those pairs presented above which were all significant at the highest level. The six most frequent synonyms offered for *gracioso* included *divertido* (fun/funny) with 116 mentions, *simpático* (nice/cute/funny) with 95, *soso* (bland/dull) with 72, *normal* (normal) with 48, *seco* (dry/cold) with 40 and *chistoso* (funny) with 36. Some of these adjectives overlap in meaning, some may or may not overlap given the interpretation and some are antonyms. It is uncertain from the responses if the participants that provided antonyms were offering a synonym for their particular rating of the degree to which the speaker was *gracioso* or if they simply misunderstood the instructions; the correlation is unclear. In this way, it was difficult to group the synonyms according to interpreted meaning in an accurate fashion; therefore, a linear mixed-effects model was run on the results as a whole for *gracioso*, followed by more exploratory testing of the data in subgroups according to each of the top six synonyms provided. Of those aforementioned adjectives, there is one subgroup which did in fact show a significant /s/ variable effect, that of a *divertido* interpretation. For those participants who considered

gracioso to mean *divertido*, the velarized /s/ led to judging the speakers as less *gracioso* (β= -0.6783, SE= 0.2802, t(94.82)= -2.421, p= 0.0174)[23].

Unlike *gracioso*, and much like all the adjective pairs of semantic scale questions, the next three adjectives included in the Likert scale questions were significant at the highest level. For the first two, *serio* (serious) and *fiable* (reliable), a velarized /s/ speaker caused the participants' rating to go down, the nonstandard /s/ speaker guise seen as less serious and less reliable (β= -0.2684, SE= 0.0797, t(1107.4)= -3.369, p≤0.001 ; β= -0.7462, SE= 0.0634, t(1098.2)= -11.77, p≤0.001). In looking more closely at the different interpretations of the adjectives, the top six most frequent synonyms offered for *serio* included *formal* (formal/serious) with 93 mentions, *seco* (dry/cold) with 69, *normal* with 37, *responsable* (responsible) with 37, *alegre* (happy/cheerful) with 36 and *divertido* (fun/funny) with 24. Here we can see two different, and somewhat conflicting in desirability, types of interpretations of *serio*, those speaking more to the person's disposition and those related more to ethics (moral or work). Upon exploring the /s/ variable effect on subgroups according to synonyms offered, *responsable* is the only group where a significant variable effect shows, despite the significant effect the /s/ variable seems to have on judgments of *serio* as a whole. Within the subgroup of *serious* interpreted as *responsible*, a velarized /s/ speaker is considered less serious (β = -1.4537, SE= 0.54, t(34.86)= -2.692, p= 0.0108). As for *fiable*, the six most frequently mentioned synonyms include *honesto* (honest) with a frequency of 64, *seguro* (sure/dependable) with 47, *de confianza* (reliable/trustworthy) with 43, *confiable* (dependable/trustworthy) with 37, *normal* (normal) with 34 and *leal* (loyal/trustworthy) with 30. Here the various interpretations of *fiable* vacillate and overlap between the meanings of *honest*, *dependable*

[23] As the synonym analysis was more exploratory in nature, and as this sometimes included a very small subgroup of data, the Bonferroni adjustment for significance was not employed here as it is for the rest of the statistical analysis for all the results presented in this chapter.

and *trustworthy*. In examining each of these interpretations as subgroups, *fiable* as *honesto* (β= -0.8122, SE= 0.2571, t(32.33)= -3.159, p=0.0034), as *de confianza* (β= -0.9285, SE= 0.3343, t(17.534)= -2.778, p= 0.0126) and as *leal* (β=-0.9298, SE= 0.3974, t(15.267)= -2.34, p= 0.0333) all showed a significant effect from the /s/ variable in which a velarized /s/ speaker guise was seen as less *fiable.*

The last adjective included in these Likert scale character judgments was *malote* (tough/bad guy). As a whole, the /s/ variable has a highly significant effect on how *malote* the speaker is judged to be by the participants, a velarized /s/ raising the degree to which a speaker guise is considered to be *malote* (β= 0.9385, SE= 0.0801, t(1092)= 11.69, $p \leq 0.001$). The six most frequent synonyms provided for *malote* included *bueno* (good) with a frequency of 95, *normal* with 42, *malvado* (wicked/tough) with 29, *chulo* (cocky/ cool) with 26, *buena persona* (good person) with 23 and *bondadoso* (kind/ warm-hearted) with 21. Here it is a bit more obvious that several participants offered a synonym for their particular rating of the degree to which they considered the speaker *malote*. Furthermore, the ambiguous interpretation of *malote* as a negative delinquent-like characteristic versus a more covertly prestigious "tough but cool" can be seen here. Despite the highly significant effect the /s/ variable has on judgments of *malote* as a whole, when separating the synonym interpretations into subgroups, only *chulo* and *buena persona* seem to be significantly affected by the variable, a velarized /s/ making the speaker both more *chulo* (β= 1.1833, SE=0.5323, t(24)= 2.223, p = 0.0359), as we would expect, and more of a *buena persona* (β=1.2832, SE= 0.5846, t(12.266)= 2.195, p= 0.0489), which is indeed a surprising result. The validity of this last surprising result in which velarized /s/ actually *helps* the speaker to be considered a good person is called into question with such a low level of significance and the small number of the sample in the subgroup. In addition, these results are not subjected to the Bonferroni significance correction applied to all other

analyses presented in this chapter given the exploratory nature of the synonym analysis. Even with this strict correction applied to the data in other sections[24], we will see echoes of this result in which velarized /s/ seems to have positive effect and make certain speakers more likable.

3.3.3 Education and Class

Next, participants were asked to postulate the education level followed by socio-economic class of the speakers in the four guises. As can be seen in the graphs presented in Figures 16 and 17, the results are exactly as we would expect for a nonstandard variant: velarized /s/ is associated with lower class and lower education. As within the personal characteristics data, the results for standard and nonstandard /s/ present the same tendencies, as represented by the same bell curves in Figure 16 and Figure 17, however, the velarized /s/ curve is merely shifted to the left, occupying a much larger number of responses for a level of elementary education, peaking at secondary school, lowering at university and occupying minimal responses for graduate school. Standard /s/ responses, in contrast, are minimal at the elementary school level, increase with secondary school and peak at the university level. For graduate school, the number of responses lowers again, although with a much higher response rate than velarized /s/. “Technical schooling”, which shows an almost equal number of responses between the two /s/ variants, is included at the end of the graph but should not be considered as part of the continuum of schooling level, as in Spain this could fall anywhere between primary school and the university, requiring having finished elementary school, and perhaps some, but not necessarily all, secondary schooling.

[24] The Bonferroni correction applied for personal characteristic judgments in this chapter adjusts the accepted significance level from 0.05 to 0.00416.

As with the speaker origin question, the possible answers for this question were categorical and thus a generalized linear mixed model using the binomial family and logit link was run, comparing first primary school to secondary school, followed by secondary to university and finally university to graduate school. The first comparison, primary to secondary school judgments, did not produce any significant results, mostly likely due to the very small sample size, particularly for primary school, standard /s/ only receiving 13 responses, compared to 134 for secondary and nonstandard /s/ 50 compared to 380. The results for a comparison between secondary and university level responses show the nonstandard variant to have an extremely significant effect (β= -1.9259, SE= .1541, z= -12.502, $p \leq 0.001$) on how a speaker's education level is perceived: a velarized /s/ speaker is 85% more likely to be attributed a level of secondary education rather than university. The analysis of odds between undergraduate versus graduate classification according to variant found a nonstandard /s/ speaker 87% more likely to be considered an undergraduate; however, at p= 0.0202 (β= .6251, SE= .2691, z=2.323), this result does not reach the significance level established for the education group by the Bonferroni correction[25], and thus cannot be considered statistically significant.

Evaluation of speakers' social class produces similar results to those of education, velarized /s/ occupying more responses at the bottom of the scale, lower class, with the top answers divided among lower-middle class and middle class. Standard /s/ has minimal representation among responses of lower or lower-middle class, the top responses occupying middle and upper-middle class. Neither of the variants had a notable representation in upper class. Once again, a generalized linear mixed model utilizing the binomial family and logit link was used in the analysis. Like in the education analysis, the

[25] The significance level established for education after the Bonferroni correction is p=0.0166.

lowest two groups do not present a significant difference, again likely due to the small sample number, standard /s/ only receiving five elections of lower class and nonstandard /s/ 36, compared to 66 and 245 for lower-middle class. The role the variable played in the difference between the next group up, a classification of lower-middle class versus middle class, was found to be extremely significant (β= 1.5561, SE= 0.1675, z= 9.291, p≤0.001), the velarized /s/ increasing the odds of being classified as lower-middle class rather than middle class by 4.76 times. The following groups, middle and upper-middle class, present an equally significant variable effect (β= -1.3610, SE= .1844, z= -7.380, p≤0.001), nonstandard /s/ making a speaker 74% more likely to be placed in middle class rather than upper-middle. The last grouping, like the first, comprised a very small sample, and for this reason the model was unable to run.

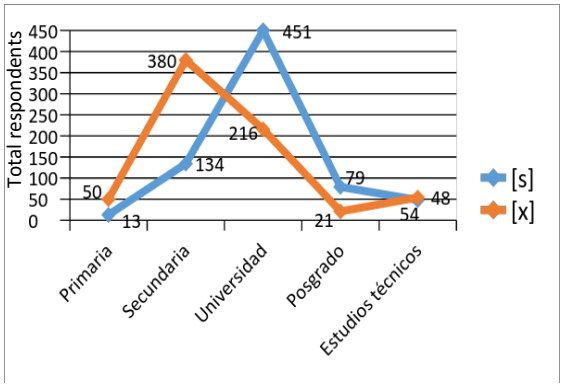


Figure 16: Education ratings of speakers

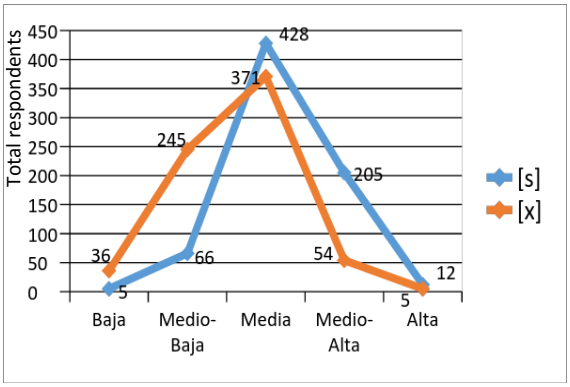


Figure 17: Class ratings of figures

3.3.4 Profession

Next, participants were asked to postulate the profession of each speaker they heard. This question was open-ended, and some participants wrote in several options while others chose to leave this question blank. Given the structure of this question, statistical analysis

was not possible. The visualization tool of tag clouds were used in order to visualize the frequency with which a particular profession was mentioned. Tag clouds depict higher frequency words with larger and bolder letters while showing smaller frequency words with smaller and lighter colored font. Only those words that were mentioned at least three times are included in the tag clouds presented here. Below are included the tag clouds of the original Spanish words; tag clouds with the English translations can be found in Appendix C. For the Spanish clouds, words such as *administrativo, administrativa, administración* and phrases such as *trabaja en administración* were all collapsed into one category expressing both the masculine and feminine forms (i.e.:*administrativo-a*), while other similar words and phrases such as *profesor, maestro* and *educador* were not collapsed given that meanings may or may not overlap. After collapsing certain words into one profession, as explained above, a total of 170 different professions remained for standard /s/ speaker guises[26] and 139 for velarized /s/ guises[27]. Once the professions that were not mentioned at least three times were removed, the totals for standard /s/ and velarized /s/ lowered to 48 and 50, respectively. The frequency of mentions for these last totals are visually represented in the tag clouds provided below in Figures 18 and 19.

As can be seen below in Figures 18 and 19, just as one would expect, and reflective of the education and class associations of each variant, standard /s/ speakers are ascribed more professional occupations that require higher levels of education. The professions that are most notable for standard /s/ speakers are those of *profesor(a)* as well as *estudiante*. *Profesor(a)* is by far the profession most often mentioned with a total of 63 mentions, in addition to the 18 mentions of various levels of *maestro(a)*, 8 for *educador(a)* and its respective levels, and 24 more for the various *profesor*(a) positions specifying level. In the

[26] This total comes from a total of 570 responses provided by participants.
[27] This total comes from a total of 562 responses provided by participants.

same way, *estudiante* received 54 mentions while the more specific university student presented 20 additional mentions. Clearly, standard /s/ use here is associated with education. Further professions with mention frequencies of 20 or higher for standard /s/ include an administrative position (31), lawyer (22), sales assistant (21), businessman/woman (21), computer programmer (21) and engineer (22).

Velarized /s/ speakers, in contrast, are frequently ascribed more low-level positions and professions that do not require much education. The most notable profession is *dependiente*, or sales assistant, with 63 mentions. While *dependiente* was also mentioned several times with standard /s/, it more than triples in frequency with nonstandard /s/. Likewise *estudiante* and *administrativo(a)* are high-frequency professions for both standard and velarized /s/, however, the distribution is distinct, this time lowering for student (43) and an administrative job (26). Additional high-frequency professions for velarized /s/ were waiter/waitress (22), supermarket employee (25) and mechanic (28). Furthermore, 22 participants thought the velarized /s/ speaker guise to be unemployed while 24 participants said they were unsure of what the speaker's profession might be. This is in comparison to 7 unemployed standard /s/ speakers and 15 respondents that were unsure of a standard /s/ speaker's profession[28].

Less frequent mentions of certain professions are also telling, as a notable difference exists between these particular professions when associated with each variant. Standard /s/ speakers were postulated to be architects, bankers, interns, scientists, managers, bosses, doctors and journalists, while velarized /s/ speakers were predicted to be

[28] The reader should note that the frequency of mentions for *en paro,* or unemployed, may have been conditioned in part by the socio-political and economic situation in the country at the time the survey was administered: Spain was at the height of its economic crisis and the unemployment rate rose to about 26%. (Unemployment rates found at: https://www.google.com/publicdata/explore?ds=z8o7pt6rd5uqa6_&met_y=unemployment_rate&idim=country:es:el:it&hl=en&dl=en)

masons, street cleaners, trash collectors, cashiers, construction workers, electricians, warehouse stockers, factory workers, plumbers, cleaners, hairdressers, receptionists, delivery workers and salesmen/women. The two variants are ascribed to certain shared professions, such as lawyers, engineers, professions in trade, bank tellers and government workers, among others; however, the professions which require more education are more frequent among standard /s/ speakers. Interestingly, there are certain professions that were only considered male with standard /s/, such as *engineer*, however these same professions were mentioned for women when the velarized /s/ variant was used. We will further explore the differences in professions ascribed to particular genders with each variant in section 3.4.

Figure 18: Professions ascribed to [s] speakers

Figure 19: Professions ascribed to [x] speakers

3.3.5 Preference for personal and professional relationships

Next, participants were asked about their preference for personal and professional relationships with the speakers represented in the guises. Responses to all three questions, whether they would like to have the speaker as a friend, a colleague, or whether they would hire them, were significant, although colleague and hire had stronger statistical significance (β= -0.3248, SE= 0.1090, t= -2.98, df= 355.8, p=0.0031; β= -0.7188, SE= 0.1155, t=-6.224, df= 358.6, $p \leq 0.001$; β= -0.8386, SE= 0.1125, t=-6.457, df= 355.9, $p \leq 0.001$). The distribution for these responses is shown in Figures 20-22. This distribution presents similar trends to that of the semantic differential scale adjectives, in that one can appreciate a difference in the distribution of ratings in a more affective relationship, friendship, than one of competence, that is, the working relationship of either a colleague or employee.

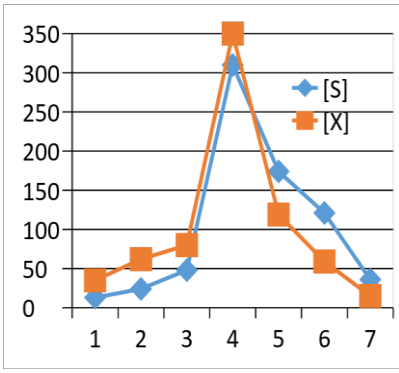


Figure 20: Preference for "friend"

1= not at all, 7= yes, absolutely

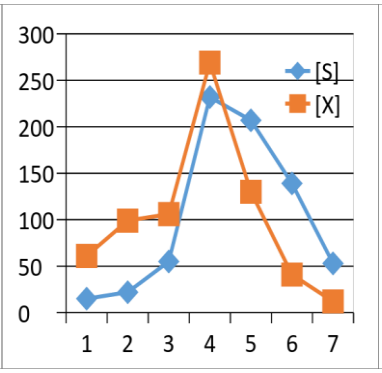


Figure 21: Preference for "colleague"

1= not at all, 7= yes, absolutely

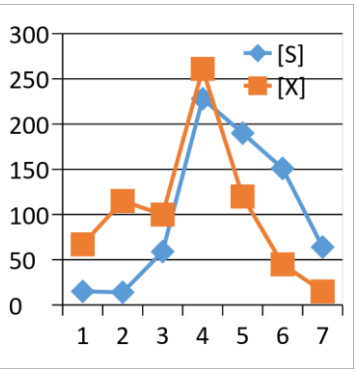


Figure 22: Preference for "employee"

1= not at all, 7= yes, absolutely

3.3.6 Did you like how the story was told? Do you think you would get along with the speaker?

The next two questions posed to the listeners were left open, like the profession question and unlike the drop-down multiple choice options or semantic/Likert scales response options in previous questions. First, participants were asked whether they liked how the story was told. As can be seen in Figure 23**,** the standard variant is much more likely to receive a positive answer than its nonstandard counterpart: 48.7% of the time standard /s/ received a 'yes', while 23.2% of the time it received a 'no'. The other 28.1% of responses were either left blank or received a response of 'yes and no'[29]. The distribution of responses for nonstandard /s/ is nearly the *exact opposite*, 'yes' 23.6% of the time and 'no' 49.2% of the time. A generalized linear mixed model utilizing the binomial family and logit link confirmed the statistical significance of these very clear tendencies, showing at the .001

[29] Responses were coded as 'yes and no' for both "Did you like how the story was told?" and "Do you think you would get along with the speaker?" when (1) they included both positive and negative responses in one, e.g.: *"Puede que si [sic] porque parece una persona sería [sic] cuando tiene que serlo, y no, porque parece que es un poco arisco, frío."*, (2) they responded "yes" but followed with an explanation that conveyed a negative response without directly saying "no",e.g.: *"Si [sic], pero lo justo nada de una relación muy fuerte."* or *"Si [sic] pero creo que le ha faltado algo"* or (3) a neutral response, e.g.: *"Me ha resultado indiferente, no me ha llamado la atención."*

significance level that the odds of the listeners liking the story are decreased by 79% when the speaker is using velarized /s/ (β= -1.544, SE=.1420, z= -10.870, p≤0.001).

As for whether they thought they would get along with the speaker, respondents were more hesitant to give a negative response, both variants receiving the majority of their responses as the positive "yes". The respondents still, however, were more likely to say 'yes' if the speaker used standard /s/ as opposed to velarized /s/. Indeed, 51.2% of the time, respondents thought that they would get along with a speaker of standard /s/, and only 13.2% of the time did they say 'no'. In contrast, only 34.8% of respondents thought they would get along with speakers with a velarized /s/ while 24.5% felt they would not get along with the speaker, almost double the number of negative responses given speakers of standard /s/. Finally, there is little difference in the answers that were either left blank or were both positive and negative, 35.6% for [s] and 40.7% for [x]. Once again a generalized linear mixed model confirms the variable's effect on whether a respondent believed they would get along with the speaker as statistically significant at the highest level, velarized /s/ decreasing the odds of a listener proclaiming that they would indeed get along with the speaker by 67% (β= -1.1236, SE= .1639, z= -6.856, p≤0.001).

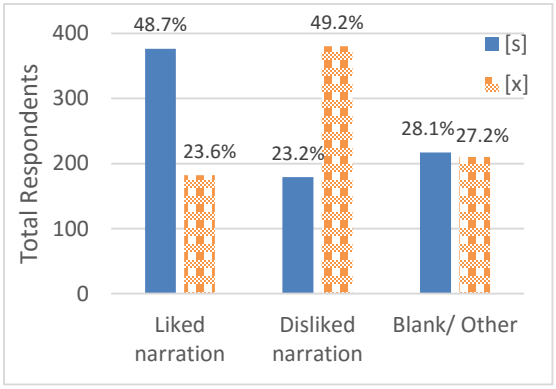


Figure 23: Distribution of liking the story

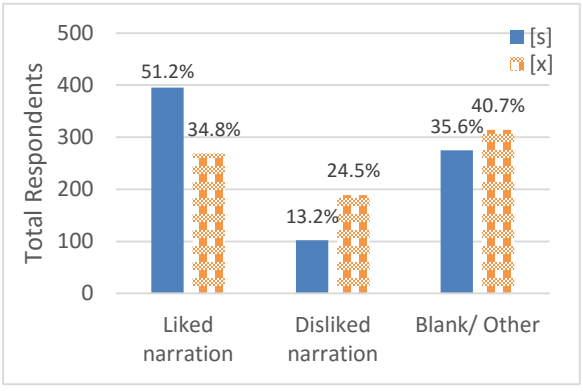


Figure 24: Distribution of getting along with the speaker

3.3.7 Did you notice anything about this person's speech in particular that influenced the judgments you made?

Finally, participants were asked about what they had noticed about the speaker's manner of speech. This question was only asked of the last two recordings so that respondents would not be primed or influenced throughout the entire set of recordings. It was thought that if participants were asked to pinpoint particular aspects of speech starting with the first recording, the listeners would begin to directly pay attention to or listen for specific characteristics. For this reason, this question was only included in the last two recording question sets, first with standard /s/ followed by velarized /s/. The standard /s/ guises elicited many responses highlighting the correctness of the speaker's manner of speech; for instance, "Tiene una manera de hablar correcta" (She has a correct manner of speaking), "Me parece que esta [sic] bien, que es correcta" (I think that it's good, that it's correct), "Me parece muy correcta" (I think it's very correct) or several responses of simply "correcta" (correct). The word *correct*, in fact, is mentioned 33 times in a total of 273 responses. Other frequent remarks include that the accent is neutral (e.g., "Tiene un acento neutral"), not marked (e.g., "No parece que tenga acento marcado") or that the speaker has either no accent (e.g. "No he notado ningún acento destacable") or standard Spanish (e.g.,"Me parece que habla un español bastante estándar"). When an accent is mentioned, several references to the North of Spain are made, claiming either the correctness or closed vowels for such a judgment. As the latter was mentioned by various participants for both standard /s/ speaker guises[30], it warrants further study in the future. Lastly, respondents also mentioned with frequency aspects of the storytelling such intonation, tone, pauses, vocalization and aspects of the story content, such as use of diminutives.

[30] Although each participant was only asked about particular speech traits of one standard /s/ and one velarized /s/ speaker, there were two versions of the survey circulated, each with a different set of speakers. In this way, the data collected included respondent observations for two different standard /s/ speakers as well as two velarized /s/ speakers.

For the velarized /s/ guises, either the aspirated /s/ or a reference to <s> pronounced as <g> or <j> is mentioned 94 times out of a total of 255 responses. It is clearly a very salient characteristic for the respondents. Examples include responses such as "Pronuncia una "g" en vez de "s" en palabras como: buscar, búsqueda o bosque" (He pronounces a "g" instead of an "s" in words like: *buscar*, *búsqueda* or *bosque*), "Por su leve pronuncación de las "s" como "j" (Because of his slight pronunciation of "s" like "j") and "Las eses en mitad de la palabra eran aspiradas" (The s's in the middle of the word are aspirated). Furthermore, either *Madrid* or *Madrileño* is included 64 times in discussing the speaker's manner of speech; for instance, "parece de madrid *[sic]*" (He seems like he's from Madrid) or "Tiene el tipico *[sic]* deje madrileño" (He has the typical Madrid accent). Of these 64 Madrileño identifications, 23 accompany a discussion of the nonstandard /s/, although similar references to Southern Spain with the nonstandard /s/ observations show that not all participants associate velarized /s/ with Madrid, but rather with the south where nonstandard /s/ prevails. Examples of the former include "Acento Madrileño *[sic]*, en vez de decir es que dice ej que" (Madrileño accent, instead of saying *es que*, he says *ej que*), "El rasgo más importante es el de aspirar las s como en Madrid "Ejjjque" (The most important trait is aspirating the s's like in Madrid, *"ejjjque"*) and "pienso que puede se *[sic]* madrileña por la aspiración parcial de las eses" (I think she could be Madrileña because of the partial aspiration of the s's). Other examples show that not all speakers make this association between velarized /s/ and Madrid: "Al pronunciar la vocal *[sic]* s, la pronuncia como si fuese una G, por lo que me lleva a pensar que puede ser andaluz" (In pronouncing the vowel s, he pronounces it as if it were a G, which makes me think he could be Andaluz), "Yo creo que es Andaluza porque marca bastante la s" (I think she is Andaluza because she really marks the s) or "Pronuncia bien las S finales pero se le nota algunos rasgos típicos del sur de la peninsula cuando pronuncia las S antecedentes a

algunas consonants" (She pronounces final s's well, but one notes some traits that are typical of the southern part of the peninsula when she pronounces the s's before some consonants).

Unlike the standard /s/ recordings, here only seven participants remarked that they thought the speaker's manner of speech was correct. On the contrary, respondents found the speakers' Spanish to be incorrect ("Un hablar un poco paleto e incorrecto"), that their accents were vulgar ("Tiene un acento un poco vulgar") and that they did not speak Spanish well ("No habla bien el castellano") nor pronounce it well ("No pronuncia bien algunas palabras"). It should be noted that while most descriptors offered for the velarized /s/ speaker with this question were negative, among those 37 positive evaluations of speech patterns were included such examples as "cuenta con cierta gracia" (He tells [the story] with a kind of charm), "Tiene mucho carisma" (He has a lot of charisma), "es muy buena gente" (He's a really good person), "agradable y sincera" (pleasant and sincere), "me gusta como habla" (I like how s/he talks) and "Me parece una manera de hablar muy alegre" (I think it's a really cheerful way to talk).

3.3.8 Summary

The results presented here confirm that velarized /s/ is indeed associated with Madrid and that this nonstandard variant plays a significant role in how a speaker is perceived. We saw that every pair of adjectives in the semantic differential scales were significant at the highest level in the effect the variant had on listener judgments, standard /s/ contributing to speakers being ascribed higher intelligence, stronger work ethic, a kinder, nicer and more loving disposition as well as being thought to be more fun, secure and an overall better person. We were able to appreciate in the distribution of data a stronger influence from the

variant in those characteristics associated with competence as opposed to affective qualities, although the most affective adjective pair seemed to be more susceptible to the variable. We also saw with those characteristics presented in a Likert scale rating format that velarized /s/ speakers were considered less serious and reliable as well as more of a bad/tough guy. The varying interpretations of these adjectives according to their synonyms given call into question the general influence shown by the variable, as sometimes interpretations that were conflicting in desirability were provided. In addition, as we would expect, the variant also plays a role in perceived education level and class, the nonstandard variant associated with a lower education level and class. This finding was reflected in the responses provided regarding possible professions of the speakers, standard /s/ receiving more frequent responses for positions requiring a higher education level and velarized /s/ associated with lower-level professions and manual labor employment. Velarized /s/ also influences a listener's preference for both a personal and professional relationship with a speaker, in this case negatively. Participants prefer standard /s/ speakers as friends, colleagues and employees, although, echoing the semantic differential scale findings, one could see a stronger effect in the professional sphere. In the same way, participants were more likely to say they would not get along with velarized /s/ speakers. Finally, while most participants liked the narration of standard /s/ speakers, they were more likely to dislike the narration of those speakers of nonstandard /s/. These general results will now be broken down by speaker sex as well as respondent demographic information in order to further appreciate the nuances of these results.

3.4 RESULTS ACCORDING TO SPEAKER SEX

While the pilot study for this perception research included only male speakers, the main study included one male and one female speaker in each version of the survey with the hope of discovering the role gender plays in the perception of nonstandard /s/. In order to dissect the data in this way, the previous models used in the analyses for the preceding sections were utilized again, this time considering interactions between speaker sex and the variant[31]. First, a generalized linear mixed model using the binomial family and logit link was used to see if speaker sex had any significant effect on whether a particular variable was associated with Madrid. It was predicted that gender would not affect whether a speaker was identified as Madrileño, and after the Bonferroni correction discarded the only two Spanish communities to show such an interaction[32], this prediction held true.

For the semantic pair adjectives, only two were found to be significantly affected by an interaction between speaker sex and the /s/ variable, *seco/cariñoso* and *inseguro/seguro*. The first pair, *seco/cariñoso*, shows us just how important it is to further dissect the data to consider gender, as the results for the male speakers are actually the *opposite* of what we saw in analyzing the data as a whole: a male speaker using nonstandard /s/ is rated as warmer/more loving than a male speaker using standard /s/ (β_v= -.44409, SE_v= .11007, $t_v(1075.6)$= -4.035, , $p_v \leq 0.001$; β_i= .5435, SE_i = .11052, $t_i(1076.6)$=4.918,

[31] The models were fitted to consider both speaker sex and respondent gender in the models; however, only the results for speaker sex are reported here. The results for respondent gender are presented in section 3.5.1.

[32] These communities included Murcia and Valencia. In judging whether a speaker was from Madrid or Murcia, as compared to women and male standard /s/ speakers, the odds of a velarized /s/ male speaker being classified as Murciano rather than Madrileño increased by 7.8 times (β= 1.999, SE = .8855, z = 2.259, p= 0.0239). The opposite trend was true for a Madrid origin compared with Valencia: When compared to standard /s/ speakers, the odds of a male speaker being identified as Madrileño rather than Valenciano increased by 25% when the velarized variant is used (β_v= -1.6847, SE_v= .4880, z_v= -3.452, $p_v \leq 0.001$; β_i= 1.4009, SE_i= .6128, z_i = 2.286, p_i=.022243). These odds increased to 81% for female speakers using the nonstandard variant (β= -1.6847, SE= .4880, z= -3.452, $p \leq 0.001$). Neither of these interactions (represented by subscript *i*) met the minimum level of significance set by the Bonferroni correction for this category of dependence, $p \leq 0.005$.

$p_i \leq 0.001$)[33]. The female speakers, however, uphold the trend we saw in section 3.3.2, in which a female speaker using nonstandard /s/ is rated much colder than a female using standard /s/ (β= -.44409, SE= .11007, t= -4.035, df= 1075.6, $p \leq 0.001$). By considering variable interactions with speaker sex upon analyzing respondent judgments, we see that the nonstandard variable seems to be quite undesirable for women, allowing for respondents to view them as much colder, while the velarized /s/ appears to hold "affective capital" for men, with respondents perceiving the nonstandard /s/ speaker in a warmer fashion. The *inseguro/seguro* pair was also found to have a significant interaction between variant rating and gender, men using velarized /s/ considered to be much more insecure (β= -0.31889, SE= 0.10869, t (1107.7) =-0.2934, p=0.00342). Finally, it is interesting to note that no significant interaction was found, that is, speaker sex does not play a role in how the variant is perceived, for judgements of intelligent/dumb, lazy/hardworking, kind/harsh, fun/boring, nice/mean and good person/bad person.

Among the four Likert scale rating adjectives, funny, serious, reliable and bad/tough guy, there were no significant interactions between the /s/ variable and speaker sex for the ratings of these characteristics when a linear mixed-model was carried out on the data as a whole[34]; however, when the exploratory analysis of the data according to synonym subgroups was performed a significant interaction is found for *fiable*. When participants considered the word *fiable* (reliable) to mean *de confianza*

[33] Here and in the following sections which discuss interactions, subscript *v* refers to the coefficients for the *variant* predicting for velarized /s/ and subscript *i* refers to the coefficients for the interaction between [X] and the variable of interaction. Subscript *s* refers to speaker sex and subscript *g* refers to respondent gender.

[34] The interaction between the /s/ variable and speaker sex found for *serio* was discarded because it did not reach the established Bonferroni significance correction of p=0.00416 for this category of dependence. For *serio*, a male velarized /s/ speaker was considered less serious than other speakers at a significance of p=0.00527 (β= -0.4467, SE = 0.1598, t(1088.9)= -2.796). In contrast, an interaction between speaker sex and the variable for a subgroup of *gracioso*, that of a *simpático* interpretation (N= 95), was found in which a male velarized /s/ speaker was found to be *more* nice/cute/funny than his standard /s/ guise (β_i=1.4081, SE_i= 0.5078, t_i (54.56)= 2.773, p_i=0.0076 ; β_v= -0.9612, SE_v= 0.3126, t_v (72.12)= -3.074, p_v=0.003). The effect was opposite for women.

(reliable/trustworthy),[35] a velarized /s/ actually *helped* male speakers to be considered more reliable/trustworthy (β= 1.78837, SE= 0.53132, t(23.184)= 3.366, p= 0.00265). This echoes the results presented above in which the velarized variable positively influences the ratings of male speakers, in contrast with an apparent negative influence when the data is analyzed as a whole without considering speaker sex.

As for education and class, generalized linear mixed models using the binomial family and logit link were fit, producing only one significant interaction between the /s/ variable and speaker sex. This interaction was for the classifications of secondary school and university, in which while the /s/ variable affects a speaker's odds of being classified as either high school or university level education, this effect varies among men and women. In the original model used for all data, we found that speakers using nonstandard /s/ were 85% more likely to be placed in the secondary school category. The model considering speaker sex interactions found that the effect the nonstandard variant has on this education classification varies in degree by speaker sex, the odds of velarized /s/-speaking men increase to 92% (β_v= -1.525, SE_v=0.1896, z_v= -8.042, $p_v \leq 0.001$; β= -.9695, SE = .2896, z= -3.348, $p \leq 0.001$), while the odds for velarized /s/-speaking women lower to 78% (β_i=-1.525, SE_i=0.1896, z_i= -8.042, $p_i \leq 0.001$). In this way, we see that although the original effect of nonstandard /s/ on categorization as a high school education level rather than university still remains, by considering speaker sex in the model, we see that the effect is stronger for the male speakers than for the female speakers. This result is surprising in that we would expect women using the nonstandard variant to be more "marked" and thus present a stronger variable effect on their perceived education level. The distribution of education classification by speaker sex is presented below in Figure 25. The distribution

[35] For the Likert scale adjective ratings, the participants were asked to provide a synonym for their interpretation of the particular adjective's meaning. This subgroup has a total of 43 participants that considered *fiable* to mean *de confianza*.

of the data for class according to speaker sex is also presented below in Figure 26, although it should be noted that categorization of speaker guises according to class did not show any significant interactions between the variable and speaker sex.

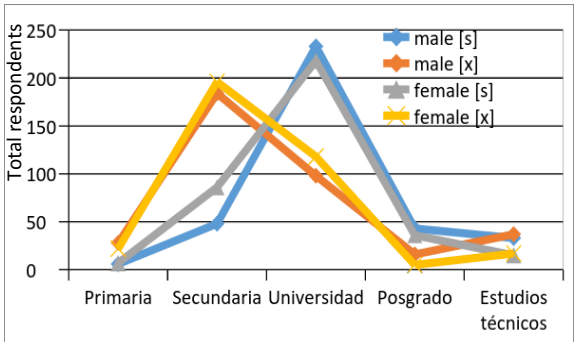


Figure 25: Distribution of education categorization by speaker sex.

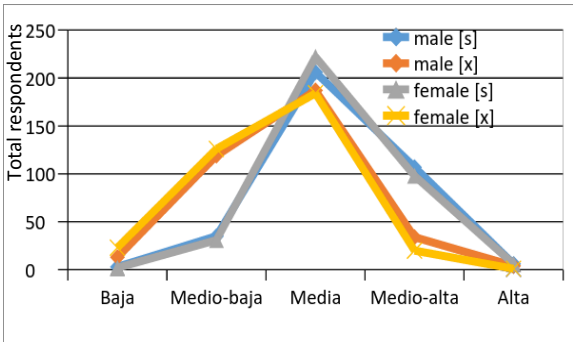


Figure 26: Distribution of class categorization by speaker sex.

Within the category of speaker professions, a notable difference between professions ascribed to particular speaker guises exists among the speaker sexes, although the /s/ variable effect seems to be the same: standard /s/ is associated with professions requiring higher education, while nonstandard /s/ is associated with trade jobs or positions that require less education. For the female speakers, those professions that have a frequency of at least ten mentions for the standard /s/ guises include an administrative position (19), a position in which they work directly with people (10), sales assistant (11), student (27), as well as various forms of teaching, *maestra* receiving 14 mentions, *profesora infantil* 13 and *profesora* 41. In addition to these high frequency mentions of educator positions, other forms of this profession were cited for the standard /s/ female guises, including *profesora de primaria* (6), *maestra infantil* (4) and *educadora infantil* (4)[36]. Furthermore, in addition

[36] Here are included only those responses with a frequency of at least three mentions. Other educator positions mentions include *directora de colegio* (1), *educación infantil* (1), *educación* (1), *educadora infantil* (1), *educadora* (2), *maestra de primaria* (1), *magisterio* (2), *pedagoga* (1), *profesora de guardería*

to the high frequency response of *estudiante*, university student was also listed 8 times[37]. Clearly, for the female speakers, standard /s/ is associated with education, either in the form of study or as a teacher, whether at the early childhood education level or more advanced levels of study[38].

Male speaker guises of standard /s/ are also associated with education, *estudiante* being mentioned with a frequency of 29 times, in addition to university student with a frequency of 7[39], and *profesor* with 22[40]. Other professions with 10 mentions or more include lawyer (13), an administrative position (13), sales assistant (10), businessman (17), government worker (10), computer programmer (20) and engineer (22). While the less prestigious positions of *administrativo* and *dependiente* are shared in high frequency professions provided for both male and female [s] guises, one can clearly see that the most prestigious professions mentioned are reserved for the male speakers. The visual representations of the responses provided for the female standard /s/ guises are provided below in Figure 27 and those ascribed to the male standard /s/ speaker guises are presented in Figure 29.

The professions ascribed to both male and female speaker guises of velarized /s/ are, as we would expect, positions that require less education. As can be seen in Figure 28 below, female nonstandard /s/ guises are attributed professions such as a position in

(1), *profesora de lengua* (1), *profesora de literatura* (1), *profesora de secundaria* (1) and *profesora universitaria* (1).

[37] Here are included only those responses with a frequency of at least three mentions. High school student, *estudiante de secundaria*, and student intern, *becaria*, were each given as an answer twice.

[38] While *maestra* can generally be translated to English as "teacher", *profesora* can refer to either "teacher" or "professor", and it is unclear here whether respondents were referring to elementary school, high school or university level teachers.

[39] Here are included only those responses with a frequency of at least three mentions. Graduate student was also given as an answer twice, and student intern was offered as a response once.

[40] Here are included only those responses with a frequency of at least three mentions. Other educator positions mentions include *educación* (1), *educador* (2), *maestro* (1), *profesor de literatura* (1), *profesor de primaria* (2) *profesor de secundaria* (2) and *profesor universitario* (1).

administration (19), housewife (14), supermarket cashier (14), cashier (no workplace specified) (12), sales assistant (48) and hairdresser (16). Furthermore, once again the speakers are thought to be students as well as teachers, but this time less frequently, *estudiante* being mentioned 18 times[41] and *maestra* offered 10 times, in addition to *profesora infantil* (5) and *profesora* (6) [42]. Lastly, 14 participants simply said they were unsure of what the speaker's profession might be.

For the male nonstandard /s/ speaker guises, those professions with a frequency of at least ten mentions included waiters (13), sales assistants (17) and mechanics (25). Furthermore, eleven participants hypothesized that a velarized /s/ male speaker was unemployed while ten respondents were unable to attribute a particular trade to the nonstandard /s/ male speaker. Finally, like their female counterparts, male velarized /s/ speaker guises were also thought to be students, with a frequency of 26 mentions. Here we see that although the frequency of mentions for both speaker sexes does lower for *estudiante* with velarized /s/, this response still holds a strong place, especially among the male speakers. It is difficult to postulate why this may be, given that it is unclear which *type* of student the respondent assumed the speaker to be. We can see that standard /s/ receives some specified responses of university student, and even a couple mentions of graduate student (see footnote 39), while nonstandard /s/ does not; however, it is impossible to know what kind of student the respondents had in mind when simply writing *estudiante* as a response. In the same way, should the respondents have been referring to a high school student, it is difficult to know whether it is the velarized /s/ that reminded participants of

[41] Here are included only those responses with a frequency of at least three mentions. University student was also given as an answer once.

[42] Here are included only those responses with a frequency of at least three mentions. Other educator positions mentions include *educación infantil* (2), *educación* (1), *educadora infantil* (2), *educadora* (1), *pedagoga* (1), *profesora de niños pequeños* (2) and *profesora de primaria* (2).

the informal speech of such students or whether it was the speaker guise pitch, or the speaker's voice, that appeared youthful to participants.

A final dissimilarity between speaker sex and the professions ascribed to the differing /s/ variants is hardly detectable but still warrants mentioning, and perhaps further study in the future. A slight difference was observed in certain professions of which frequency of mentions was too small to meet the established minimum in the visual representations used to present the data, in particular, among the female guises. Those technical and traditionally masculine professions seen in the responses provided for the male standard /s/ speaker guises, such as *científico*, *informático* and *ingeniero*, are notably missing from the professions we can see in the tagclouds presented for female speaker guises, both for standard /s/ guises in Figure 27 and velarized /s/ guises in Figure 28. Interestingly, these professions *do* appear, even if only minimally, as possible careers for female speakers when the nonstandard variant is used. One participant thought the velarized /s/ speaking woman could be a scientist, while another thought she could be a computer programmer and two participants offered "engineer" as her possible occupation. None of these professions are mentioned for the standard /s/ female speaker guises. In the same way, other traditionally male-dominated professions such as *empresario* or *médico are* offered as possible professions for standard /s/ female speakers, with four and three mentions respectively; however, it is curious to note that these professional and high-education occupations do not lead to a notable drop in frequency of mentions when velarized /s/ is employed, businesswomen provided as an answer three times, and doctor once. Although the general trend seen for both speaker sexes is that standard /s/ is associated with professional occupations which require more education while the nonstandard variant signals a low education job or trade, these subtle differences presented here suggest that perhaps nonstandard /s/ also gives women a tougher, more masculine

quality, thus leading them to be found more capable of holding the highly qualified careers most frequently reserved for men. It is interesting indeed that a velarized /s/ would warrant the first and only mentions of scientist, computer programmers and engineers for women, while the same variant dramatically drops the number of participants ascribing these positions to the male speakers. Although this falls outside the scope of this dissertation, it is an important area to be explored.

Figure 27: Professions ascribed to female [s] speakers

Figure 28: Professions ascribed to female [X] speakers

Figure 29: Professions ascribed to male [s] speakers

Figure 30: Professions ascribed to male [X] speakers

Next in the examination of the data through the lens of speaker sex are the participant preferences of personal and professional relationships with the speakers in the four guises. Based on the findings from personal traits in which the nonstandard variant actually helps male speakers to be seen as more loving, an effect of speaker sex interacting with the variant was expected for the more personal relationship of friendship. This was not the case, however, as there appeared to be no significant interaction between speaker sex and variable for any type of relationship preference. In the same way, there were no

significant interactions between the /s/ variable and speaker sex for liking of the story[43] nor for whether the respondent thought they would get along with the speaker.

3.4.1 Summary

While gender does not appear to have played a large role in the identities ascribed to speakers of standard /s/ versus nonstandard /s/, certain examples such as that of the pairs *seco/cariñoso* and *inseguro/seguro*, or that of the subgroup of *fiable* as *de confianza*, show us the importance of considering differences among the speakers, particularly one as strong as gender. *Inseguro/segura* shows us that the "significant effect" the variable has on perception of speakers with this pair is only true for men. Even more important is the example of *seco/cariñoso* in which we see that the variable has an *opposite* effect on how a speaker is perceived based on the gender of the speaker using a particular variant. This same effect can be seen in the results from the subgroup of *fiable, syn=de confianza*. The interaction the /s/ variable had with speaker sex for categorization of high school versus university level education was a surprising one, but the various professions offered for each of the sexes when we take a closer look at the data help explain this interaction, offering evidence that perhaps velarized /s/ aids in creating a sense of "competence" in what is generally viewed as a more male profession. Using this apparently more "manly" variant for men, however, was viewed as more strongly indicative of lower education level and subsequently jobs which do not require high qualifications. These more nuanced insights into the social meaning of velarized /s/ would have been missed had speaker sex not been considered in this analysis.

[43] Speaker sex was found to play a role in how well the story was liked, regardless of the /s/ variable. A male speaker was 68% less likely to have his story liked when compared to the female speakers (β= -1.13295, SE= 0.4475, z= -2.532, p= 0.01135).

3.5. RESULTS ACCORDING TO RESPONDENT BACKGROUND

Garrett (2010) advocates the importance of considering the background of the respondents in language attitudes studies rather than merely the speakers and the responses they receive. It is surprising that more studies do not follow this tenet; indeed, if the way we speak is affected by our background— and to be sure, variation studies are based on this premise— , then certainly it also affects how we perceive speech, that is, the language attitudes we hold. In this section we will examine the data from a lens focused on participant information, beginning with a continuation of the examination of the role of gender, this time the gender of the respondents and how it affects their judgments. Following this we will take a close and in-depth look at the origin of the respondent and its role in the attributes the participant associates with the variable.

3.5.1 Respondent gender

Here we will explore the data considering respondent gender. There were 50 men and 93 women who took the version A of the matched guised survey while 77 men and 153 women participated in version B for a total of 127 male participants and 246 female[44]. Much like the previous section in which the data was examined according to speaker sex, respondent gender showed no effect or interaction with the /s/ variable for judgments of speaker origin. A linear mixed model did, however, find significant interactions between respondent gender and the variable /s/ for speaker ratings in three adjective pairs, *inteligente/tonto* (β= 0.33192, SE= 0.09881, t(1070.8)= 3.359, $p \leq 0.001$), *perezoso/trabajador* (β= -0.37742, SE= 0.11705, t(1082.1)= -3.224, p= .0013) and *seco/cariñoso* (β= -0.37342, SE= 0.11691, t(1072.6)= -3.194, p=0.0014). Within the first adjective group, *inteligente/tonto*, both men

[44] Version A had ten participants that did not provide their gender while version B of the survey had three.

and women found speakers with nonstandard /s/ to be less intelligent, although the real difference between respondent gender lies in the rating of standard /s/: Women rate the standard variant much higher than men, that is, the variable plays a significant role in women's ratings of a speaker's intelligence, nonstandard /s/ lowering intelligence and standard /s/ greatly raising it. A post hoc analysis was performed in which the data was separated according to respondent gender and a linear mixed model was run for each group, and the results echoed the above finding: The variable's effect on intelligence rating was significant at the 0.01 level for the men's data (β= 0.3212, SE = 0.1244, t(357.1)= 2.582, p=0.01021), which does not make the corrected significance level of $p \leq 0.00416$ after the Bonferroni adjustment for this category of dependence is applied. The women's data, however, boasted a much stronger significance level of $p \geq 0.001$ (β= 0.7165, SE= 0.07683, t(709.7)= 9.325), showing that while the pair of intelligent versus dumb seemed to be very strongly affected by the nonstandard /s/ variant, including respondent gender in the analysis shows that it is the women respondents that pay the most attention to the /s/ variable in judging a speaker's intelligence level. We see here that not only is it the nonstandard variant that women are noticing, lowering speakers' intelligence rating, but the standard variant as well, greatly raising their perceived level of intelligence. A comparison between the ratings of this adjective pair according to gender can be found below in Figure 31.

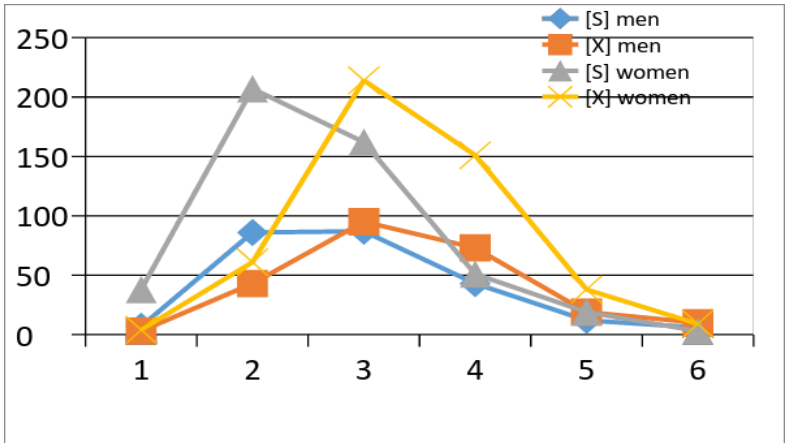


Figure 31: Intelligent (1) - Dumb (6) ratings y respondent gender

For the next pair, *perezoso/trabajador*, a significant interaction was found between respondent gender and the variant in which we can see that female respondents find speakers using velarized /s/ to be lazier than do men. Likewise, women also find standard /s/ to be indicative of a hardworking person more than men do. The data shows that while both men and women found /s/ > [x] as equally dumb in the first pair we examined, in this pair women find /s/ > [x] as lazier than men. Likewise, when compared to men, women find standard /s/ to have a stronger effect in positively rating the speaker for this pair, although standard /s/ seems to have a slightly smaller influence in rating a speaker as hardworking when compared to intelligent. Like the above pair, a post hoc analysis was performed in which two separate linear mixed models were run according to respondent gender, and once again, the results corroborate the above findings. The variable's effect on the male respondents' rating of work ethic approached the adjusted significance level set by the Bonferroni correction, although failing to meet it at $p = 0.00784$ ($\beta = -0.3561$, SE = 0.1332, $t(360.1) = -2.674$). The effect of the variable on women's judgments of this pair was significant at the highest level ($\beta = -0.8298$, SE = 0.09659, $t(717) = -8.591$, $p \leq 0.001$).

Both the distributions for ratings for *inteligente/tonto* and *perezoso/trabajador* according to gender are presented below in Figure 32.

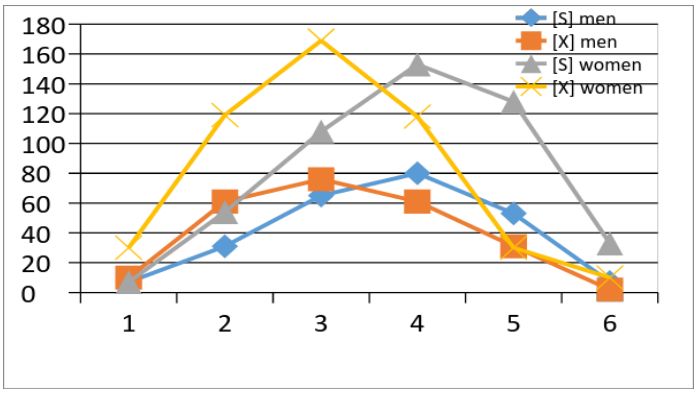


Figure 32: Lazy (1) - Hardworking (6) ratings by respondent gender

The last pair to be identified as being both significantly affected by the variant alone as well as having a significant interaction between respondent gender and the variant ratings is *seco/cariñoso.* As seen with the other pairs, both women and men find speakers using the nonstandard variant to be more closely associated with the negative adjective, this time *cold*. Women, however, show a stronger effect, rating a speaker with velarized /s/ as colder than men do. By the same token, women find standard /s/ to be more indicative of a warm person than do men. As can be seen in the graph presented in Figure 33, while nonstandard /s/ does seem to have a slight effect on how cold a person is viewed among men, unlike the case of women respondents, standard /s/ does not necessarily make much of a difference in how warm or loving a person is judged to be. Once again a post hoc analysis was performed separately for the data according to gender, in which the men's data did not reach the significance level of the Bonferroni correction at p=0.0097 (β= -.3507, SE= 0.1349, t(360.5)= -2.6) while the variable's effect on a speaker's judgment as

either cold/dry or warm/loving was indeed significant at the $p \leq 0.001$ level for the female listeners (β= -0.86637, SE= 0.09559, t(709.9)= -9.063).

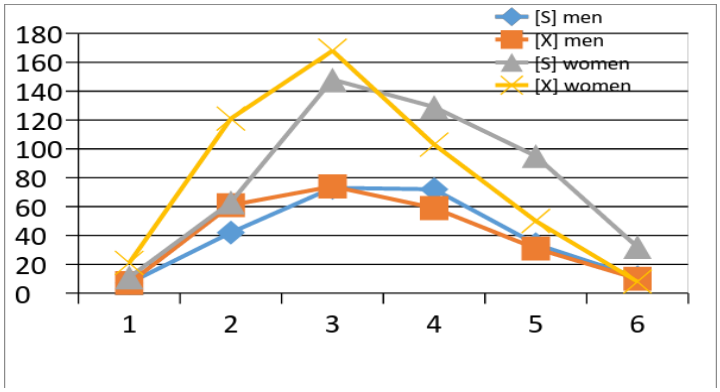


Figure 33: Dry/cold (1) -warm/loving (6), distribution of ratings by respondent gender

Two other pairs of characteristics showed interactions between the variable and respondent gender, *majo/raspa*[45] and *simpático/antipático*[46], however, as they did not meet the level of significance as set by the Bonferroni correction for this set of data, the results were discarded.

Among the Likert scale adjectives, only the characteristic of *malote* showed a strong interaction of effect between the /s/ variable and participant gender. Here we find that although both genders of participants find the velarized /s/ speaker guises to be more *malote*, it is the women who are most influenced in their perception of the degree to which a speaker is *malote*. Those respondents that find a speaker guise to be the least *malote* are women listening to a standard /s/ guise, and those who consider the speaker guise to be the

[45] (β_i=0.32622, SE_i= 0.11412, t_i (1083.9)= 2.859, p_i = .00434 ; β_v= -0.02204, SE_v= 0.09291, t_v (1085.6)= -0.237, p_v = 0.81254 ; β_g= -0.25746, SE_g= 0.08896, t_g (901.4)= 2.894, p_g = .00389)
[46] (β_i= .24672, SE_i= .10009, t_i (1077.4)= 2.465, p_i=.0139 ; β_v= 0.06495, SE_v= 0.08150, t_v (1078.4)= 0.797, p_v = 0.4256 ; β_g= -0.1601, SE_g= 0.07877, t_g (885.6)= -2.032, p_g = .0424)

most *malote* are women listening to velarized /s/. The judgments of *serio*[47] and *fiable*[48] also initially displayed an influence from an interaction between respondent gender and the /s/ variable, but as the significance level did not reach the minimum set by the Bonferroni correction, these results were discarded. In the same way, the only interaction between respondent gender and the /s/ variable for class was discarded by the Bonferroni correction[49]. Education level judgments were not affected by the gender of the respondents.

As for personal and professional relationship preferences, the linear mixed models run showed all three relationship groups, friend, colleague and employee, to have a significant interaction between the variable rating and the respondent gender, p=0.0057 (β= -0.3528, SE= 0.1273, t(1068)= -2.772), p=0.00178 (β= -0.4341, SE= 0.1386, t(1060)= -3.132) and $p \leq 0.001$ (β= -0.4559, SE= 0.1374, t(1054.6)= -3.318) respectively. Within the category of *friend*, women seem to slightly prefer speakers using standard /s/ as friends, and while men are only slightly less likely to prefer a nonstandard /s/ speaker for a friend, women have a somewhat stronger reaction to velarized /s/, more likely to not want a nonstandard speaker for a friend. In the post-hoc analysis, it was found that the variable was extremely significant, $p \leq 0.001$, for women in deciding whether they would want to be friends with the speaker (β= -0.68857, SE= 0.10155, t(708.1)= -6.780), whereas for male

[47] Here the women seem to find the velarized speaker more serious (β_i=0.358, SE_i=0.169, t_i (1086.2)= 2.116, p_i= 0.0346 ; β_g=-0.2987, SE_g= 0.1203, t_g (1058.2)= -2.482, p_g=0.0132). This is a surprising finding for an interpretation of *responsible* for *serio* but not surprising for an interpretation of a cold/dry disposition.

[48] Here the women tend to find the velarized speaker less reliable than the standard /s/ speaker (β_i=-0.3412, SE_i=0.1351, t_i (1082.7)= -2.526, p_i=0.0117 ; β_v= -0.5233, SE_v=0.1104, t_v (1087.6)= -4.739, $p_v \leq 0.001$). Furt hermore, an interaction for the subgroup of *fiable* as *de confianza* was found presenting the same tendency (β_i=-1.4492, SE_i=0.5734, t_i (21.912)= -2.528, p_i=0.0192 ; β_g=1.8546, SE_g= 0.5323, t_g (30.083)= 3.484, p_g=0 .0015)

[49] With a new significance level of 0.0125 with the Bonferroni correction, the grouping of lower middle class versus middle class presented an interaction that approached significance at p=0.0192. The model showed male listeners to be 3.05 times more likely to consider velarized /s/ speakers as lower middle rather than middle class (β= 0.782, SE= 0.3339, z= 2.342, p = 0.0192) while women were 6.67 times more likely to make this categorization (β_v=1.1157, SE_v= 0.262, z_v= 4.259, $p_v \leq 0.001$; β_i= 0.782, SE_i= 0.3339, z_i= 2.342, p_i = 0.0192).

respondents, the variable did not make a significant difference in how speakers were judged (β= -0.2112, SE= 0.1542, t(357)= -1.369, p = 0.1717). This echoes some of the tendencies we saw in other affective adjectives, although the Bonferroni correction discarded them as statistically insignificant tendencies.

For the next category, a co-worker relationship, both men and women seem to have adverse reactions to having a velarized /s/ speaker for a colleague, women with a somewhat stronger reaction than men, and standard /s/ mattering more for women in preferring someone as a co-worker. In a post hoc analysis of the data separating men and women respondents, both groups presented a significant effect of $p \leq 0.001$ (β= -0.6589, SE= 0.1636, t(358.7)= -4.027 ; β= -1.16298, SE= 0.11228, t(694.7)= -10.358). Lastly, as we would imagine, the strongest variable effect can be seen for preference of hiring a speaker. For this group, the results replicate those of preferences for a colleague, only with a slightly stronger negative effect for the nonstandard /s/ and for women respondents, a stronger positive effect for standard /s/. Likewise, the post hoc analysis showed the variable to have a significant effect at the highest level, $p \leq 0.001$, for both men and women in deciding how likely they were to hire a particular speaker (β= -0.7574, SE= 0.1592, t(355.7)= -4.759 ; β=-1.27567, SE= 0.11246, t(696.5)= -11.344). The distribution for all three groups, *friend*, *colleague* and *employee*, are presented below in Figures 34- 36[50].

[50] Again, there were many more female respondents than male, and for this reason the curves of distribution for women fall higher along the y axis; what should be compared here are not the numbers of responses but rather the distribution curves.

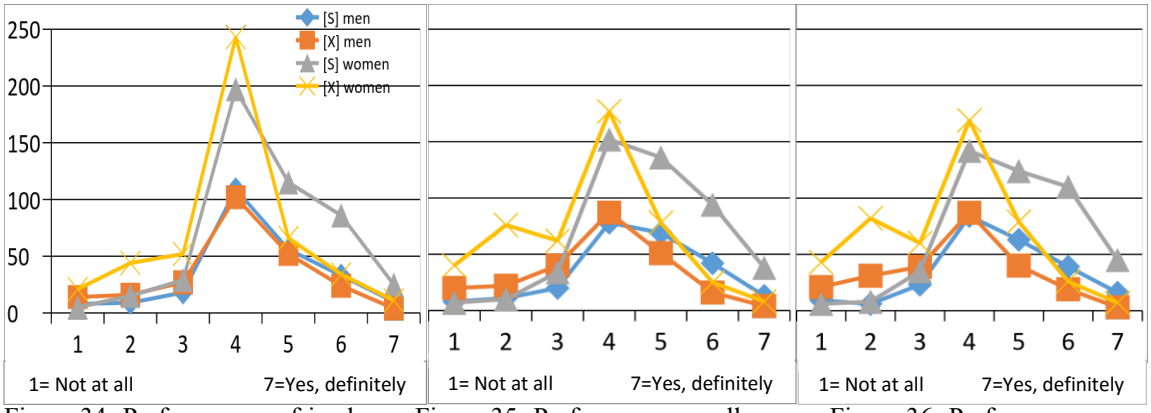


Figure 34: Preference as a friend Figure 35: Preference as a colleague Figure 36: Preference as an employee

The distribution of preference for personal and professional relationships with the speakers of each variant reflect the results seen with the adjective pairs: the variable seems to play a larger role in the judgments of women responders, and although the nonstandard variant plays an important role in judgments of competency for both genders, the importance of the standard variant is stronger for women listeners than it is for men. These findings support the established notion in sociolinguistics that women attribute more importance to standardness of variables in speech. We can clearly see here instances in which the variable that originally appeared to affect perception of speaker guises in general, upon closer inspection, seems to be reduced to mainly influencing women's impressions of the speakers.

Next, with reference to the manner in which each of the speakers narrated the story, respondent gender also has an important role in the variant effect, presenting a significant interaction (β= -0.80459, SE= 0.28169, z= -2.856, p=0.00429). Once again, the /s/ variable used appears to have a larger effect on female participants, as women listening to [s] are 1.59 times more likely to like the story than a man listening to standard /s/ (β= 0.46424, SE= 0.20228, z= 2.295, p = .02173). The odds of a woman liking the story when listening

to [x][51] decrease by 75% (β_v= -1.03798, SE_v= 0.26595, z_v= -3.903, $p_v \leq 0.001$; β_g= 0.46424, SE_g= 0.20228, z_g= 2.295, p_g = .02173 ; β_i= -0.80459, SE_i= 0.28169, z_i= -2.856, p_i= 0.0043) whereas a man listening to [x][52] is only 65% less likely to like the story (β_v= -1.03798, SE_v= 0.26595, z_v= -3.903, $p_v \leq 0.001$). While both men and women are less likely to care for the story with velarized /s/, women a bit more than men, women are much more likely to like the story with [s].

Lastly, a significant interaction between respondent gender and the /s/ variable was also found for the data regarding whether the listener thought they would get along with the speaker. A woman listener is 75% less likely to think she would get along with a velarized /s/ speaker (β_v=-0.7147, SE_v= 0.2669, z_v= -2.678, p_v= 0.00741 ; β_i= -0.674, SE_i= 0.3343, z_i= -2.016, p_i= .04376), a rate that lowers to 51% for male listeners (β_v=-0.7147, SE_v= 0.2669, z_v= -2.678, p_v= 0.00741). Here we can see that the nonstandard variant decreases the odds of all respondents believing they might get along with the speaker, although this effect is stronger in the female listeners.

3.5.1.1 Summary

In taking into consideration respondent gender when analyzing the data, the general principle of sociolinguistics in which women pay more attention to speech and place more value on standard variants was clearly demonstrated in the results. Here we saw that for the traits of *inteligente/tonto*, *perezoso/trabajador*, *seco/cariñoso* and *malote*, it was the women that reacted most strongly to the variants, velarized /s/ producing a stronger negative effect in their judgments than their male counterparts. The main difference, however, was the positive effect on female judgments as compared to the male participants:

[51] When compared to men listening to [s].
[52] When compared to men listening to [s].

women care about standard /s/ whereas it does not seem that men do. This finding also holds true for the professional relationship preferences of colleague and employee. In the case of friendship, it is only the female participants for which the /s/ variable makes a difference, standard /s/ leading to a preference for friendship and velarized /s/ deterring such a preference. Lastly, following the same tendencies, the responses for liking the story and perceived compatibility with the speaker show a stronger variable effect on the female participants. Interestingly, there appears to be no significant difference in judgments of class and education level among participant gender.

3.5.2 Respondent origin

In taking into account respondent origin in analyzing the results, the analysis will be limited to those Autonomous Communities for which more than 20 participants were sampled. These include Asturias (21 participants), the Balearic Islands (30 participants), the Canary Islands (56 participants), Castile and León (30 participants), Castile-La Mancha (21 participants), Catalonia (67 participants) and Madrid (59 participants). First we will look at whether each group of participants actually associated the nonstandard variant with Madrid, followed by an exploration of the attitudes presented for each group of participants. This second part will be divided in two, first reporting the results of the data from regions that indeed associate velarized /s/ with Madrid, followed by the findings from those that do not. In this second part, when graphs are provided illustrating the findings, they are only included for the results of Madrileño participants themselves.

3.5.2.1 Respondent place of origin: Is the variable associated with Madrid?

If you recall from section 3.3.1, there was a general increase in identifying the speaker as Madrileño from 25% with standard /s/ to 38% with the nonstandard velarized /s/. In this section we look at how this trend varies among participants from the seven Autonomous Communities selected, discovering that this general trend of velarized /s/ helping to identify a speaker as Madrileño does not hold true for respondents from all Autonomous Communities. In carrying out the analysis, a generalized linear mixed model using the binomial family and logit link was run, simply asking whether the participants chose Madrid as the speaker's place of origin rather than any other region. The statistical analysis was run for each group of participants separately, treating the data from each of the seven abovementioned regions as separate subsets. Furthermore, the model included interactions between speaker sex and respondent gender, as we previously established that important discoveries could be overlooked without considering such interactions.

First we see that participants from Madrid's closest northern neighbors of the group, Asturias and Castile and León, do indeed associate the nonstandard variant with Madrid, velarized /s/ aiding in identifying a speaker as Madrileño. When velarized /s/ is produced, those participants correctly identifying the speaker as Madrileño show a 57% increase for Asturianos and a 52% increase for Castillanoleoneses (see Figure 37 and 38 below); that is, an Asturiano is 16.9 times more likely to identify a speaker as Madrileño with /s/> [x] (β=2.8283, SE= 0.5885, z= 4.806, $p \leq 0.001$), with a very similar odds ratio resulting for the Castillanoleoneses, /s/ > [x] making them 16 times more likely to identify a speaker as Madrileño (β= 2.7747, SE= 0.5128, z= 5.411, $p \leq 0.001$). Clearly, the velarized /s/ is characteristic of Madrileños for participants from these regions.

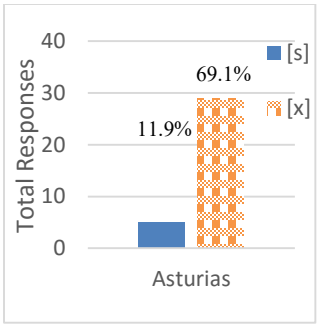
Unlike these northern regions, the northeastern/eastern communities of Catalonia and the Balearic Islands do not show a significant effect of the /s/ variable in being able to

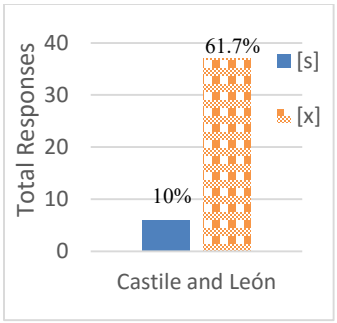
successfully identify a Madrileño. The same holds true for those participants from the Canary Islands. In the graphs presented below in Figures 41- 43, the reader can appreciate that the velarized variable seems to detract from recognizing a Madrileño, by 13% for the Balearic Islands and 4% for both Catalonia and the Canary Island Communities, although these decreasing trends are not statistically significant (β= -0.7538, SE= 0.4551, z= -1.656, p=0.09765 ; β= -0.394, SE= 0.2985, z= -1.32, p=0.187 ; β= -0.2413, SE= 0.3022, z= -0.798, p= 0.424621). In the same way, although for different reasons, the velarized /s/ does not significantly contribute to correctly identifying a Madrileño for the participants from Castile-La Mancha (β= -0.2188, SE= 0.4935, z= -0.443, p= 0.657). This result is expected, as Madrid shares the most borders with this Community, and furthermore and more importantly, Manchegos themselves use the velarized /s/ (Henriksen & Harper, 2016; Sánchez-Muñoz, 2004). Indeed, the results show that respondents from this region do not associate the variant with Madrid, but rather with themselves. While a 4% decrease in correct Madrileño identification occurs with velarized /s/, going from 33% to 29%, as seen in Figure 40, it should be mentioned that /s/ > [x] more than doubles the number of Manchegos who believe the speakers to also be from Castile-La Mancha, from 17% with standard /s/ to 36% with velarized /s/[53].

Lastly, as for the Madrileños themselves, velarized /s/ is clearly recognized as a Madrileño variant, raising the responses from 35% identifying the speaker as Madrileño with standard /s/ to 53% with velarized /s/, as seen in Figure 39. The influence of the variable for Madrileño participants is statistically significant at the 0.001 level (β_v= 1.6569, SE_v= 0.4794, z_v= 3.456, OR= 5.243, $p_v \leq 0.001$). An interaction between speaker sex and

[53] An analysis was run in order to see whether this influence of the velarized variant for participants from Castile-La Mancha in identifying speakers as Manchegos as well was statistically significant. It should be noted that it was not in fact significant at p= .0531 (β=1.0507, SE= 0.5434, z= 1.934, OR: 2.8596): Manchegos simply do not notice the velarized /s/.

the effect of the variable was initially found in which velarized /s/ appeared to be much more indicative of a Madrileña for respondents from Madrid than for their male guise counterparts[54]; however, this interaction was not considered to be statistically significant under the Bonferroni correction for this category of dependence. The distribution of the responses recognizing the speakers as Madrileño with each of the variants for each of the seven Autonomous Communities is presented below in Figures 37-43.





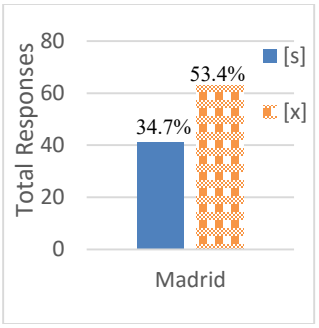
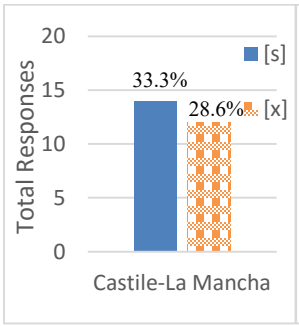
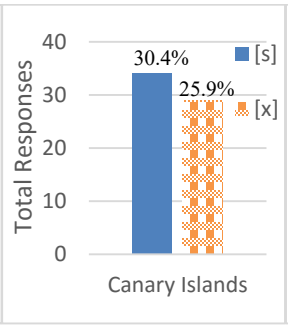
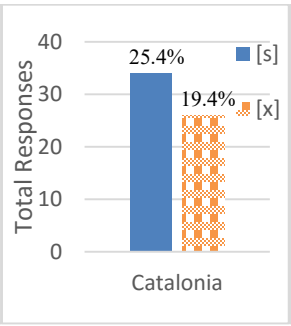


Figure 37: Asturias, 42 responses[55] Figure 38: C & León, 60 responses Figure 39: Madrid, 118 responses







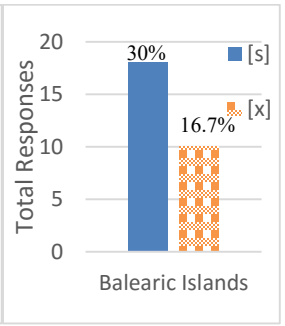


Figure 40: Castile-La Mancha 42 responses Figure 41: Canaries 112 responses Figure 42: Catalonia 134 responses Figure 43: Baleares 60 responses

Figure 37- Figure 43: Number of respondents who identified the speaker as Madrileño.

[54] β_v= 1.6569, SE_v= 0.4794, z_v= 3.456, OR= 5.243, $p_v \leq 0.001$; β_i= -1.5552, SE_i= 0.645, z_i= -2.411, OR=0.212, p_i= 0.01589

[55] The total number of responses is double the total number of participants, as they each listened to two different speakers with each variant.

3.5.2.2 Respondent place of origin: Personal characteristics

In this section, we examine how the /s/ variable affected the respondents' judgments towards speakers' personal characteristics, considering each set of data according the respondents' origin. First the data from the Madrileños will be discussed, followed by the results for each of the communities that also associate the nonstandard variant with Madrid, Asturias and Castile and León. Lastly, the results for those communities in which the variable does not seem to be a marker of Madrileño identity, Castile-La Mancha, the Canary Islands, Catalonia and the Balearic Islands, will be presented. First the results for the semantic differential scales will be reported followed by the Likert scale synonym adjectives.

Results for Autonomous Communities from which respondents associate [x] with Madrid

Madrid:

For those respondents that were themselves Madrileños, the velarized variant significantly affected their judgments of the speakers at the highest level, $p \leq 0.001$, for pairs of *inteligente/tonto*, *perezoso/trabajador* (β= -0.9932, SE= 0.1226, t(166.51)= -7.848), *simpático/antipático* (β= 0.4016, SE= 0.1165, t(166.72)= 3.448) and *seco/cariñoso* (β= -0.9633, SE= 0.1991, t(164.93)= -4.837). Here the nonstandard variant always affects the judgments negatively, making a speaker, according to a Madrileño, less intelligent, less hardworking and a meaner and colder person than the standard /s/ speakers. It should be noted that the variable has no significant effect on how fun or boring a speaker is, nor on how kind or rough a person is deemed to be. The influence of the /s/ variable on deciding how secure/insecure or how good or bad of a person the speaker is approaches significance at p= 0.0193 (β= -0.3353, SE= 0.1419, t(165.42)=-2.363) and p= 0.02 (β=0.2317, SE=

0.09864, t(169.68)= 2.349), respectively, but does not reach the significance level established by the Bonferroni correction at p=0.00416. As for the characteristics presented in the form of a Likert scale, two of these, *fiable* and *malote* were significantly affected by the /s/ variable. A velarized /s/ speaker, according to a Madrileño is less reliable (β= -0.8094, SE= 0.1527, t(166.5)= -5.299, p≤0.001) and more of a bad/tough guy (β= 1.3008, SE= 0.2142, t(166.66)= 6.073, p≤0.001). In considering a velarized speaker less *fiable*, madrileños most often interpreted *fiable* to mean *confiable* (dependable/trustworthy) with 12 mentions, *normal* (normal) with 11, *honesto* (honest) with 10, *de confianza* (reliable/trustworthy) with 9, *fiel* (faithful/loyal) with 5, *honrado* (honest/honorable) with 5, *responsable* (responsible) with 5 and *seguro* (sure/dependable) with 5. For the ratings of *malote*, synonym interpretations included *bueno* (good) with a frequency of 21 mentions, *normal* (normal) with 10, *buena persona* (good person) with 8, *pasota* (apathetic) with 7, *travieso* (mischievous) with 6 and *macarra* (rough) with 5[56].

Asturias:

Respondents from Asturias are quite adept at identifying a Madrileño speaker when s/he uses the velarized variant, although the variant itself does not seem to condition their judgments of the speakers as strongly as the general survey sample as a whole. The only characteristics that are significantly affected by the /s/ variable are the pairs of *inteligente/tonto* (β= 0.7947, SE= 0.1895, t(59.13)=4.193, p ≤0.001), *perezoso/trabajador* (β=-0.9214, SE=0.2125, t(75.9)=-4.336, p≤0.001) and *seco/cariñoso* (β= -0.923, SE= 0.2004, t(56.93)=-4.606, p≤0.001). All three pairs are significantly affected by the /s/ variable at the highest level: a velarized /s/ speaker is less intelligent, lazier and colder than

[56] Given the already scaled nature of the place of origin subgroups, an additional separate analysis according to synonym subgroups was not carried out for this nor the following sections.

the standard /s/ speakers, according to the Asturiano ear. The reader should note that the pairs of kind/harsh, fun/boring, nice/mean, insecure/secure and good person/bad person are not affected by the variable. Similarly, none of the Likert scale adjective (*gracioso*, *serio*, *fiable* nor *malote*) ratings were significantly influenced by the variable[57].

Castile and León:

The last regional group that associated velarized /s/ with Madrid was that of Castile and León, the nonstandard variant raising the number of participants that recognized the speaker as Madrileño by 52%. For the Castillanoleoneses, a velarized /s/ only affects how speakers are judged for the pairs of *inteligente/tonto* (β=0.6558, SE= 0.1408, t(81.53)= 4.659, $p \leq 0.001$) and *perezoso/trabajador* (β=-0.6077, SE=0.1994, t(79.76)=-3.048, p= 0.003122), the nonstandard variant speaker seen as less intelligent and less hard working. In addition, it should be noted that the pair of nice/mean approaches significance for the Castillanoleonés data at p= 0.00668 (β= 0.4268, SE= 0.1533, t(80.12)= 2.785), although still falling short of the Bonferroni corrected significance level[58]. Here the pairs which are not affected by the variable are kind/harsh, fun/boring, cold/loving, insecure/secure and good person/bad person. Lastly, among the Likert scale adjectives, *fiable* is significantly

[57] The characteristic of *gracioso* (funny) showed an interaction between the /s/ variable and respondent gender in which although both men and women considered the velarized /s/ speaker guises less funny, the effect was not as strong for Asturiana women (β_i= 1.285, SE_i= 0.5824, t_i (76)=2.207, p_i=0.0304 ; β_v= -2.0441, SE_v= 0.5648, t_v (76)= -3.619, $p_v \leq 0.001$). As this this interaction does not reach the Bonferroni corrected significance level of p= 0.00416, it was discarded. Likewise, an interaction between speaker sex and the /s/ variable was also found for *gracioso*, but as it was narrowly outside of the accepted significance level at p=0.00494, it too was discarded. This interaction found that Asturianos considered female velarized /s/ speakers to be less funny while male velarized /s/ speakers where actually considered funnier than their standard /s/ counterparts (β_i= 1.5, SE_i= 0.5185, t_i (78)= 2.893, p_i=0.00494 ; β_v=-1.0786, SE_v= 0.3666, t_v (78)=-2.942, p_v= 0.00429) .

[58] Another finding which fell short of the Bonferroni corrected significance level by a much larger margin, was an interaction between the /s/ variable and respondent gender, in which Castillanoleonesa women found velarized /s/ speaker guises to be more *seco* (cold/dry) rather than *cariñoso* (loving) (β= -1.0484, SE= 0.4784, t(103.92)= -2.208, p= 0.0294).

affected by the /s/ variable, a velarized /s/ leading a Castillanoleonés participant to consider the speaker less reliable (β= -0.7265, SE= 0.2253, t(81.48)= -3.224, p= 0.0018). The most frequent synonyms provided by Castillanoleoneses show a *fiable* interpretation of *de confianza* (reliable/trustworthy) with 9 mentions, *honesto* (honest) with 8, *indiferente* (indifferent/careless) with 4, *seguro* (sure/dependable) with 4 and *confiable* (dependable/trustworthy) with 3. It is worth mentioning that the /s/ variable effect on ratings for the characteristic *malote* approaches the Bonferroni corrected significance level (p=0.00416) at p=0.00573 with a velarized /s/ increasing the degree to which Castillanoleoneses found the speakers to be a bad/tough guy or girl (β= 0.8119, SE= 0.2861, t(81.14)= 2.838)[59]. Frequent synonyms provided for their ratings of *malote* included *bueno* (good) with a frequency of 6 mentions, *chulo* (cocky/cool) with 6, *buenazo* (good-natured) with 4, *bondadoso* (kind/warm-hearted) with 4, *malvado* (wicked/tough) with 3 and *responsable* (responsible) with 3.

Results for Autonomous Communities from which respondents do not associate [x] with Madrid

Castile-La Mancha:

Castile-La Mancha is a particularly interesting community to study the participant respondents because it is the other Autonomous Community where speakers also use the velarized /s/ (Henriksen & Harper, 2016; Sánchez-Muñoz, 2004). We saw before that the

[59] Other results that were discarded because of the Bonferroni correction include interactions between the /s/ variable and gender for both *gracioso* and *serio*. Castillanoleonesa women found a velarized /s/ speaker guise to be less funny while the men found such a speaker guise to be funnier than standard /s/ guises (β_i= -1.2175, SE_i= 0.5564, t_i (79.79)= -2.188, p_i = 0.0316 ; β_v= 1.1419, SE_v= 0.4962, t_v (79.88)= 2.302, p_v= 0.024). In the case of *serio*, it is the Castillanoleonés men that find velarized /s/ the least serious and standard /s/ the most (β_i= 1.7671, SE_i=0.6857, t_i (105.61)= 2.577, p_i= 0.0113 ; β_v= -1.7419, SE_v= 0.6114, t_v (105.62)=-2.849, p_v=0.0053 ; β_g= -1.4404, SE_g= 0.4921, t_g (105.77)= -2.927, p_g=0.0042), although given the varied interpretations of *serio*, it is hard to know exactly what these findings convey.

/s/ variant does not play a significant role in whether Manchegos identify a speaker as Madrileño, although the effect of velarized /s/ in identifying a speaker as Manchego approaches statistical significance. For the Manchegos, the /s/ variable has *no significant* effect on how a speaker is judged[60]. As opposed to respondents from Madrid, this finding suggests that while Manchegos may use the velarized variant as well, it is not marked for them in the way that it is marked for Madrileños.

The Canary Islands:

The Canary Islands are a region in which nonstandard /s/ prevails, although the variant is not the unique velarized variant but rather the more common aspirated variant [h]. Perhaps for this reason, much like the Manchego participants, the speaker trait judgments of the Canarios did not seem to be strongly influenced by the nonstandard /s/. Only two adjective pairs were conditioned by the /s/ variable, *inteligente/tonto* (β= 0.5976, SE= 0.1197, t(157.15)= 4.991, $p \leq 0.001$) and *perezoso/trabajador* (β= -0.5963, SE= 0.16, t(157.69)= -3.727, $p < 0.001$), nonstandard /s/ speaker guises being considered less intelligent and lazier. In the same way, two Likert scale adjective ratings were also significantly influenced by the /s/ variable[61], *fiable* (β=-0.6649, SE=0.1594, t(156.13)=-4.17, $p \leq 0.001$) and *malote* (β=0.7849, SE=0.1846, t(153.25)= 4.252, $p \leq 0.001$), a velarized /s/ making a speaker less reliable and more of a bad/tough guy or girl. Frequent synonym interpretations of *fiable*

[60] The Likert Scale adjective rating for *fiable* presented an effect from an interaction between the /s/ variable and speaker sex, in which male velarized /s/ speaker guises were viewed as *more* reliable than their standard /s/ counterparts while female velarized /s/ speaker guises were seen as *less* reliable than the standard /s/ guises (β_i=1.3186, SE_i= 0.5144, t_i (57.99)= 2.563, p_i= 0.01298 ; β_v= -1.0329, SE_v= 0.3663, t_v (58.26)= -2.82, p_v= 0.00656). This was later discarded, however, as the significance level did not reach the limit established by the Bonferroni correction.

[61] An interaction between the /s/ variable and speaker sex for *serio*, in which male velarized /s/ speaker guises were seen as less serious (β= -0.9508, SE= 0.425, t(162.43)= -2.237, p=0.0267), was discarded as it did not reach the limit established by the Bonferroni correction.

for the Canarios included *honesto* (honest) with 12 mentions, *de confianza* (reliable/trustworthy) with 6, *creíble* (believable) with 6, *seguro* (sure/dependable) with 6, *fiel* (faithful/loyal) with 5 and *leal* (loyal) with 5. The frequent interpretations provided for the *malote* ratings include *bueno* (good) with 14 mentions, *normal* (normal) *malvado* (wicked/tough) with 10, *agradable* (pleasant/ likeable) with 4 and *ruina* (wreck) with 4.

Catalonia:

Like the above regions, Catalans did not associate the velarized variant with Madrid, although unlike Castile-La Mancha and the Canary Islands, they did find it important in their judgments of the speaker guises. The speaker traits significantly affected by the /s/ variable include the pairs of *inteligente/tonto*, *seco/cariñoso* and *inseguro/seguro*. A nonstandard /s/ speaker for the Catalan participants is considered less intelligent (β=0.6573, SE= 0.125, t(187.39)= 5.258, p≤0.001), colder (β= -0.4019, SE= 0.1331, t(194.13)= -3.019, p= 0.00288) and more insecure (β= -0.3929, SE= 0.1254, t(193.04)= -3.133, p= 0.002).[62] Although the reader may be surprised to learn that judgments for the pair of lazy/hardworking were not significantly conditioned by the /s/ variable alone, it should be noted that this adjective pair did present a significant interaction between the /s/ variable and speaker sex: A male speaker using velarized /s/ was seen by the Catalans as much lazier than other speakers (β= -0.82004, SE=0.26367, t(191.1)=-3.11, p= 0.00216). Finally, like the Canarios, the Catalans found the velarized /s/ speakers to be less *fiable* (β= -1.0085, SE=0.1525, t(192.85)= -6.613, p≤0.001) and more *malote* (β= 0.9823, SE= 0.1719, t(193.37)= 5.714, p≤0.001)[63]. Frequent Catalan participant interpretations of *fiable*

[62] The pairs of majo/raspa (β= 0.3066, SE= 0.1201, t(192.79)= 2.554, p= 0.0114), simpático/antipatico (β= 0.2808, SE=0.115, t(193.34)= 2.442, p= 0.0155), and buena/mala persona (β=0.23104, SE= 0.10569, t(193.45)=2.186, p= 0.03) were all discarded by the Bonferroni correction in significance level.

[63] In addition, an interaction was found between the /s/ variable and the speaker sex in the effect on Catalan participants judgments of *serio* in which a male speaker of velarized /s/ was considered less serious (β= -

include *seguro* (sure/dependable) with a frequency of 15 mentions, *honesto* (honest) with 10, *confiable* (dependable/trustworthy) with 9, *dudoso* (suspicious) with 5 and *normal* (normal) with 5. The synonyms most often provided for their interpretation of *malote* included *bueno* (good) with 19, *bonachón* (kindly/good-natured) with 6, *chulo* (cocky/cool) with 5, *normal* (normal) with 5, *borde* (nasty/rude) with 4 and *responsable* (responsible) with 4.

The Balearic Islands:

The Balear participants also did not associate the variable with Madrid, with the nonstandard velarized /s/ deterring from a Madrileño identification by 13%. For these Baleares, the nonstandard variant speaker was less intelligent (β= 0.7687, SE= 0.1462, t(86.08)= 5.258, $p \leq 0.001$), lazier (β= -1.0018, SE= 0.1888, t(85.29)= -5.307, $p \leq 0.001$), more insecure (β= -0.5623, SE = 0.1891, t(88.29)=-2.973, p= 0.0038) and not as good of a person (β= 0.3736, SE= 0.1103, t(86.34)= 3.388, p=0.0011). It is interesting to note that some of the more affective adjectives were not affected by the /s/ variable, including kind/harsh, fun/boring, nice/mean and cold/loving [64]. The Likert scale adjective ratings that were significantly affected by the /s/ variable included *fiable* and *malote*[65]. A velarized /s/ speaker was viewed by the Balear participants as less reliable (β= -0.8915, SE=0.2329, t(113.46)= -3.828, $p \leq 0.001$), where *fiable* was most often thought of as *confiable*

0.802, SE=0.3914, t(190.46)= -2.049, p= 0.0418); however, as this did not reach the significance level established by the Bonferroni correction, this finding was discarded.

[64] This last trait (β= -0.4978, SE= 0.2139, t(81.83)= -2.327, p= 0.022434) was discarded as significant after applying the Bonferroni correction.

[65] Additionally, there was an interaction found between the /s/ variable and respondent gender for *serio*. For *serio*, a female respondent viewed velarized /s/ speaker as more serious than standard /s/, whereas the male participants saw the nonstandard variant speaker as much less serious (β_i= 1.5547, SE_i= 0.6953, t_i (107.27)= 2.236, p_i=0.0274 ; β_v= -1.219, SE_v= 0.5933, t_v (107.24)= -2.053, p_v=0.0425). Given its failure to reach the Bonferroni significance correction limit of 0.00416, this finding was discarded.

(dependable/trustworthy) with 4 mentions, *leal* (loyal) with 4, *honesto* (honest) with 3 and *seguro* (sure/dependable) with 3. Similarly, a velarized /s/ speaker guise was considered more *malote* by the Baleares (β= 0.8421, SE= 0.2553, t(84.48)= 3.299, p= 0.0014), where a *malote* rating was most frequently understood to mean *bueno* (good) with 4 mentions, *malvado* (wicked/tough) with 3, *canalla* (scoundrel) with 2, *chulo* (cocky/cool) with 2 and *educado* with 2. Again, here *gracioso*, which is more affective in nature, and *serio*, for which about half of the synonyms offered referred to more affective qualities, or disposition, corroborate the results from the semantic scale adjective ratings.

3.5.2.3 Education and Class

Results for Autonomous Communities from which respondents associate [x] with Madrid

Madrid:

For judgments of education level, there is only one significant /s/ variable effect for the Madrileño participant data: A Madrileño listening to velarized /s/ is 89% more likely to classify the speaker as having a high school education level rather than a university education level (β= -2.2108, SE = 0.3639, z= -6.075, $p \leq 0.001$). As far as class, the main effect of the /s/ variable can be seen in the data for lower-middle class compared to that of middle class. Here we find the /s/ variable has a highly significant effect on which class level is chosen as well as presents interactions with both speaker sex and respondent gender. We see that the odds of male speakers being classified as lower-middle class rather than middle increase by 10.88 times when they use velarized /s/ (β_v= 2.433303, SE_v= 0.006677, z_v= 364.4, $p_v \leq 0.001$; β_s= 0.509341, SE_s= 0.006679, z_s= 76.3, $p_s \leq 0.001$; β_i= -0.55522, SE_i= 0.006897, z_i= -80.5, $p_i \leq 0.001$), whereas with standard /s/ these odds only

increase by 1.66 times (as compared to a female standard /s/ speaker) (β= 0.509341, SE= 0.006679, z= 76.3, $p \leq 0.001$). Female nonstandard /s/ speaker guises also greatly affect their chances of being classified as middle class, the velarized /s/ making them 11.39 times more likely to be placed in the lower-middle class category (β= 2.433303, SE= 0.006677, z= 364.4, $p \leq 0.001$). For the interaction of respondent gender, Madrileño women listening to velarized /s/ are 14.79 times more likely to classify the speaker as lower-middle class (β_v= 2.433303, SE_v= 0.006677, z_v= 364.4, $p_v \leq 0.001$; β_g=-0.83929, SE_g= 0.006677, z_g= -125.7, $p_g \leq 0.001$; β_i= 1.100938, SE_i= 0.006677, z_i= 164.9, $p_i \leq 0.001$), and although men also show this effect, their odds are not *as* high, the respondents 11.39 times more likely to place the speaker in lower-middle class (β= 2.433303, SE= 0.006677, z= 364.4, $p \leq 0.001$). Madrileño women listening to standard /s/, however, were 57% more likely to consider the speaker as middle class rather than lower-middle (β=-0.83929, SE= 0.006677, z= -125.7, $p \leq 0.001$).

The comparison group of middle class ratings versus upper-middle class also provided significant results for the variable itself, without any interactions as seen in the above group. Here we see that a Madrileño listening to velarized /s/ is 74% more likely to categorize the speaker as middle class rather than upper-middle class (β= -1.3582, SE= 0.4527, z= -3, p= 0.0027). The generalized linear mixed models were unable to be run for the top range of comparisons, upper-middle to upper class, as well as the bottom range, lower to lower- middle class, due to very small numbers of participants rated as upper (3[s]) or lower class (7[x]). The distribution for the Madrileño participant judgments for speaker education and class are presented below in Figure 44 and Figure 45.

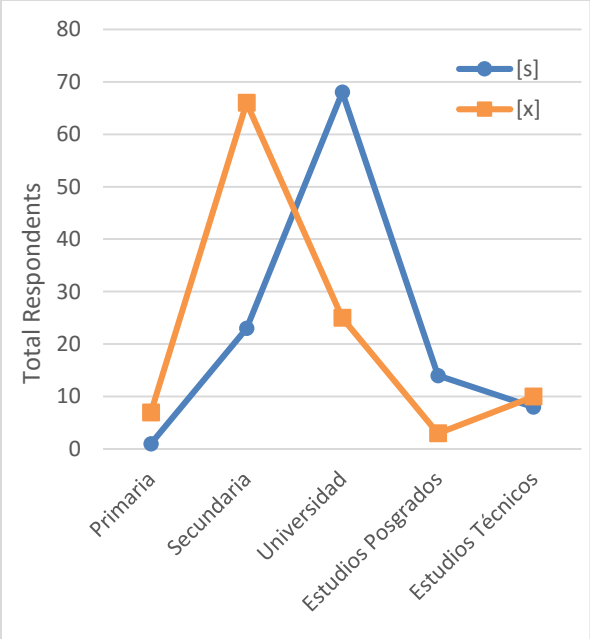


Figure 44: Participants from Madrid, Education ratings

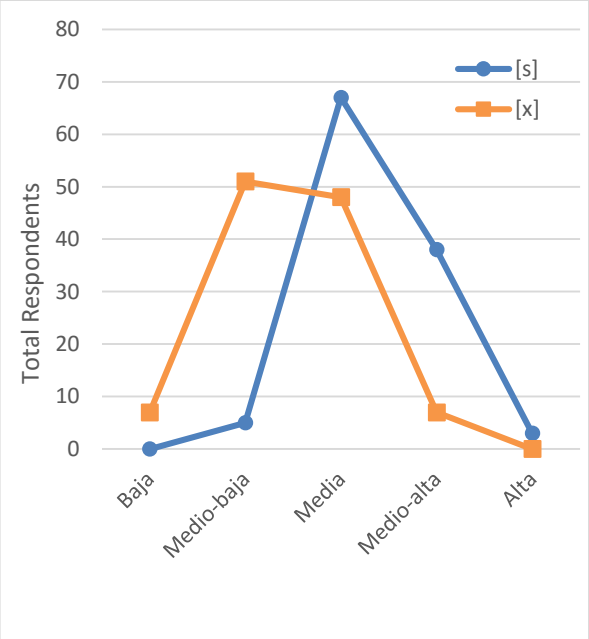


Figure 45: Participants from Madrid, Class ratings

Asturias:

The only education levels that produced a statistically significant difference in speaker rating by Asturianos according to variant was the pair of secondary school versus university level education. This is most likely due, in part, to minimal responses for the other education options of elementary school and graduate school. For the Asturianos, the nonstandard /s/ does affect perceived education level, making speakers 94% more likely to be attributed a high school education level rather than university (β= -2.758, SE= 0.8218, z= -3.356, p= 0.000791).

For class, the model found the /s/ variable for categorization as either lower or lower-middle class highly statistically significant; however, due to very little data for this group, the validity of this finding was doubtful and therefore it is not included here. No other variable effects were found.

Castile and León:

The last autonomous community to associate the velarized /s/ with Madrid was Castile and León. Here, like the data for the Asturianos, primary school and graduate school did not have enough data to properly run the models, but a generalized mixed model with the binomial family and logit link found the variable to significantly condition the judgment of a speaker as either high school or university education level. Similar to the Asturianos, the velarized /s/ increases the odds by 73% of a Castillanoleonés classifying a speaker as having an education level of high school rather than university (β= -1.2973, SE= 0.4671, z= -2.777, p= 0.00548).

The /s/ variable was also indicative of speaker class for the participants from Castile and León with a mild statistical significance for both the comparison of lower-middle and middle class and middle and upper-middle class, p= 0.01132 and p= 0.0105, respectively. For the comparison between judgments of lower-middle class versus middle class, the velarized variant increased the odds of the listener choosing lower-middle class for the speaker by 5.6 times (β= 1.7346, SE= 0.6849, z= 2.533). While maintaining a similar significance level, the pair of middle and upper middle class show a weaker variable effect in which speakers were 86% more likely to be considered as middle class rather than upper-middle class with the velarized /s/ (β= -1.9589, SE= 0.7654, z= -2.559).

Results for Autonomous Communities from which respondents do not associate [x] with Madrid

Castile-La Mancha:

Since the velarized /s/ variant may not be imbued for social meaning for the Manchegos, we would not expect very strong results for education and class judgments. This is certainly true of class, although education level judgments do appear to be influenced by the /s/

variable, for at least high school versus university classifications. A velarized /s/ raises the odds of Manchego listeners identifying the speaker as having a high school education level rather than university by 86% (β= -1.4324, SE= 0.5745, z= -2.493, p= 0.0127).

The Canary Islands:

For the Canary Island participants, the only other group included here whose dialect is characterized by nonstandard /s/ (aspirated variant), the nonstandard /s/ conditioned judgments of education level when comparing those responses for high school versus university level, in which a speaker using velarized /s/ was 73% more likely to be classified as high school education level when compared to university (β= -1.3055, SE=0.3244, z= -4.025, $p \leq 0.001$). Class assignation by the Canarios was significantly affected by the /s/ variable for only one comparison group, middle and upper-middle class. When compared to upper-middle class, the velarized speaker was 80% more likely to be placed in middle class (β= -1.5956, SE= 0.5153, z= -3.096, p= 0.00196).

Catalonia:

For the Catalan participants, the /s/ variable had a highly significant effect on judgments for education, specifically for the comparison group of secondary school versus university level education. As we would expect, the nonstandard variant raises the odds, by 85%, of a speaker being categorized as high school rather than university (β= -1.9039, SE = 0.3673, z= -5.184, $p \leq 0.001$). In the same way, a velarized /s/ also lowers the Catalans' perception of the speaker's class level. Catalans are 3.07 times more likely to place a nonstandard /s/ speaker in lower-middle class rather than middle class (β= 1.1231, SE= 0.3408, z= 3.295, $p \leq 0.001$). Similarly, they are also 79% more likely to consider the velarized /s/ speaker as

middle class when compared to upper-middle class (β= -1.5712, SE= 0.4563, z= -3.443, p≤ 0.001).

Balearic Islands:

The Baleares, the group of participants that showed velarized /s/ to almost deter from identifying a Madrileño, exhibited a highly significant variable effect in which a velarized /s/ increased the odds of the Balearic participant classifying the speaker as secondary school education rather than university by 99% (β= -4.219, SE= 1.162, z= -3.631, p ≤0.001). The only class group comparison that produced statistically significant results was that of lower-middle class versus middle class. This may be due in part to the minimal data for lower class (only 4 tokens for [x] and none for [s]), very little velarized /s/ data for upper-middle class (only 4 for [x]), and no classifications for either variant for upper class. The influence on class judgment for the significant pair is quite strong: a velarized /s/ speaker heard by a Balearic participant was 34 times more likely to be placed in the lower-middle class category rather than middle class (β= 3.533, SE= 1.162, z= 3.041, p= 0.00236).

3.5.2.4 Preferences for personal and professional relationships

Madrid:

Madrileños themselves feel quite strongly about the /s/ variable, a nonstandard variant negatively affecting their preference for all three relationships presented, that of friends, colleagues and employees. Preference for friendship (β= -0.5853, SE= 0.1553, t(170.63)= -3.769, p≤0.001) and working with someone as colleagues (β= -1.2176, SE= 0.1736, t(166.96)= -7.015, p≤0.001) were conditioned directly by the variable, whereas preference

for hiring a speaker as an employee presented an interaction between the /s/ variable and respondent gender: It was the Madrileño women who were most opposed to hiring a nonstandard variant speaker (β= -0.9459, SE= 0.3715, t(162.51)= -2.546, p=0.0118).

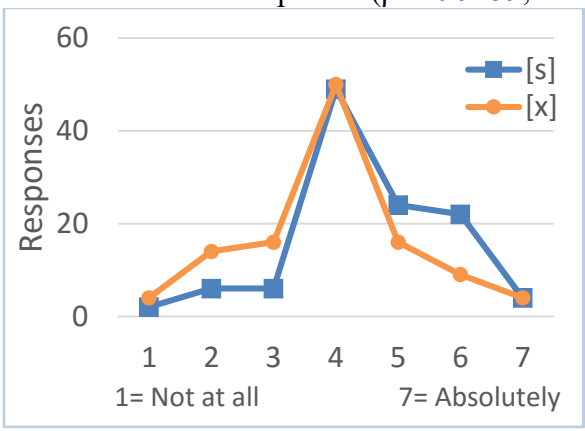


Figure 46: Participants from Madrid, preference for Friendship

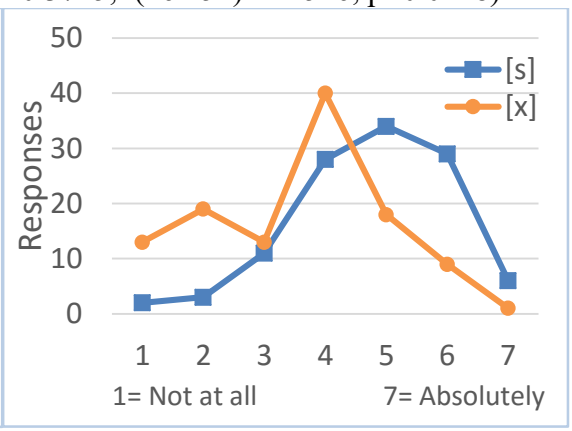


Figure 47: Participants from Madrid, preference for Colleague

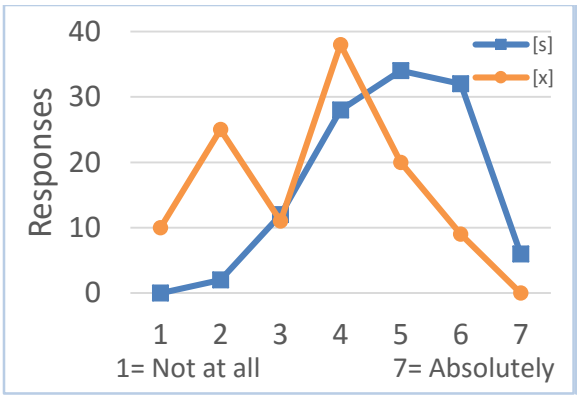


Figure 48: Participants from Madrid, preference for Employee

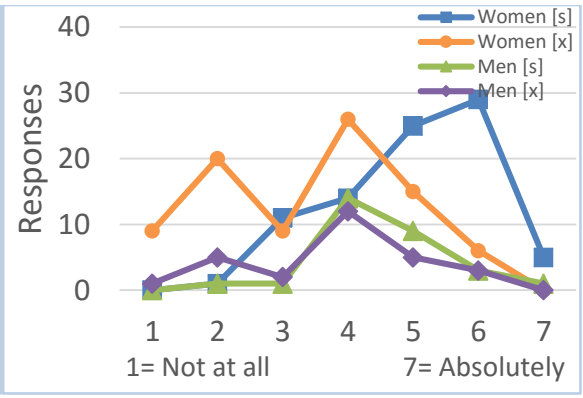


Figure 49: Participants from Madrid, preference for Employee, per respondent gender

Asturias and Castile and León:

For the other two autonomous communities where participants associated the velarized /s/ with Madrid, the nonstandard variant also negatively affected preference for friends, colleagues and employees; however, the results were not as strongly significant for

friendship as those for Madrid. For Asturianos, the effect of the velarized /s/ on preference for friendship is significant at the $p \leq 0.01$ level (β= -0.798, SE= 0.2342, t(57.86)= -3.407, p= 0.0012), while preferences for colleagues (β=-1.025, SE= 0.252, t(75.06)= -4.067) and employees (β= -1.275, SE= 0.2333, t(57.85)= -5.466) are significant at the $p \leq 0.001$ level. Castile and León participants present similar results, with friendship preferences even less strongly significant at the $p \leq 0.05$ level (β= -0.485, SE= 0.1985, t(80.25)= -2.443, p= 0.0167), with preferences for a speaker as a coworker (β= -0.7974, SE= 0.2233, t(79.31)=-3.571, $p \leq 0.001$) or for hiring a speaker (β= -0.9972, SE= 0.2267, t(76.8)= -4.4, $p \leq 0.001$) comparable to those of the Asturianos.

Castile- La Mancha, the Canary Islands, Catalonia and the Balearic Islands:

Castile-La Mancha is the first of the group of regions for which a velarized /s/ does not help in identifying a Madrileño. This group is also special because we have seen that participants in fact associate this variant with themselves and it does not appear to be marked for Manchegos the way that it is for Madrileños. This finding is reflected in the relationship preferences of the Manchegos. Unlike all other groups, except the Canarios, Manchegos are not influenced by the /s/ variable in their preference for friendship with the speaker. The nonstandard variant does negatively affect preference for the speaker as a colleague, but the statistical significance of this effect is not nearly as strong as it is for all other groups (β= -0.7154, SE= 0.2792, t(57.05)= -2.562, p= 0.0131). Surprisingly, the /s/ variable's influence on preference for hiring a speaker is so weak that it does not meet the Bonferroni corrected significance level of 0.0125 (β= -0.5836, SE= 0.2671, t(57.65)= -2.185, p= 0.032968).

The Canary Islands, another nonstandard /s/ using dialect (in this case, /s/ > [h]), is the only other group for which preference for friendship with the speaker is not affected by the velarized /s/. Unlike the Manchegos, however, the statistical significance for the effect on preference for having the speaker as a co-worker and for hiring the speaker is much stronger, a velarized /s/ lowering preference for both colleagues (β= -0.9035, SE= 0.1859, t(148.55)= -4.861, $p \leq 0.001$) and employees (β= -1.087, SE = 0.1875, t(152.66)= -5.539, $p \leq 0.001$). For the participants from Catalonia and the Balearic Islands, the nonstandard /s/ negatively affects preference for all three categories at the highest significance level, $p \leq 0.001$ (Catalonia: β= -.07072, SE= 0.1404, t(192.16)= -5.036 ; β= -1.1608, SE= 0.1574, t(191.38)= -7.375 ; β= -1.3692, SE= 0.1645, t(191.61)= -8.325, Balearic Islands: β= -0.9256, SE= 0.2102, t(87.87)= -4.403 ; β= -1.2914, SE= 0.2239, t(83.69)= -5.767 ; β= -2.3125, SE= 0.3986, t(78.41)= -5.802). Furthermore, the data for the Balearic participants produced a significant interaction between the variable and respondent gender in their preferences for hiring the speaker, in which, unexpectedly, it is the male listeners that are much less apt to hire a velarized /s/ speaker. While both genders of Balearic listeners are negatively influenced by the variant in their preferences for hiring the speaker, the effect for the men is double that of the women (β_v= -2.3125, SE_v= 0.3986, t_v (78.41)= -5.802, $p_v \leq 0.001$; β_i= 1.1942, SE_i= 0.4729, t_i (78.98)= 2.525, p_i=0.0136) .

3.5.2.5 Did you like how the story was told, and do you think you would get along with the speaker?

Madrid:

When Madrileños were asked if they liked the way the story was told, the odds of them saying yes decreased by 78% when the velarized /s/ was used (β= -1.5391, SE = .3234, z

= -4.759, p≤ 0.001). Likewise, the odds of a Madrileño saying they would get along with the speaker decreased by 53% with the nonstandard variant (β= -1.5138, SE= .4229, z= -3.579, p≤0.001). Expecting the nonstandard variant to hold affective capital, this second highly significant result is surprising and telling of the stigma the velarized /s/ holds for the Madrileño participants. These results are presented below in Figure 50 and Figure 51[66].

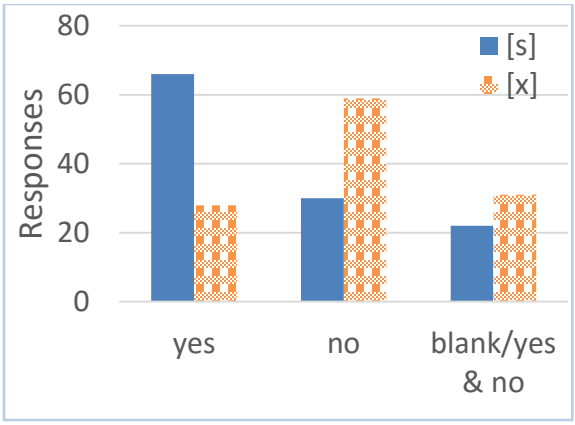


Figure 50: Participants from Madrid, Did you like the narration?

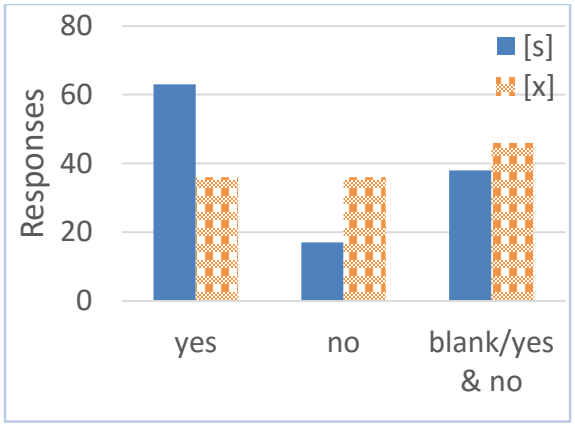


Figure 51: Participants from Madrid, Do you think you would get along with the speaker?

Asturias and Castile and León:

Curiously, although both Asturianos and Castillanoleoneses find the velarized variant to be indicative of a Madrileño identity, the nonstandard variant does not seem to have as negative of an effect for these questions as for the Madrileños themselves. While the velarized variant did decrease the odds of the Asturiano participants liking the way the

[66] Responses were coded as 'yes and no' for both "Did you like how the story was told?" and "Do you think you would get along with the speaker?" when (1) they included both positive and negative responses in one, e.g.: *"Puede que si [sic] porque parece una persona sería [sic] cuando tiene que serlo, y no, porque parece que es un poco arisco, frío."*, (2) they responded "yes" but followed with an explanation that conveyed a negative response without directly saying "no",e.g.: *"Si [sic], pero lo justo nada de una relación muy fuerte."* or *"Si [sic] pero creo que le ha faltado algo"* or (3) a neutral response, e.g.: *"Me ha resultado indiferente, no me ha llamado la atención."*

story was told by 93%, significant at the highest level (β= -2.644, SE= 0.6762, z= -3.91, p≤0.001), nonstandard /s/ has no effect at all on whether Asturianos thought they would get along with the speaker. The responses of the Castillanoleoneses for both whether they liked the way the story was told and whether they thought they would get along with the speaker were influenced by the nonstandard /s/, albeit with not as strongly significant as the Madrileño data. A Castillanoleonés's odds of liking a story version decreased by 64% with the velarized variant (β= -1.0296, SE= 0.5024, z= -2.05, p=0.04041), and in the same way, the odds of a participant from Castile and León claiming that they would get along with the speaker also decreased, this time by 76%, with nonstandard /s/ (β= -1.4383, SE= .6565, z= -2.191, p = 0.02846).

Castile- La Mancha, the Canary Islands, Catalonia and the Balearic Islands:

As we might expect from the results thus far, both participants from Castile-La Mancha and from the Canary Islands were not significantly influenced by the nonstandard variant in their decision of whether or not they thought they would get along with the speakers. It should be noted, however, that the influence of the velarized /s/ was statistically significant at the p≤0.05 level for both Manchegos and Canarios in the decision of liking the story or not: Manchegos were 77% less likely to like the story with nonstandard /s/ (β= -1.4509, SE= 0.6726, z= -2.157, p= 0.031) and likewise the odds of a Canario liking the story decreased by 58% with nonstandard /s/ (β= -0.8703, SE = .3486, z= -2.496, p= 0.0126).

For Catalan and Balearic participants, the /s/ variable affected both judgments of narration appeal and compatibility with the speaker. A Catalan was 86% less likely to like the way the speaker told the story with velarized /s/ (β= -1.9917, SE= 0.3787, z= -5.259, p≤0.001) and similarly, 82% less likely to say they would get along with the velarized /s/ speaker (β= -1.7025, SE = 0.3745, z= -4.546, p ≤0.001). The Baleares were 93% less likely

to like the story with nonstandard /s/ (β= -2.6835, SE 0.7943, z= -3.378, p≤0.001) and although their odds of thinking they would get along with the speaker lowered by 76% with nonstandard /s/, interestingly this result was not as strongly significant as the results for the Catalan participants (β= -1.4119, SE= 0.5788, z= -2.439, p= 0.014715).

3.5.2.6 Did you notice anything about this person's speech in particular that influenced the judgments you made?

Madrid:

Among the participants from Madrid, a concept of *correctness* arose within the data, the descriptor *correcto* appearing for the standard /s/ guises, and *incorrecto* among the velarized /s/ guises. A total of 24.4% of the responses provided by Madrileños mention that the standard /s/ speaker either spoke well (e.g., *habla bien*) or correctly (e.g. *muy correcta*), compared to the velarized /s/ speaker guises in which 16% of the respondents observed that the speaker spoke incorrectly (e.g. *la manera de hablar me parece incorrecta*) or pronounced the words wrongly (e.g. *pronuncia mal*). While the Madrileños are among those participants that most observed the standard /s/ speakers to use correct speech, they are indeed the group that most commented on the *incorrectness* of the velarized /s/ speaker guises' speech. As far as specifying the velarized /s/ as an aspect of the speaker's speech that influenced their judgments, 29.7% of the respondents from Madrid noted the nonstandard /s/ variant, placing them in a lower percentage than their non-aspirating variety counterparts but at the highest percentage of observance among those respondents of nonstandard /s/ using dialects. Lastly, it is interesting to note that some Madrileño participants (7%) observed their fellow Madrileño speakers to be from the north of Spain

(e.g., *con un poco acento del norte*, *con un fuerte acento gallego* or *pueda ser del norte*) with standard /s/, but with velarized /s/ 13.5% noted that the speaker was also Madrileño. Lesser mentions of notable accent origins did not include the North, but rather a general *del centro* or a Manchego (Castile-La Mancha) accent.

Asturias and Castile and León:

Asturias and Castile and León are the two Autonomous Communities which most often mention the velarized /s/ when asked about particular speech traits of the speaker. This fact, however, does not translate into perceiving *incorrectness* like the Madrileños. The same percentage of Asturianos as the Madrileños declared the standard /s/ speaker to speak well or correctly at 25%, while only 5% of the Asturianos claim the velarized /s/ speaker to speak incorrectly, despite being the group that most often highlights the variant as a noticeable speech trait. The Castillanoleoneses do not mention incorrectness at all, 9% of them stating that the standard /s/ speaker spoke correctly and still 5.5% claiming correctness of speech even for the velarized /s/ speaker. Here we see that for these two regions that most strongly notice the velarized /s/ in use, it is not considered a sign of incorrectness. As the two regions that associate the variant with Madrid, echoing what we have seen in the variable effect on judgments, the velarized /s/ appears to simply be a variant associated with the Madrid accent without much social stigma attached. 38.9% of the Castillanoleoneses and 26.3% of the Asturianos reference a Madrid origin with the velarized /s/ speakers (compared to 9% of the Castillanoleoneses and no Asturianos for standard /s/), and most of these appear alongside a mention of the velarized /s/ variant, for instance, “He decidido que sea de Madrid por su ‘eg que’” (I have decided he is from Madrid because of his “eg que”).

Castile- La Mancha, the Canary Islands, Catalonia and the Balearic Islands:

Following the trend presented throughout this section, the two varieties which have a nonstandard /s/ themselves are among those that least noted the velarized /s/ as a specific speech trait influencing their speaker judgments, with 26.7% of Manchegos and 21% of the Canarios mentioning the variant. Furthermore, while 18.8% of the Manchegos claim that the standard /s/ speaker spoke correctly, no mention of incorrectness was made for the velarized /s/ speaker. Based on the results thus far for the Manchego participants, this is entirely in line with velarized /s/ not being negatively marked for Manchegos. Likewise, 12.2% of Canarios proclaim the standard /s/ speaker to speak well or correctly and no mention of incorrectness is made for the velarized /s/ speakers. In fact, a small percentage, 5.3%, of Canarios also mentioned the correctness of the velarized speaker's speech. It is interesting that a Madrileño origin was observed twice for both the Manchego and Canario velarized /s/ respondent data. In the case of the Canarios, both mentions were accompanied with the highlighting of velarized /s/, for example "Muchas veces tiene la "s" final de sílaba madrileña (pronunciada como una "j")" (Many times she has the Madrileño syllable-final "s" (pronounced like a "j")). One of the Manchego responses, however, cites the pronunciation of *s como j* as a trait of Madrid, Castile-La Mancha and Extremadura. The second Manchego mentioning Madrid states "Me parece madrileña, aunque habla con dejes castellanos" (I think she's Madrileña, although with some Castilian touches/accents), which leaves it unclear *which* aspects lead the respondent to identify the speaker as Madrileña and whether the velarized /s/ in this case is one of the "Castilian touches" to which he is referring.

When compared to Castile-La Mancha and the Canary Islands, the Autonomous Communities of Catalonia and the Balearic Islands are more aware of the velarized /s/, or at least specify the variant as a salient speech feature, with 31.8% of the Catalans and 38.9%

of the Baleares making mention of the nonstandard /s/. Both the Catalans and the Baleares noted correct speech with standard /s/ speakers, while only the Catalans observed that the velarized /s/ speakers spoke incorrectly. Although 11.4% of the Catalans stated that the nonstandard variant speech was not good or correct, unlike the Madrileños, nearly half of these claims were made in a rather attenuated form, such as "no es un castellano ejemplar" (it is not exemplary Spanish) or "su pronunciación de ciertas palabras es mejorable" (Her pronunciation of certain words could be better). Interestingly, 6.8% of the Catalans also declared the velarized /s/ speakers' speech to be correct. Lastly, while both Catalans and Baleares observed the velarized speaker to be from Madrid, 13.6% and 11.1% respectively, only one participant from each community accompanied this observation with a reference to the velarized /s/. Rather, of the 9% of the Catalans that specified that speaker to be from the south of Spain, half of these made this claim in conjunction with highlighting the nonstandard pronunciation of /s/, for example "se le nota algunos rasgos típicos del sur de la peninsula cuando pronuncia las S antecedentes a algunas consonants" (One notes some traits that are typical of the southern part of the peninsula when she pronounces the s's before some consonants). Similarly, three quarters of the 22% of Baleares detailing a Southern origin for the velarized /s/ speaker did so accompanied with a mention of the nonstandard /s/, for instance "cuando decía busca o bosque he notado un acento del sur" (when he said *busca* or *bosque* I noted an accent from the South). Unlike the other regions, participants from Catalonia and the Balearic Islands seem to associate the nonstandard /s/, even in its velarized form, with southern Spain.

3.5.2.7 Summary

In examining the data through the lens of respondent origin, we first saw that among the seven Autonomous Communities with the largest participant representation, three, including Asturias, Castile and León and Madrid itself, showed the velarized /s/ variant to have a significant effect in aiding to identify a Madrileño speaker. The communities of Castile-La Mancha, the Canary Islands, Catalonia and the Balearic Islands did not show a significant variable effect in Madrileño identification. Among the communities that associated velarized /s/ with Madrid, it was found that the /s/ variable had a significant effect on the judgment of six personal characteristics for the Madrileños, making the velarized /s/ speakers less intelligent, lazier, meaner, colder, less reliable and more of bad/tough guys. The Asturianos and Castillanoleoneses participants both showed a significant effect from the nonstandard variant in the judgments of personal characteristics, the Asturianos considering the velarized /s/ speaker less intelligent, lazier and colder, and the Castillanoleoneses judging the nonstandard /s/ guises to be less intelligent, lazier and less reliable. Among the communities that did not associate velarized /s/ with Madrid, Castile-La Mancha stands out as the only community whose participants did not display a *single* /s/ variable effect on the personal characteristic judgments. As for the rest, the Canarios showed a variable influence for four characteristics, viewing the velarized /s/ speaker as less intelligent, lazier, less reliable and more of a bad/tough guy, while both the Catalan and Balear participants demonstrated that the /s/ variable conditioned their response for six characteristics, a velarized /s/ speaker being viewed as less intelligent, lazier (male /s/ > [x] speaker guises only), colder, more insecure, less reliable and more of a bad/tough guy by the Catalans and the nonstandard /s/ guises considered less intelligent, lazier, more insecure, not as good of a person, less reliable and more of a bad/tough guy by

the Baleares. Summarized results for personal characteristic judgments broken down by participants from all seven communities are presented below in Table 2.

	*** Traits	** Traits	Total	
Communities that associate velarized /s/ with Madrid				
Madrid	Less intelligent Lazier Meaner Colder Less reliable More bad/tough guy		6***	**6**
Asturias	Less intelligent Lazier Colder		3***	**3**
Castile and León	Less intelligent	Lazier Less reliable	1*** 2**	**3**
Communities that do not associate velarized /s/ with Madrid				
Castile-La Mancha			0	**0**
Canary Islands	Less intelligent Lazier Less reliable More bad/tough guy		4***	**4**
Catalonia	Less intelligent Less reliable More bad/tough guy	Lazier (Male speakers only) Colder More insecure	3*** 3**	**6**
Balearic Islands	Less intelligent Lazier Less reliable	More insecure Less of a good person More bad/tough guy	3*** 3**	**6**

Table 2: Personal traits associated with velarized /s/ according to participant group results;
Bonferroni cut off for significance in personal trait category of dependence: $p \leq 0.00416$

Next, participants from all of the seven aforementioned Autonomous Communities showed a significant /s/ variable effect in education level judgments, specifically for the categorization as a high school level of schooling rather than university level, the velarized variant always causing the speaker more likely to be ascribed a secondary school level

rather than university. Among those communities that associated the velarized /s/ with Madrid, Madrileños were 89% more likely to assign the velarized speaker guise a high school level, the Asturianos 94% and the Castillanoleoneses 74%. Among those communities that did not associate the velarized /s/ with Madrid, the Manchegos were 86% more likely to consider the nonstandard /s/ speaker guise of a secondary education level, the Canarios 73%, the Catalanes 85% and the Baleares 99%. Other levels of education were either not significantly affected by the /s/ variable for some communities or did not have enough data to be able to run the analyses. Summarized results for education level judgments broken down by participants from all seven communities are presented below in Table 3.

	***Percent more likely to be judged as high school	**Percent more likely to be judged as high school	*Percent more likely to be judged as high school
Communities that associate velarized /s/ with Madrid			
Madrid	89%		
Asturias	94%		
Castile and León		74%	
Communities that do not associate velarized /s/ with Madrid			
Castile-La Mancha			86%
Canary Islands	73%		
Catalonia	85%		
Balearic Islands	99%		

Table 3: Education judgments- Percent more likely to judge a velarized /s/ speaker as high school rather than university level education -according to participant group results; Bonferroni cut off for significance in education level category of dependence: $p \leq 0.0166$

For the categorization of socioeconomic class for the speaker guises, all but two community participant groups, Asturias and Castile-La Mancha, demonstrated a significant /s/ variable effect. Among those communities associating velarized /s/ with Madrid,

Madrileños not only showed a variable effect but significant interactions between the /s/ variable and both speaker sex and respondent gender. When comparing classifications of lower-middle to middle class, Madrileños were slightly more likely to consider female velarized /s/ speakers as lower-middle class, although the effect is still quite strong for both genders. In the same way, both men and women Madrileños considered the velarized speaker as lower-middle class, the effect stronger for women, with the additional result of female listeners being more likely to assign a higher class to standard /s/ speaker guises. Next, Madrileños also showed a significant variable effect when comparing middle class to upper-middle class categorizations, a velarized /s/ speaker 74% more likely to be considered middle class. Castillanoleoneses also showed a /s/ variable effect in their class when comparing lower-middle and middle class as well as middle and upper-middle class, a velarized /s/ speaker 5.6 times more likely to be classified as lower-middle class for the first grouping and 8.6% more likely to be considered middle class for the second. Among those communities that did not associate velarized /s/ with Madrid, a significant variable effect was seen in the judgments of lower-middle class when compared to middle class for both Catalans and Baleares, a Catalan participant 3.07 times more likely to consider the speaker lower-middle class and the Baleares 34 times more likely to make the same judgment. As for the variable influence in judgments of middle class when compared to upper-middle class, Canarios were 80% and the Catalans 79% more likely to categorize the velarized /s/ speaker guises as middle class. Summarized results for class judgments broken down by participants from all seven communities are presented below in Table 4.

Communities that associate velarized /s/ with Madrid	*** Class ratings	** Class ratings	*Class ratings	Total	
Madrid	Lower-middle vs middle, Compared to female [s] speaker: Male [x] speaker: 10.88x Female [x] speaker: 11.39x Male [s] speaker: 1.66x Lower-middle vs middle, Compared to male [s] listener: Male [x] listener: 11.39x Female [x] listener: 14.79x Female [s] listener: 57%	Middle vs Upper-middle: 74%		1*** (2 interactions) 1**	**2**
Asturias				0	
Castile and León			Lower-middle vs middle: 5.6x Middle vs Upper-middle: 86%	2*	**2**
Communities that do not associate velarized /s/ with Madrid					
Castile-La Mancha				0	
Canary Islands		Middle vs Upper-middle: 80%		1**	**1**
Catalonia	Lower-middle vs Middle: 3.07x Middle vs Upper-Middle: 79%			2***	**2**
Balearic Islands		Lower-middle vs Middle: 34x		1**	**1**

Table 4: Class judgments- Odds of a speaker being judged as a particular class with velarized /s/ according to participant group results (odds always favor the lower class of the pair presented); Bonferroni cut off for significance in the class category of dependence: $p \leq 0.0125$

Next, participants from all seven communities presented a significant variable influence in at least one relationship preference. Among those communities that associated velarized /s/ with Madrid, all three, Madrid, Asturias and Castile and León, showed a significant variable effect on the preferences for all three types of relationships, friendship, colleagues and employee. The difference among these participants laid in that although the velarized /s/ negative effect on preference for the speaker as a colleague and employee were both significant at the highest level for all three communities, the variable effect for friendship was not as strongly significant for Asturianos and even less so for Castillanoleoneses. Among those communities that did not associate velarized /s/ with Madrid, only Catalan and Balearic participants displayed an influence from the /s/ variable for all three relationships, significant at the highest level, the velarized /s/ negatively affecting preferences. Manchegos were only influenced (negatively) by the velarized /s/ in their preferences for a speaker as a colleague, and the Canarios for colleague and employee preferences. Summarized results for personal and professional relationship preferences broken down by participants from all seven communities are presented below in Table 5.

Communities that associate velarized /s/ with Madrid	*** Relationship preference	** Relationship preference	* Relationship preference	Total	
Madrid	Friendship Colleague Employee (for female listeners)			3***	**3**
Asturias	Colleague Employee	Friendship		2*** 1**	**3**
Castile and León	Colleague Employee		Friendship	2*** 1*	**3**
Communities that do not associate velarized /s/ with Madrid					
Castile-La Mancha			Colleague	1*	1
Canary Islands	Colleague Employee			2***	**2**
Catalonia	Friendship Colleague Employee			3***	**3**
Balearic Islands	Friendship Colleague Employee			3***	**3**

Table 5: Relationship preferences- Relationships negatively affected by velarized /s/ according to participant group results (Participants are less likely to prefer the velarized speaker in the relationships listed); Bonferroni cut off for significance in the class category of dependence: $p \leq 0.0166$.

As for participant preference for the speaker guises' narrations, the /s/ variable played a significant role in the judgments of participants from all seven communities. In every case the participants were less likely to say they liked the story, Madrileños by 78%, Asturianos by 93%, Castillanoleoneses by 64%, Manchegos by 77%, Canarios by 58%, Catalans by 86% and Baleares by 95%. Respondent origin appears to play a stronger role in the /s/ variable effect on whether the participants thought they would get along with the speaker. Among those communities that associate velarized /s/ with Madrid, Madrileños were 53%, and Castillanoleoneses 76%, more likely to say no with nonstandard /s/, while Asturianos show no significant /s/ variable conditioning for this question. Among those

communities that did not associate velarized /s/ with Madrid, like the Asturianos, both the Manchegos and the Canarios did not show a significant /s/ variable effect. The Catalans and the Baleares, on the other hand, were more likely to say they would not get along with the velarized speaker guises, Catalans by 82% and Baleares by 76%. Summarized results for both judgments broken down by participants from all seven communities are presented below in Table 6 and Table 7.

	***Did you like how the speaker told the story?	**Did you like how the speaker told the story?	*Did you like how the speaker told the story?
Communities that associate velarized /s/ with Madrid			
Madrid	-78%		
Asturias	-93%		
Castile and León			-64%
Communities that do not associate velarized /s/ with Madrid			
Castile-La Mancha			-77%
Canary Islands			-58%
Catalonia	-86%		
Balearic Islands	-95%		

Table 6: Narration preference- Percent listeners are less likely to care for how the story was told by velarized /s/ speaker according to participant group results. As the category of dependence only had one level, yes or no, there is no Bonferroni correction.

	***Do you think you would get along with the speaker?	**Do you think you would get along with the speaker?	*Do you think you would get along with the speaker?
Communities that associate velarized /s/ with Madrid			
Madrid	-53%		
Asturias			
Castile and León			-76%
Communities that do not associate velarized /s/ with Madrid			
Castile-La Mancha			
Canary Islands			
Catalonia	-82%		
Balearic Islands			-76%

Table 7: Compatibility with speaker- Percent listeners are less likely to say they would get along with a velarized /s/ speaker according to participant group results. As the category of dependence only had one level, yes or no, there is no Bonferroni correction.

Lastly, in comparing the specific speech traits observations each group of participants mentioned as influencing their judgments, participants from all seven communities compared mentioned correctness for the standard /s/. The Madrileños were among the top three to explicitly note the correctness of the standard /s/ speaker with 24% of the participants mentioning it. Asturianos topped the group with 31.3%, although it should be mentioned that 15.8% of Asturianos also noted that the velarized /s/ speaker spoke correctly. The same was true of Castillanoleoneses, with 9% mentioning correctness with standard /s/ and 5.5% with velarized /s/. Castile-La Mancha participants noted speech correctness 18.8% of the time, while 12.2% of Canarios wrote that the standard /s/ speaker spoke correctly, in addition to 5.3% of Canarios noting that the velarized /s/ speaker also spoke correctly. Similarly, 12.5% of Catalan participants mentioned that the standard /s/ speaker had correct speech, while 6.8% noted that the velarized /s/ speaker spoke correctly. Lastly, the Balearic participants were the group to most mention correctness, only with standard /s/ however, at 31.8%. None of the participants observed *incorrectness* for the

standard /s/ speakers, although three of these did for the velarized speaker. 16% of Madrileños stated that the velarized /s/ speaker's speech was incorrect, while 5% of Austrianos and 11.4% of the Catalans noted this as well.

Next, the autonomous communities that associate velarized /s/ with Madrid are those that most mention this particular variant in their comments on the speaker's speech, Madrid being an exception to this rule. Half of the Asturiano participants, 50%, and 58% of the Castillanoleoneses noted the nonstandard /s/, while only 29.7% of Madrileños commented about the variant. Among those communities that did not associate velarized /s/ with Madrid, Catalan and Balearic participants mentioned the nonstandard variant fairly often, 31.8% and 38.9% respectively, while the two populations which use nonstandard /s/ as well were those which least mentioned it, Manchegos 26.7% of the time and Canarios 21%.

	Notes correctness [s]	Notes correctness [x]	Notes incorrectness [s]	Notes incorrectness [x]
Communities that associate velarized /s/ with Madrid				
Madrid	24%			16%
Asturias	31.3%	15.8%		5%
Castile and León	9%	5.5%		
Communities that do not associate velarized /s/ with Madrid				
Castile-La Mancha	18.8%			
Canary Islands	12.2%	5.3%		
Catalonia	12.5%	6.8%		11.4%
Balearic Islands	31.8%			

Table 8: Percent of participants that mention correctness in their observation of the speaker's manner of speech according to participant group results.

Communities that associate velarized /s/ with Madrid	Notes nonstandard /s/
Madrid	29.7%
Asturias	50%
Castile and León	58%
Communities that do not associate velarized /s/ with Madrid	
Castile-La Mancha	26.7%
Canary Islands	21%
Catalonia	31.8%
Balearic Islands	38.9%

Table 9: Percent of participants that mention the nonstandard /s/ in their observation of the speaker's manner of speech according to participant group results.

3.6 CONCLUSION

In this chapter, the results from the language attitudes perception study were presented. First it was established that the velarized /s/ is indeed associated with Madrid in that it significantly helps listeners to correctly identify a Madrileño speaker. Moreover, the overall results showed a very strong effect from velarized /s/ in how speakers were judged. Before accounting for speaker sex, respondent gender and respondent origin, every characteristic, with the exception of *gracioso*, presented to listeners were significantly conditioned by the /s/ variable in the listener's judgments of the speaker. When compared to the ratings of standard /s/ speaker guises, the velarized /s/ speaker guises were deemed less intelligent, lazier, harsher, meaner, colder, more boring, more insecure, less reliable, less serious, more of a bad/tough guy and in general not as good of a person. Furthermore, velarized /s/ was associated with lower education and class, and relatedly lower-level professions. In addition, participants were less likely to want the nonstandard variant

speaker guises as friends, colleagues and employees, as well as less likely to care for their narration or to think they would get along with the speaker. The identities ascribed to the velarized /s/ speaker guises by the listener participants are clearly negative.

Next, an exploration of the data through the lens of speaker sex uncovered important findings that were not shown in the preliminary analysis. Here we found that the original result of velarized /s/ leading a speaker to be view as more insecure is only true for male speakers. Even more important was the finding that the adjective pair of cold/loving showed *opposite* results for male speakers, in which rather than the velarized /s/ having a negative effect and conditioning a judgment of a colder person, the nonstandard variant actually helps the male speaker to be considered more loving. This same effect was seen for the descriptor *reliable* when this adjective was considered to have a meaning of *trustworthy*. We also saw that among perceived education level and profession, velarized /s/ may suggest a certain "competence" for female speakers in that although velarized /s/ is still viewed negatively, this is not the case for all females, and it has been hypothesized that perhaps the more "masculine" velarized /s/ gives women more access to the assumed competence awarded to men. These more nuanced insights into the social meaning associated with velarized /s/ would have been overlooked without considering speaker gender in the analysis.

Following the analysis focused on speaker sex, respondent gender was considered in which the data clearly supports the classic sociolinguistic premise that women are more concerned with standard speech than are men. For several traits, velarized /s/ presented a stronger effect in conditioning a negative judgment from the female listener participants. Furthermore, standard /s/ proved to hold prestige for the women listeners, producing a positive effect in their judgments of the speaker guises. An additional difference between men and women listeners appeared in the relationship preferences, where it was seen that

the /s/ variable does not influence male listener judgments for friendship preference. For women, in contrast, both velarized and standard /s/ had a highly significant effect on whether they preferred to be friends with a speaker; this influence was negative and positive, respectively. Interestingly, the /s/ variable influence on judgments of speaker class and education did not differ among participant gender.

Finally, the data was examined through the lens of respondent origin, in which it was found that velarized /s/ is not indicative of Madrileño identity for all listener respondents, but rather only for Asturianos, Castillanoleoneses and Madrileños themselves. The other participant regions considered in the analysis, Castile-La Mancha, the Canary Islands, Catalonia and the Balearic Islands did not associate velarized /s/ with Madrid. Among those participants that consider velarized /s/ a Madrileño variant, Madrileños showed the strongest negative variant effect. They find the velarized speaker less intelligent, lazier, meaner, colder, less reliable and more of a tough/bad guy. Madrileños also judged the velarized /s/ speaker as lower education and class and did not care to have the nonstandard speaker as a friend, colleague nor employee. They did not like how the velarized /s/ speakers told the story, nor did they think they would get along with them. Lastly, out of all the Autonomous Communities considered, they were the group of participants to most often note that the velarized /s/ speaker's manner of speech was incorrect. These findings suggest that unlike some other participants, Madrileños are very aware of the velarized /s/ variant and view it very poorly. Certain affective judgments, however, were not negatively affected by the velarized variant. Even so, we did not see here explicit evidence of covert velarized /s/ prestige for the Madrileños.

The other two regions associating velarized /s/ with Madrid, Asturias and Castile and León, are the communities whose participants most often provided comments noting the nonstandard /s/ variable; nonetheless, this variant does not condition as strongly

negative speaker judgments when compared to Madrileños and thus does not appear to be as stigmatized for the Asturiano and Castillanoleonés participants. In other words, unlike the findings of Walker et al. (2014) in which the indexical field of the /s/ variants was shared between the dialects of study, here it appears to differ among the Spanish dialects. A question that arises, however, with the speaker judgment results of the Asturiano and Castillanoleonés listeners is whether these judgments reflect their views of Madrileños in general, or a particular *kind* (velarized /s/ speaker) of Madrileño. While the nonstandard /s/ is clearly indicative of a specific kind of Madrileño identity for Madrileños themselves, it is unclear if this is the case for their northern neighbors.

In this chapter, it has been clearly shown that the /s/ variable has a significant effect on how a Madrileño speaker is viewed, although the extent of this effect seems to be quite dependent upon respondent origin as well as gender. Furthermore, velarized /s/ has been confirmed as a marker of Madrileño identity, corroborating the trends initially seen in the pilot CMC[67] study in which velarized /s/ is purposefully represented orthographically as a local identity marker of Madrid. With a greater understanding of how the /s/ variable is perceived, in the next chapter we will explore /s/ variation in production, looking at the linguistic and social factors that condition the realization of /s/.

[67] See Chapter 2, section 2.5.

Chapter 4: Production study

In complement to the perception study, a production study was conducted in order to ascertain the different variants of nonstandard /s/ used in Madrileño speech and the linguistic and extralinguistic factors that condition their use. The data comprised six hours of reading task recordings from fifty different Madrileño speakers, which was later submitted to a segmental analysis using the discrete cateogries of [s], [h], [ø] and [x]. In this analysis, generalized linear mixed models were used to discover the statistically significant factors that influenced the realization of the discrete variants of /s/.

The current chapter begins in section 4.1 with the research questions and hypotheses guiding the study, followed in section 4.2 by an explanation of the methodologies used in data collection and analysis. Next in section 4.3 the results are detailed, presenting a general overview of the distribution of the data in §4.3.1, followed by the results of the analyses in §4.3.2 Finally, a comparison between the current study's results and those of previous studies is offered in section 4.4 before concluding the chapter in section 4.5.

4.1 Research questions and hypotheses

The production portion of this project sought to identify the nonstandard /s/ variants used in Madrileño speech and discover the linguistic and extralinguistic factors conditioning variant use. The research questions guiding this investigation include:

i. Do speakers prefer velarization (/s/ > [x]) to aspiration (/s/ > [h]), and if not, do the two variants appear in complementary distribution?
ii. What are the linguistic factors affecting the coda /s/ variable?

iii. Do the contexts of variant use change according to traditional sociolinguistic categories (e.g. sex, age, education)?

iv. Do speakers differ in their variant use in reading a wordlist based on the content of a specific word or phrase?

The first research question (i) was born out of the fact that previous studies of nonstandard /s/ in the Madrid dialect have not clearly established the variant(s) being used. While Lipski (1986) and Turnham and Lafford (1995) cite velarization as occurring before voiceless velar consonants, it was expected that velarization would be found to have expanded into more linguistic contexts as noted in Momcilovic (2005). It was postulated that perhaps the frequency of particular lexical items such as a salient performative velarized /s/ in the word "E[x]paña" might lead to the expansion of s > [x] into more non-pre-velar positions. Furthermore, as Momcilovic found both the aspirated variant and the velarized variant to occur in various positions, it was hypothesized that the more salient variant may be conditioned by particular lexical items despite phonological environment. The second research question (ii) examines other linguistic factors that may influence the /s/ variable realization. As the previous studies on Madrid /s/ do not address this question, it was hypothesized that factors found to affect coda /s/ in other dialects, such as morphological role, additional plural information, parallelism, stress, word position, syllabic position and word length (Carvalho, 2006a, 2006b; Erker, 2010; File-Muriel & Brown, 2011; Henriksen & Harper, 2016; Rodríguez-Pineda, 1994; among others), would be of importance in the realization of coda /s/ in Madrid.

The next question (iii) aims to discover whether the contexts of variant use change according to traditional sociolinguistic categories, such as age and gender. Given that Momcilovic (2005: 149) cites Madrid youth as being "readily recognized" for their

pronunciation of /s/ > [x], the variable was expected to be used more with younger subjects. Furthermore, as this is a traditionally lower class, male variant (Momcilovic, 2005; Turnham & Lafford, 1995), and the working-class is generally assigned the quality of "toughness", in particular men (Eckert, 2008), it was thought that "toughness" may play a role in the younger generation trying to perform "cool". As far as gender, Labov (1972) explains that women use speech differently than men in particularly set ways (i.e., the well-known gender paradox in which women tend to use standard variants more than men while at the same time leading in linguistic change); however, Eckert (n.d.) explains that in her ethnographic data, "what emerge in the larger population as gender differences reflect something that is only indirectly related to gender" (p.18). Even so, in the reading task data, that is, a more formal task, it was expected that the results would echo those found by Momcilovic (2005) and Turnham and Lafford (1995), in which men were found to use nonstandard /s/ more frequently. Finally, among the other extralinguistic factors hypothesized to condition variable use, it was thought that the order of the reading tasks, whether the first task before the interview or the second task after the interview, as well as the reading order within each task, would affect the variable realization. Specifically, it was hypothesized that a later reading would produce more nonstandard variants.

The fourth research question (iv) examines the role of content in the reading task. While traditionally reading a wordlist is considered more formal than the conversational part of the sociolinguistic interview and therefore leads to the use of more standard variants, here more colloquial words and phrases were included to explore the role of content in reading. In this way, although both Momcilovic (2005) and Turnham and Lafford (1995) found the highest percentages of [s] in the wordlist task, based on the patterns of use seen in the online orthographic representations of nonstandard /s/ in which velarized /s/ appears to mark a "pure Madrileño" identity, it was hypothesized that words and phrases associated

specifically with Madrid would trigger the more informal variants. In other words, perhaps speakers would perform "being Madrileño" while they read specifically Madrileño words and phrases.

4.2 METHODOLOGY

The production data for this study is comprised of approximately six hours of reading task recordings, which were collected immediately before and after small group sociolinguistic interviews. The methodology for data collection and analysis follows, including a description of the participants, the reading task and recording procedure as well as the statistical models used in the analysis.

4.2.1 Subjects

A total of 50 subjects were recruited for the production study. All participants were native Madrileños, ranging in age from 18-40 years old, and included 23 men and 27 women. The education level of the participants ranged from middle school to graduate education, including vocational training; however, as can be seen below in Figure 52, the majority of the participants, 37, had received or were currently pursuing at least a university level of education[68]. Besides these 37 participants, six had some form of high school education[69],

[68] Here "university" includes reported levels of *universitario/universidad* (14 responses) as well as *licenciado/licenciatura* (13 responses), four year degree, and *diplomado/diplomatura* (4 responses), three year degree.

[69] Here "high school" includes reported levels of both *E.S.O (Educación secundaria obligatoria*)., required education through to 16 years of age and *bachillerato*, the last two years of high school that are not obligatory.

three had studied through middle school[70], and four had vocational training[71]. As for the participants' family background, 32 of the participants had at least one parent that was born in Madrid, and for 14 of these participants, both of their parents were Madrileños. Furthermore, four participants had one grandparent from Madrid, 13 participants had two grandparents from Madrid and nine participants were *gatos puros*, meaning all four of their grandparents were Madrileños. Lastly, almost all of the participants, 47, had grown up in a household where uniquely Spanish was spoken, although three participants came from a home where Spanish as well as another language(s) was spoken.

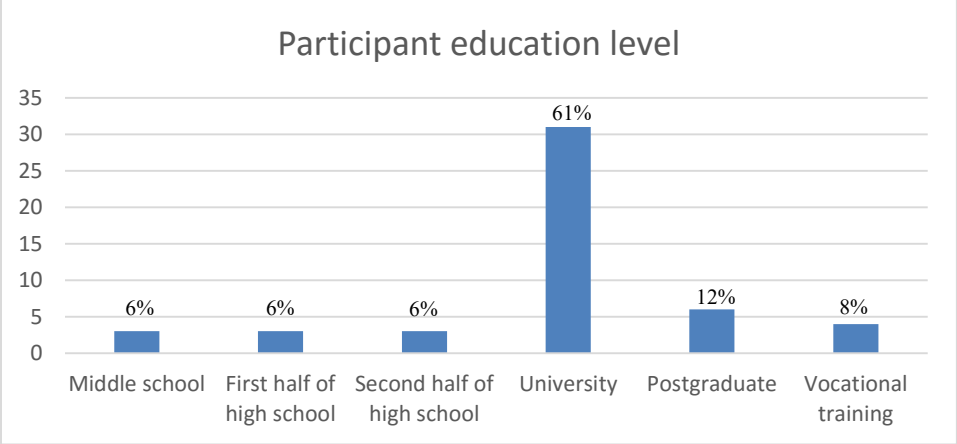


Figure 52: Distribution of participant education level.

Of these 50 participants, most had never resided outside of Spain, although it should be noted that 15 did live abroad for a short period of time, which, except for in the case of two participants[72], had included a stay of one year or less. Within the country of Spain, the

[70] Here "middle school" refers to *E.G.B.*(*Educación general básica*), primary school through to 14 years of age. Previously, before *E.S.O.*, this was the last year of obligatory schooling.
[71] Here "vocational training" refers to *formación profesional*, which can be done any time after completing at least *E.G.B.* Two participants listed an educational level of *formación profesional*, while one specified *formación profesional I* and another *formación profesional II*.
[72] The two participants who had spent more than a year outside of the country include a two year stay in the UK and the other a one year stay in Portugal in addition to four months in Germany.

vast majority of participants, 44, had only ever lived in the community of Madrid, while four had also spent time living in other regions of Spain. Two more participants noted that they had lived outside of the community of Madrid, one for three months and another for one month, but as both of these cases were rather temporary, they were not counted as residence. As previously stated, all participants were born and had lived most of their lives, if not all, in Madrid, and this included various neighborhoods of Madrid proper as well as several different municipalities within the Community of Madrid. The distribution of participant origin/residence is presented below in Table 10[73]. It should be noted that for those participants who had lived in more than one municipality/neighborhood of Madrid, their residence is recorded under each of their locations, and for this reason the table shows more than 50 respondents.

Alameda de Osuna	4	Carabanchel	3	Fuenlabrada	4	Mejorada del campo	1	Puerta del sol	1	Valdebernardo	1
Alcobendas	2	Centro	2	Getafe	1	Mirasierra	1	Retiro	2	Valdemoro	3
Aluche	1	Cerceda	1	Hortaleza	1	Morata de Tajuña	1	Salamanca	3	Vallecas	2
Arganda del Rey	3	Chamberí	1	La Poveda	1	Moratalaz	3	San Blas	1	Vicálvaro	1
Arganzuela	1	Chinchón	1	Las Rosas	1	Mósteles	2	San Sebastián de los Reyes	4	Villa del Prado	1
Arturo Soria	1	Ciudad Lineal	3	Leganés	4	Pinto	5	Tetuán	1	Villalvilla	1
Boadilla del Monte	1	Colmenar de Oreja	1	Madrid	3	Poblado dirigido de Orcasitas	1	Torrejón de Ardoz	4	Villaverde	3
Campo Real	4	Concepción	1	Maravillas	1	Príncipe Pío	1	Torrejón de la Calzada	1		

Table 10: List of municipalities and neighborhoods of Madrid that at least one participant listed as a current or past place of residence, followed by total number of participants.

[73] The three participants who listed "Madrid" were currently living in other municipalities within the community of Madrid, and thus Madrid (capital) was listed in contrast to these. All other participants from/living in Madrid proper provided the neighborhood/area of Madrid as was requested on their background form.

Most subjects in this study were recruited by word of mouth or were friends of friends (of friends). A small percentage of participants responded to an advertisement that was posted throughout the campuses of various universities within the Community of Madrid, including the Universidad Complutense and the Universidad de Alcalá. In the following section, a detailed account of the data collection procedure is offered.

4.2.2 Procedure

As aforementioned, the data used in this study come from reading tasks conducted immediately before and after small group interviews. The procedure for the entire recording session, including the interviews themselves, is offered here, with the awareness that the reading tasks were not independent from the interview session, the latter perhaps influencing the results of the reading task performed directly afterwards.

The sociolinguistic interviews, sandwiched between the reading tasks, were conducted in small groups consisting of three participants, with the exception of one interview with only two people[74], for a total of 17 interviews. The requirement for a group to participate in the interview was that all participants had to have known each other. Relationships among group participants included friends or a combination of friends, siblings and/or romantic partners. All of the participants except three were previously unknown to me. Ten of the interviews were conducted at one of the participants' homes, one at a participant's boyfriend's home, four in my apartment, one in a study room of a public library and one in a quiet tea house.

Before beginning each interview, all participants were asked to complete a background questionnaire, which enquired about age, gender, profession, education level,

[74] The third subject canceled last minute, but as the other two participants had already arrived for the interview, we decided to go ahead and proceed without the third person.

languages spoken and age of acquisition, languages spoken in the household in which they were raised, origin of parents and grandparents, extended stays outside of the country, extended stays outside of Madrid, neighborhoods/ areas of Madrid in which they lived or had lived in the past and for how long and finally, the capacity in which they knew their fellow interviewees. While their fellow interview participants were completing the background questionnaire, each participant was asked to go into a separate room in order to record themselves completing the reading task. Once the participants were taken into the recording room (individually), they were given instructions and then left alone to read the words and phrases into a microphone placed alongside the Marantz PMD620 digital recorder. A separate room was used so that the unnatural reading task was not further confounded by having an audience of peers.

The "wordlist" used in the reading tasks consisted of two stacks of cards, both of which were shuffled before each new interview group (and later were inevitably moved out of order within each interview group as the participants took turn recording themselves)[75]. The first stack of cards contained 30 words, 16 distractors and 14 target words, while the second stack contained 37 short colloquial phrases, made up of 10 distractor phrases and 27 phrases containing at least one target word. Within the first stack of cards, the target words include eight instances of the /s/ variable appearing before /k/, three tokens of /s/ before /p/[76], and finally three tokens of /s/ before /t/. With the second stack of cards, the phonological environment of target /s/ included one instance of /sb/, another of /stʃ/, two of /sd/, two of /sg/, two of /sl/, five of /sm/, five of /sp/, nine of /st/, sixteen of /sk/ and another six of /s/ before a pause. The reading task was done twice during the interview procedure, the first session taking place before the interview so that later

[75] See Appendix D for complete list of words and phrases.
[76] In one of these words, the /s/ before /p/ was part of the cluster /ks/: *Explicar*.

discussions of Madrileño speech and pronunciation would not influence or prime particular pronunciations. The second reading task was completed immediately following the interview. In order to better understand the influence, if any, that the interview content may have had on the second reading results, a brief discussion of the interviews is offered in what follows.

After the first round of recordings for the reading task and the language background questionnaires, an interview of approximately one hour in length took place. The interviews followed the Labovian format for the sociolinguistic interview, engaging speakers in narratives, and encouraging discussion of controversial topics among the participants[77]. All interviews began with the participants introducing themselves and their family background and area of Madrid in which they had grown-up. While each interview was different and the direction of discussion topics were sometimes, ideally, run by the participants themselves, the main points discussed in each interview included (1) what life was like as a child and how their particular neighborhood/municipality of Madrid had changed since then, (2) the values of youth when they were growing up and nowadays, (3) religion in Spain, (4) whether they liked soccer and if they remembered where they were and how they celebrated when Spain won the world cup, (5) how they felt about Spain taking a bailout from the European Union, if they thought the economic crisis would get better in the near future and whether they thought the frequent protests had any effect, (6) stereotypes of different regions of Spain and their people, and how one can recognize, linguistically and behaviorally, a Madrileño, and finally, (7) a memorable story about their fellow interviewees.

[77] Labov (1984) outlines methodology for conducting sociolinguistic interviews, including eliciting narratives such as experiences of danger of death and controversial topics such as religion and race.

4.2.3 Data analysis

With a total of 17 group interviews and 50 participants, roughly 24 hours of speech was recorded and transcribed. In addition, approximately six hours of reading task recordings were collected[78]. It is these six hours of reading task recordings, with a total of 97 recordings[79], yielding a total of 5, 622 tokens, that are used for the analysis presented in the rest of this chapter.

In order to carry out the coding for the analysis, two native speaker assistants[80] were given copies of the transcriptions with target /s/ highlighted in red, and were then asked to classify impressionistically the variant that they heard, [s], [h], [ø] or [x][81]. As a non-native speaker but a linguist, I also classified the instances of /s/ impressionistically. Lastly, the tokens for which the three of us did not agree on the categorization were then given to a fourth coder. This fourth coder was both a linguist and a native speaker of an aspirating dialect[82]. In this case, the sound that was heard by the most coders was chosen as the variant used in coding. It should be noted that due to an error in token highlighting in the coding guide, several instances of /s/#, /sa/ and /su/ were not included in the impressionistic coding and consequently were omitted from the analysis.

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[78] All 50 participants completed the reading tasks twice, once before the interview and once after, and depending on reading speed, each recording lasted between three to five minutes.

[79] Three recordings of the 100 (50 participants * 2) were not actually recorded due to either issues with the batteries or the participants themselves accidentally turning off the record button.

[80] These assistants included native speakers of aspirating dialects (Puerto Rico, Chile and Argentina). None were linguists. Although three native speakers participated in the task, there were only ever two working on the project at the same time. The coder from Puerto Rico was unable to continue working on the project after completing the coding for the reading tasks from the first two interviews. The coder from Argentina took her place at that time. While these coders were all speakers of aspirating dialects, it should be noted that they were not native speakers of a dialect which employs the velarized variant. Simonet et al. (2008) explain that listeners who are native speakers of the dialect of study can more accurately hear the difference between variants, and in this way, it should be acknowledged that the accuracy of the already subjective task of impressionistically coding /s/ variants is cast further into doubt given the non-madrileño origin of the coders.

[81] Options for additional variants, such as the voiced [z] were given, but none of the native speaker coders heard any sounds other than those mentioned ([s], [h], [ø] and [x]).

[82] The fourth coder is a native speaker of the Spanish spoken in Lima, Peru.

In order to conduct a statistical analysis of the significant factors conditioning the realization of the /s/ variable, generalized linear mixed models using the binomial family and logit link were fit using the statistical analysis software R, controlling for the effects of *speaker* and *word*. If the reader recalls from Chapter 3, in order to carry out a logistic regression, the dependent variable must be binary; therefore, two analyses were run, one with standard /s/ versus nonstandard /s/ and another with standard /s/ versus velarized /s/. In the former, the nonstandard /s/ included all categories of nonstandard /s/, that is the aspirated, elided and velarized variants ([h], [ø] or [x]). The latter, with the aim of gaining a further understanding of the velarized variant in particular, considered only those nonstandard tokens classified specifically as the velarized variant, [x].

For both of the analyses aforementioned, the models began with the following independent linguistic variables: previous segment, following segment, morphological role, additional plural information, parallelism, stress, word position, syllabic position, word length. The previous segment referred to the phonological segment directly before /s/, and following segment coded for the phoneme directly after /s/. The morphological role looked at whether the /s/ was lexical, plural, a verb marker of *tú* or part of *nosotros*. The role of a plural inflection was further analyzed by examining whether there was additional plural information within the phrase (for instance *lo(s) gato(s)* contains further plural information with the determiner *lo(s)*). Next, the effect of parallelism, or priming, was considered, coding the /s/ for its appearance in the phrase; for instance, in *qué me estás contando,* the first /s/ of *estás* was coded as (1) while the second was coded as (2). The tokens were also coded for stress, whether tonic or atonic[83], as well as word position, initial,

[83] Hualde (2010) argues that secondary stress in Spanish is an optional phenomenon dependent on speech style, rejecting the claim that secondary stress is a feature inherent to Spanish. Following this argument, in the current study only primary stress was considered.

middle or final, and syllabic position, initial or final. All instances of /s/ were also coded for the length of the word in which they occurred.

The extralinguistic independent variables included in the analysis were reading time, order, style, speaker gender, age, education, number of parents from Madrid and number of grandparents from Madrid. Here, reading time refers to whether the token came from the first reading task (conducted before the interview) or the second reading task (a repetition of the first task, performed after the interview), and order refers to the order in which the token appeared in the reading list. The style included whether the token came from the wordlist or phrase list.

Initially, the models for each of the analyses were unable to run, producing convergence warnings. Several actions were taken in order to continue with the analysis[84]. Following these measures (see footnote 84), the model was able to run without warnings. This left the model for standard versus nonstandard /s/ with the independent variables of *reading time, order, syllabic position, age, number of Madrid parents* and *number of Madrid grandparents*. A similar process[85] led to the final model of standard versus velarized /s/ including the independent variables of *reading time, order, syllabic position*

[84] First, each factor was run as the sole independent variable in the model in order to learn if it alone was significant. Following this, the model was run once again including only those factors which had a significant effect on whether /s/ was standard or nonstandard when tested alone. This, however, produced a convergence warning message again, and thus following the guidance of statistics consultants, the model was run including once again all original independent variables except for those shown to have a significance level of $p \geq .20$. In the case of the standard versus nonstandard analysis, this removed the factors of *following segment*, *word length, gender* and *style*. Following this step, a convergence warning still appeared, so the factor that was not significant when tested alone, *parallelism*, was removed. As a convergence warning was issued once again, the least significant factor on its own (where no error message was produced), *stress* ($p = .0476$), was removed, and the model was able to run without warnings.

[85] The sole difference in the process was that three variables that were significant at the highest level but produced convergence errors were included in the final model once again, given their $p \leq 0.001$ significance, to see if a convergence error would still be produced. The convergence error indeed did *not* appear; however, only one of these factors, *order*, was still significant ($p \leq 0.001$). It was included in the final model.

and *number of Madrid grandparents*. Results from these statistical analyses are presented in section 4.3.2.

4.3 RESULTS

In what follows, the results of the segmental analyses are presented. Before presenting the findings of the statistical analyses, however, a more qualitative view of the data is offered in a discussion of the distribution of the /s/ variable in the data. For this section, different visualization tools are employed in order to create an image of the distribution of the variable using the discrete categories assigned to the various instances of /s/. Once a general picture of the distribution of the data has been offered, the statistical analyses results are presented, divided into an analysis of standard /s/ versus nonstandard /s/ and then standard /s/ versus specifically the velarized /s/.

4.3.1 Distribution of /s/

The first research question for the production study sought to discover more about the distribution of the /s/ variants, asking whether speakers had a preference for velarization over aspiration and if not, whether these two appeared in complementary distribution. Below the general distribution of the variants is presented, followed by the context in which they appear. In addition to this, the distribution of variant use according to gender, education and age are offered.

The results of the production study show that standard /s/ was used 87.8% of the time by the 50 speakers in this study. The other 12.2% of nonstandard /s/ consisted of 6.3% aspirated /s/, [h], 2% elided /s/, [ø], and 3.9% velarized /s/, [x]. While the percentage of nonstandard /s/, and velarized /s/ in particular, is fairly low, I remind the reader that these

are the distribution values for a reading task. When compared to previous Madrid studies, these distributions are fairly comparable, although a true comparison cannot be made, as neither of the previous studies considered all four of these variants[86]. Turnham and Lafford (1995) found the distribution of /s/ to be 99.1% [s], 0.9% [x] and 0% [ø] in reading a wordlist and 87.6% [s], 8.2% [x] and 4.1% [ø] in a longer reading task[87]. Momcilovic (2005) found the distribution of /s/ to be 93% [s], 3.3% [h], 2.9% assimilated and .08% [ø] in reading a wordlist, and 81.3% [s], 9.2% [h], 5.4% assimilated and 4.1% [ø] in a text reading task[88]. The variant distribution for the current study is presented below in Figure 53.

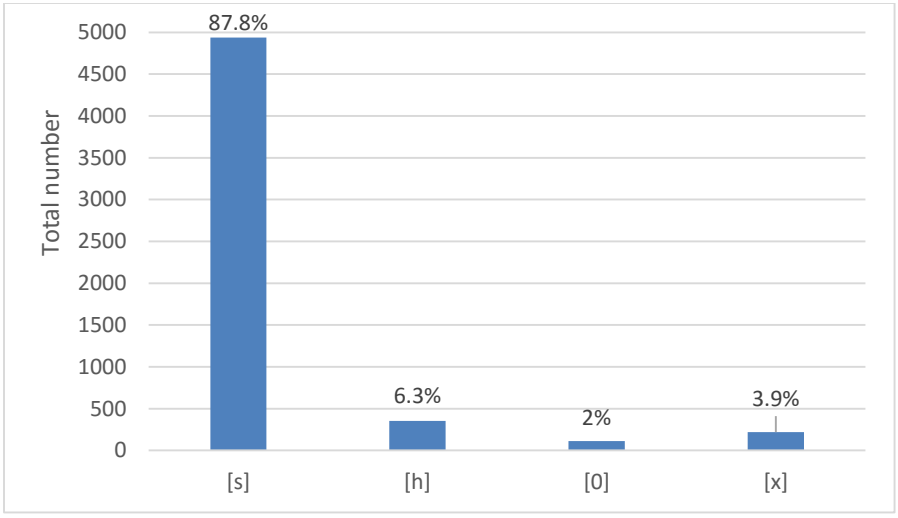


Figure 53: Variant distribution for /s/ out of a total of 5,622 tokens

[86] A comparable study as far as variants quantified is that of Henriksen and Harper (2016). The results again are not entirely comparable in that Henriksen and Harper's study investigates speakers from Toledo (approximately 70 km from Madrid proper), and the results of their study are based on continuous speech rather than a reading task. Nonethlesss, Henriksen and Harper found that [s] was used 55% of the time, [h] or [ø] 22.2% of the time, and [x] 22.7% of the time.

[87] Turnham and Lafford only considered /s/ in /sk/ clusters, and that [h] was not considered an option within the "phonetic inventory" of Madrid (1995: 313).

[88] Momcilovic (2005) considered the variants of [s], [h], [ø] as well as *A*, or assimilated. The velarized variant was included in the assimilated group before velar consonants and in the aspirated group in other contexts. In the same way, other variants, such as [z], were included in the assimilated group if they occurred in the context of a homorganic consonant.

As shown in Figure 53, speakers used the aspirated variant more frequently than the velarized variant, with a total of 352 tokens of [h] compared to 220 of [x]. The second part of research question (i) asked whether these variants were in complementary distribution. The results show that while they are not necessarily in complementary distribution, the velarized /s/ does seem to be overwhelmingly restricted to a pre-voiceless velar position, with 99.1% of velarized /s/ tokens appearing directly before [k][89]. The distribution of the /s/ variants throughout the various phonological environments is presented below in Figure 54.

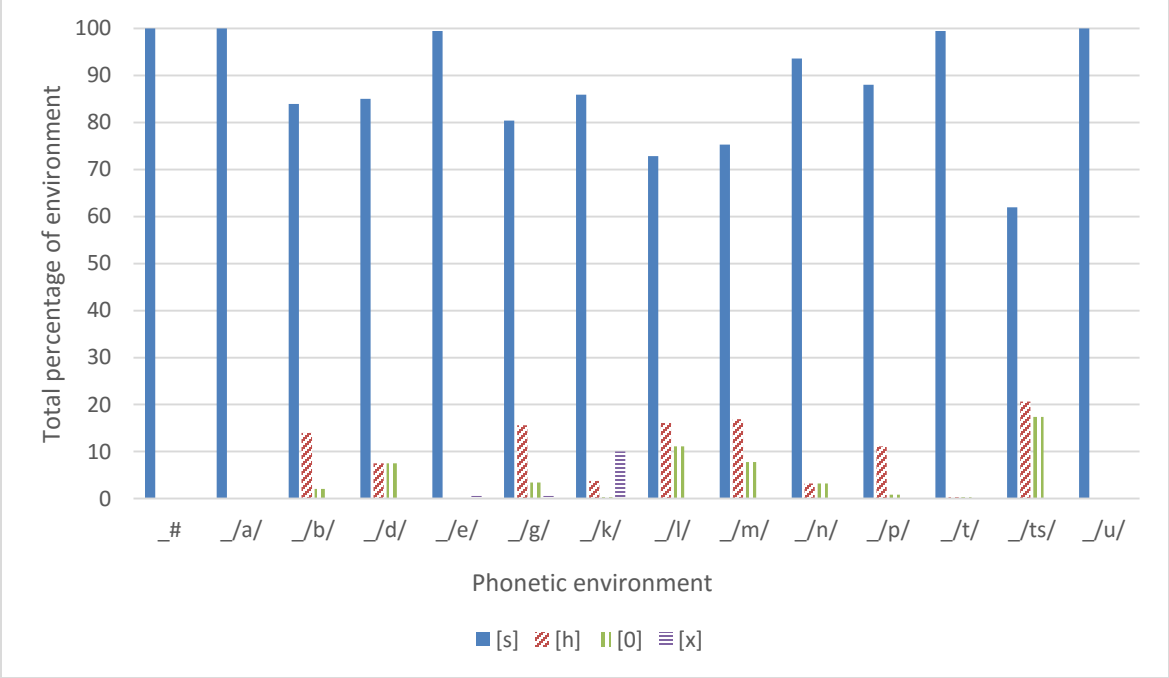


Figure 54: Distribution of /s/ variants in different phonetic environments

Related to the phonological environment in which the /s/ variable appears, research question (iv) addressed the question of whether specific words or phrases had an effect on

[89] [x] also appears once before /e/ in *¿Quién ganó el mundial? ¡Pue**[x]** E[h]paña!* and once before /g/ in *Lo[ø] madrileño[ø] de pura cepa son lo**[x]** gatos*.

variable realization; for instance, as we saw above in Figure 54, velarized /s/ appears almost exclusively before /k/, though perhaps there are particular words or phrases which favor the appearance of the velarized variant more than others. In what follows, a tag cloud representation for each of the nonstandard variants, [h], [ø] and [x], offers a visual representation of the frequency of those words in which they appear. To better understand the context in which these words appeared, a second tag cloud is provided for each variant showing the complete phrase from which those words provided in the tag cloud were extracted.

As can be seen in Figure 55 and Figure 56, the words in which the aspirated variant, [h], was most frequently used include *Esperanza* (15 occurrences), *eres* (20), *espabilao* (19), *es que*[90] (18), *los* (56), *madrileños* (18), *España* (32), *sabes* (17) and *más* (57)[91]. Looking more widely at the entire phrase, the aspirated variant most often appeared in the phrases *¿a ti te gusta Esperanza Aguirre?*(17)*, eres más agarrado que un chotis* (20), *eres un espabilao* (19), *los madrileños de pura cepa son los gatos* (36), *¿me puedes explicar por qué a los madrileños les dicen los gatos?* (47), *¿quién ganó el mundial? Pues España* (17), *¿sabes lo que te quiero decir?* (17), *soy la más mala y la más chula de Mósteles* (35), *soy la más mala y la más coqueta de Mósteles* (22) and ¡*vamos España!* (15). As can be seen, it is the longest phrases that have the most instances of the aspirated variant. In addition to speech rate and attention paid to speech possibly influencing the variable realization in these longer phrases, there are also simply more opportunities to aspirate an /s/ within these phrases, each containing multiples /s/ segments.

[90] Here "es que" was considered a single word because of its frequency as a single unit discourse marker. Furthermore, Turnham and Lafford (1995) cite the filler *es que* as behaving differently than the rest of their /sk/ cluster data, *es que* favoring retention (compare 70.5% [s], 23.5% [x] and 5.9% [ø] in *es que* but 58% [s], 27.4% [x] and 14.5% [ø] in all other instances of /sk/).

[91] Here and in all the examples that follow with the other variants of /s/, only those phrases with a frequency of 15 tokens or higher are discussed. The tag cloud visualizations included all instances of the variant presented, even those with only a single instance.

The two most frequently aspirated words, illustrated in Figure 57, were also the two words with the most elision, *los* (33) and *más* (29). Furthermore, the /s/ in *madrileños* (28) was also frequently elided, even more often than it was aspirated. The phrases in which these frequent elisions of /s/ occurred, shown in Figure 58, included *los madrileños de pura cepa son los gatos* (27), *¿me puedes explicar por qué a los madrileños les dicen los gatos?* (37) and *soy la más mala y la más chula de Mósteles* (22). Once again, all three phrases are among the longest included in the reading task.

As for the velarized variant, the /s/ > [x] variant was used most frequently with *es que* (49), *pues* (23), ***es****cribas* (23), *escrito* (22), *está****s*** (28) and *das* (22). As can be inferred from the bold letters in ***es****cribas* and *está****s***, it is the first /s/ in the former and the second /s/ in the latter in which we frequently find the velarized variant. The most frequent phrases containing the velarized variant include *es que estoy todo rallado* (19), *hombre, pues claro* (22), *no jodas, no le escribas tanto a tu chico* (23), *¡ostias! ¿te ha escrito ese tío?* (23) and *¿pero qué me estás contando?* (28). Unlike the aspirated and elided variants, the longest phrase of the reading tasks is not included here. Here the phrases with the most velarized /s/ tokens clearly indicate a strong stance, supporting the hypothesis of velarized /s/ conveying a meaning of toughness. The lack of explicit mentions of Madrid and Spain, however, detract from the hypothesis that velarized /s/ expresses a sense of "Madrileño-ness".

Finally, a visual representation is also offered below for standard /s/ in Figure 61. Because the standard variant appears in the vast majority of cases, the tag cloud presented includes only those words and phrases in which the /s/ segment produced was *exclusively* standard; that is, those words and phrases in which a nonstandard variant was never once used in all 97 recordings. Echoing what we saw in Figure 54, here a context of _/t/ seems to be entirely reserved for standard /s/. Furthermore, those instances of /s/ which came

word-finally such as *gato**s*** or *Móstele**s***, or those that preceded vowels, such as *vamo**s** (España)*, also were exclusive to /s/. It should be noted that the difference in size and color in the tag clouds for standard /s/ words and phrases are not due to difference in frequency because of variation in the variants (as all words given were always exclusively of standard /s/), but rather due to those words which were not included in the impressionistic study because of the coding guide errors explained in section 4.2.3. A separate tag cloud including phrases in which standard /s/ was used exclusively is not included because the only phrase in which only the standard /s/ appeared was "*este va de colgado*"[92].

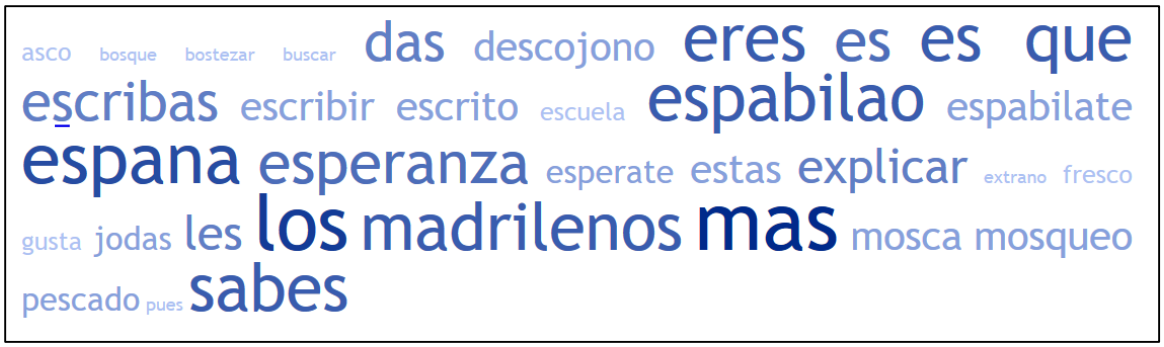


Figure 55: Specific word- Instances in which the /s/ was aspirated, [h]

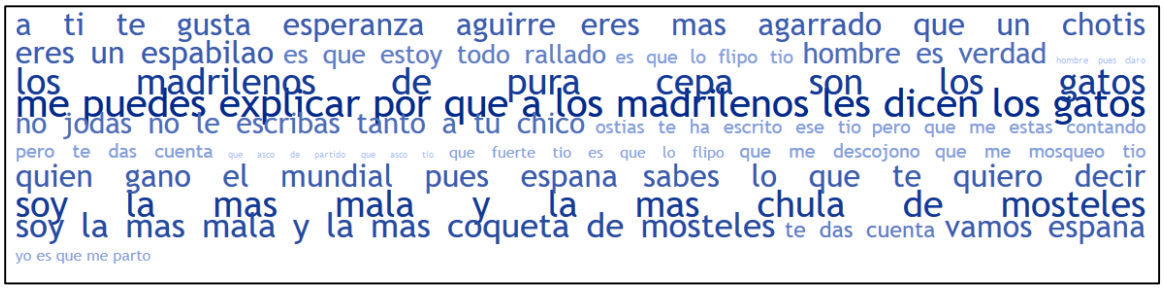


Figure 56: Complete phrases- Instances in which the /s/ was aspirated, [h]

[92] The other words shown in Figure 61 that appeared in phrases also produced standard /s/ exclusively; however, additional words within those phrases included other variants of /s/.

Figure 57: Specific word- Instances in which the /s/ was elided, [ø]

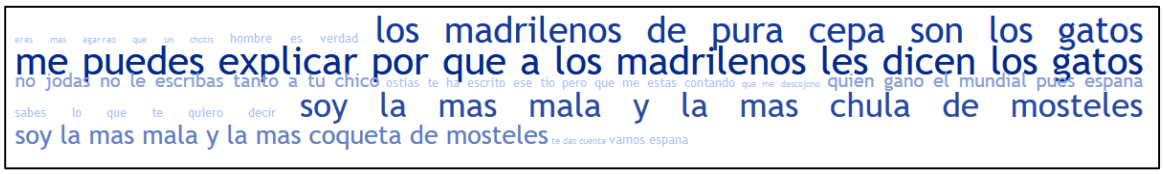


Figure 58: Complete phrases- Instances in which the /s/ was elided, [ø]

Figure 59: Specific word- Instances in which the /s/ was velarized, [x]

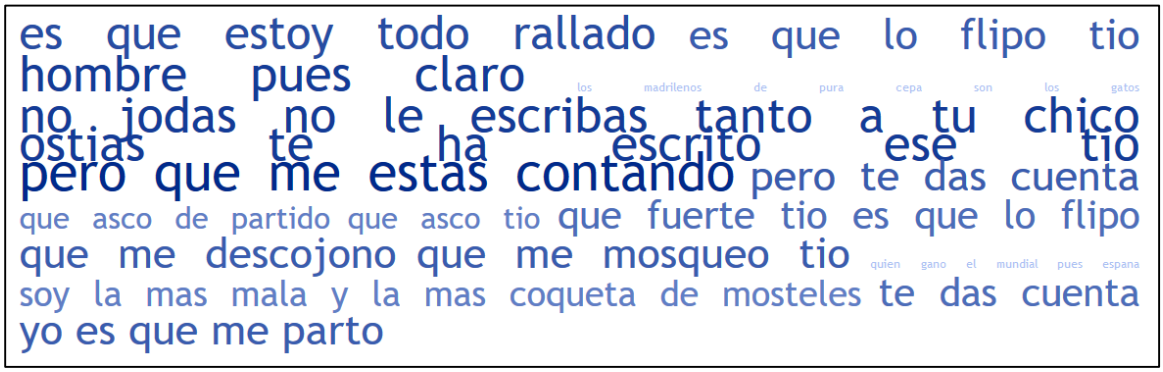


Figure 60: Complete phrases- Instance in which the /s/ was velarized, [x]

Figure 61: Specific words in which standard /s/ appeared exclusively

In addition to the context in which the distinct variants appear, in this section the distribution of the variants across different social factors will be presented. First, within the category of gender, as can be seen below in Figure 62, the distribution across genders seems to be fairly comparable, with men producing slightly more instances of the nonstandard variants of [h] and [ø] than the women, and women producing somewhat more standard /s/ variants than the men. The largest difference between genders can be seen in the production of the velarized variant, in which men use twice as many velarized variants as the women. This trend supports the hypothesis put forth earlier in Chapter 3 within the profession section of the perception study that [x] can afford a more masculine persona to the women; however, it should be noted that the difference in variant use seen here between men and women was not found to be significant.

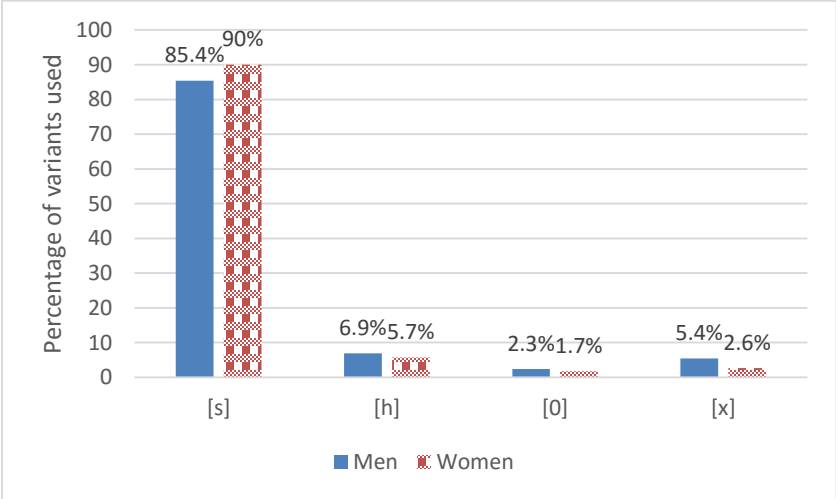


Figure 62: Distribution of /s/ variants used according to speaker gender

Next, in Figure 63 and Figure 64, the distribution of /s/ variants used according to speaker education is presented[93]. Figure 63 shows the total tokens for each variant separated by education level, and Figure 64 shows the distribution (percentage) of variant use within each level of education. As can be seen in the graphs, variant distribution across education level remains fairly similar, with the exception of university level education speakers appearing to use standard /s/ somewhat more than speakers of other education levels, including that of postgraduate, and by the same token producing less nonstandard variants. Furthermore, it is possible to note that *formación profesional*, or vocational training, varies from the other education groups slightly in speakers using less standard /s/ than other groups and more nonstandard /s/s. It should be noted that Spaniards can decide to enroll in vocational schooling anytime between the end of *EGB*, roughly equivalent to middle school, through to university. Finally, the *bachillerato* group, or the last two years of high school, also behaves differently in that standard /s/ is preferred even more than university and postgraduate educated speakers; however, this group is made up of only two participants that were friends in the same interview group[94]. As can be appreciated in the graphs, education does not seem to map onto variant use in a clear way. Indeed, as will be seen below in section 4.3.2, education has no significant effect on variable realization.

[93] **EGB (*Educación general básica*)**: Roughly equivalent to middle school, previously the minimum required level of schooling; **ESO (*Educación secundaria obligatoria*)**: Roughly equivalent to half of high school and the minimum required level of schooling; **Bachillerato**: The last two years of high school- not required by law; **Secundaria**: Refers to high school in general; **Formación Profesional:** Vocational training, which one can begin any time after completing at least EGB/ESO; **Universidad:** University; **Posgraduado**: graduate studies.

[94] It is interesting to note that this trend of friends producing similar variable use can be seen throughout the data. Despite the fact that the reading tasks were recorded individually in a separate room, groups of friends present in the same interview tended to produce similar variant use; e.g., all quite standard, or alternatively several instances of velarized /s/ within a group. This does not appear to be correlated with neighborhood/ region of Madrid, as many of the friends did not live/come from the same neighborhood or municipality of Madrid.

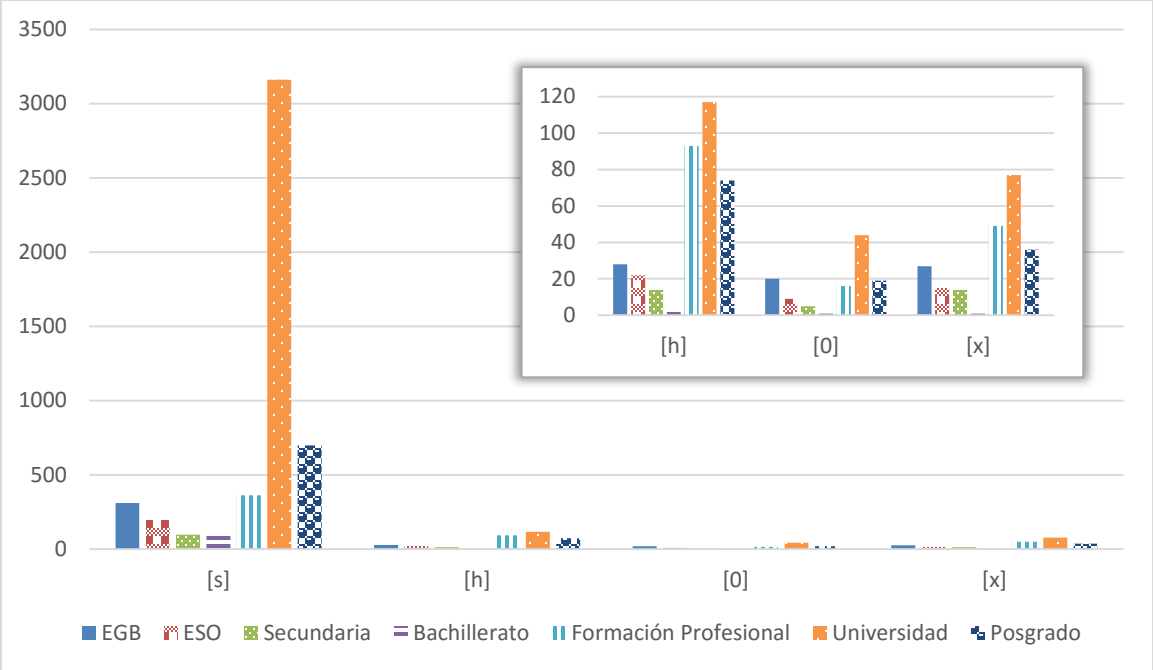


Figure 63: Distribution of variant use according to education level, total tokens

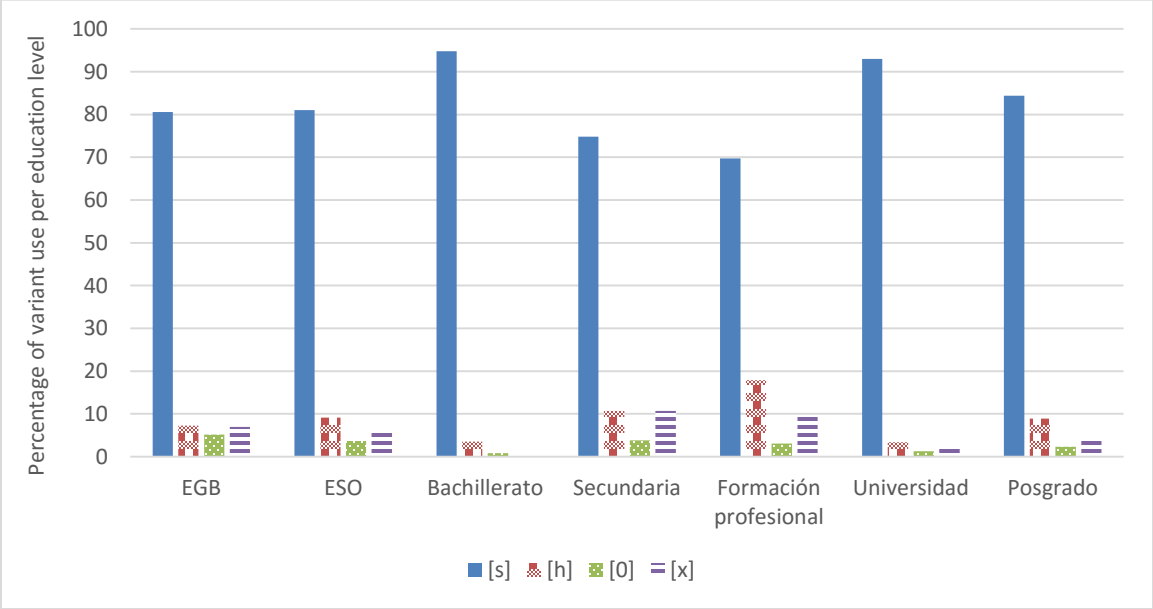


Figure 64: Distribution of variants (percentage) per education level[95]

[95] EGB (*Educación general básica*) is roughly equivalent to middle school and was previously the minimum required level of schooling. ESO (*Educación secundaria obligatoria*) is roughly equivalent to

The last social category of interest that will be presented in this section on variant distribution is that of age. The distribution of variant use per speaker age is presented below in Figure 65, followed by Table 11 with a summary of total number of participants per age group for reader reference. Here it can be seen that age does not seem to play a large role in variant choice, and indeed age is not a significant factor in variant realization in the segmental analysis results presented below in section 4.3.2. One can appreciate a slight increase in standard /s/ use and decrease in nonstandard variants as age increases, although given that the sample population was kept relatively young, between the ages of 18-40, we cannot know the effect that might be seen had a wider span of ages been collected. It should be noted, however, that during the interviews, when asked about the Madrileño [ex.ke], several participants claimed that it was a characteristic of the older generation's speech. This statement contrasts with Momcilovic's claim of /s/> [x] being a characteristic of Madrid youth (2005: 149). Finally, as the reader will note, the second age group does not follow the slight trend aforementioned; this is because it includes one speaker, age 27, who behaved markedly different in that he used standard /s/ less than 50% of the time.

half of high school and is the minimum required level of schooling. Bachillerato refers to the last two years of high school, which are not required by law. Secundaria refers to high school in general. Formación profesional is technical schooling, which one can begin any time after completing at least EGB/ESO.

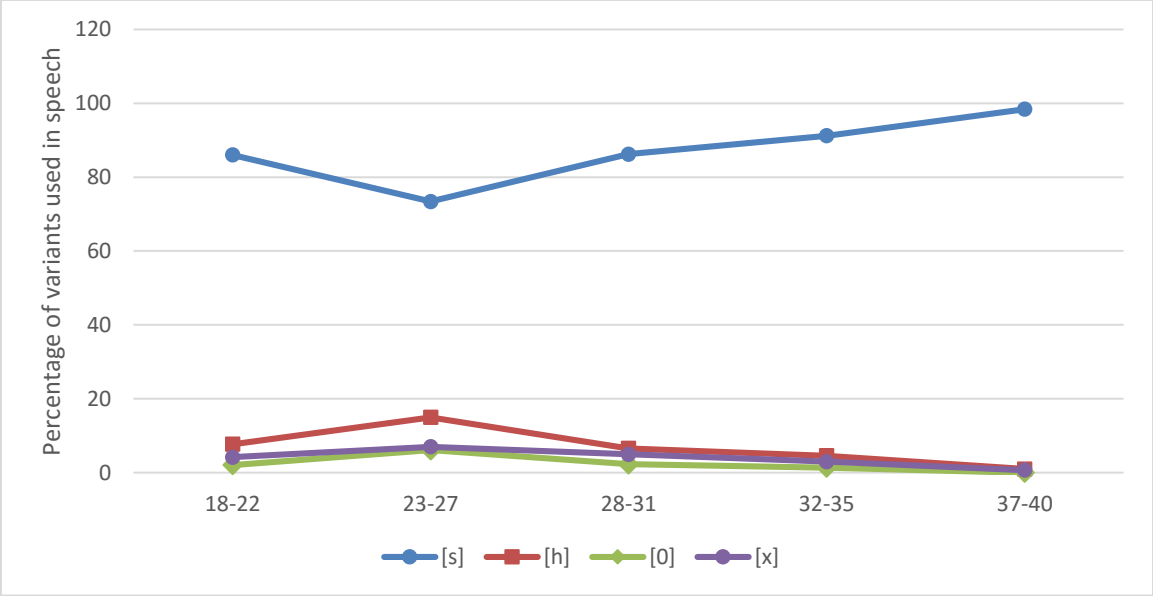


Figure 65: Distribution of variant use (percentage) according to speaker age

Speaker age	18	19	20	21	22	23	25	26	27	28	29	30	31	32	33	34	35	37	39	40
Number of participants	3	2	2	1	1	1	2	1	1	3	4	5	4	3	7	3	3	1	1	2

Table 11: Total number of participants for each age group represented in the study

With a better idea of the distribution of the variants in general, in addition to how this distribution patterns across the social groups of gender, education level and age, the results of the segmental analysis are presented in the following section.

4.3.2 Segmental analysis

As previously explained, the segmental analysis was conducted utilizing generalized mixed model using the binomial family and logit link. Because this model requires a binary variable, two separate analyses were run, one with standard /s/ and nonstandard /s/ as the dependent variable, and another with standard /s/ and specifically velarized /s/ as the

dependent variable. Each of these models were pared down as explained in section 4.2.3, until the best final model was achieved. The results for each of these analyses are presented below, beginning first with the analysis for standard /s/ versus all nonstandard forms of /s/.

4.3.2.1 Standard /s/ versus nonstandard /s/

For the analysis of standard /s/ versus nonstandard /s/, the final generalized linear mixed model using the binomial family and logit link found the independent variables of reading time, order, syllabic position and number of grandparents from Madrid to all be significant conditioning factors in variable realization. The first factor, reading time, referring to either the first or second reading[96], was significant at the highest level (SE= 0.1085, z= -6.961, $p \leq 0.001$). The model showed that the odds of the variant being classified as standard /s/ decrease by 53% the second time the reading task is performed. It is impossible to know whether this is due solely to comfort level with the process, as they had already performed the task once, and with being recorded, having spoken with friends for over an hour during the interview, or whether this change can also be attributed to a priming effect from the interview. Indeed, the second to last topic of conversation of each interview was always a discussion of Madrid identity, behaviorally and linguistically. The participants themselves usually highlighted the *ejque* as characteristic of Madrileño speech, but in the rare occasion that this aspect of a "Madrid accent" was not brought up, the interviewer directly asked about the *ejque*. In this way, all participants had recently discussed this pronounced feature of Madrileño speech before performing the second reading task. It should be noted, however, that not all participants would readily admit that Madrileños used the *ejque*, and a few maintained that the *ejque* was not a Madrileño trait. Furthermore, as mentioned

[96] That is, before or after the interview.

earlier, some claimed that it was *no longer* a Madrid trait, but rather characteristic of older generations. In this way, it is impossible to know the effect that the interview conversation had on the second reading task. The distribution of variable realization between reading times is presented below in Figure 66.

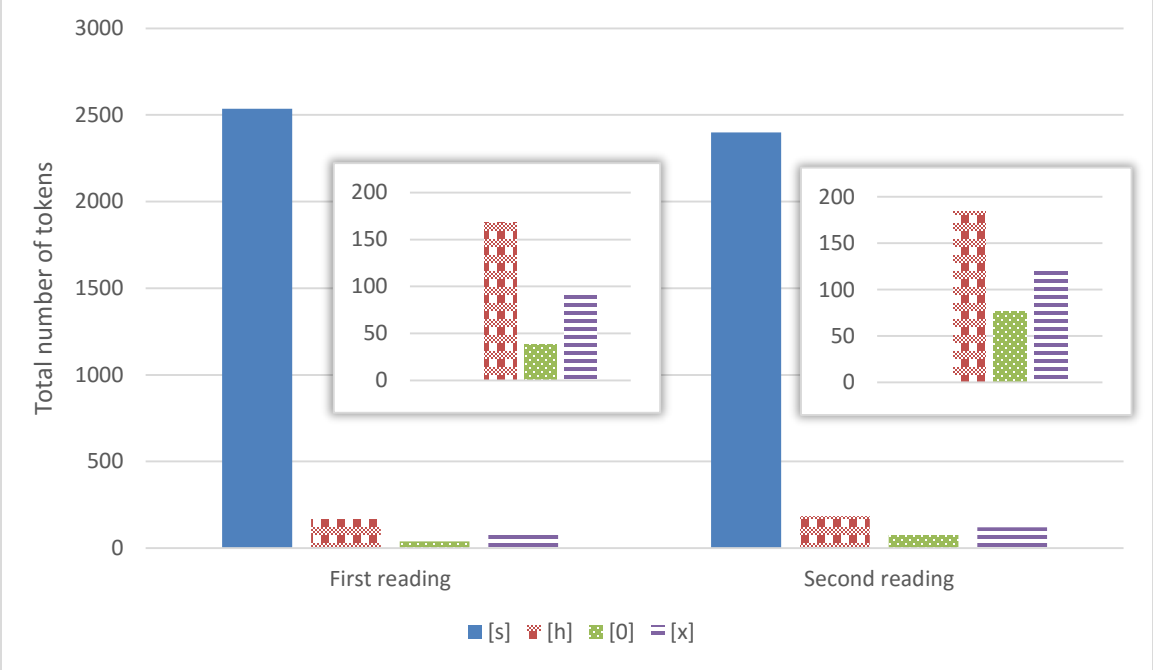


Figure 66: Distribution of /s/ variable in first reading second versus the second reading task

The second factor significantly affecting the /s/ variable is the order in which the word or phrase was read. Although this order was different for each interview group, the general trend was that as the order increased, that is, the further along a speaker got in reading the words and phrases, the more likely s/he was to produce a nonstandard variant. In fact, for every additional word or phrase read, the odds of the variant being classified as standard /s/ decreased by 2.4% (SE= 0.00367, z= -6.486, $p \leq 0.001$). This result is certainly expected, as progress in the reading is accompanied by more comfort, resulting in less

attention paid to speech, and perhaps an increase in speech rate, resulting in less care given to articulation. The distribution of the variants used as the order progresses is presented below in Figure 67. Speakers always read the stack of cards with individual words first, and this made up the first 14 tokens. This is reflected in the substantially higher instances of standard /s/ and very low numbers of nonstandard /s/ tokens in the first 14 instances of /s/. A second note of caution in interpreting the data visualization below is that the last couple of data points are lower in total tokens because it was quite common throughout the recordings that somewhere along the reading list, a speaker would skip a card or two, and thus produce one or two fewer tokens than the total number provided. Lastly, it should be noted that the order presented here is the order in which instances of target /s/ were presented; distraction words and phrases are skipped over and not included in the order count.

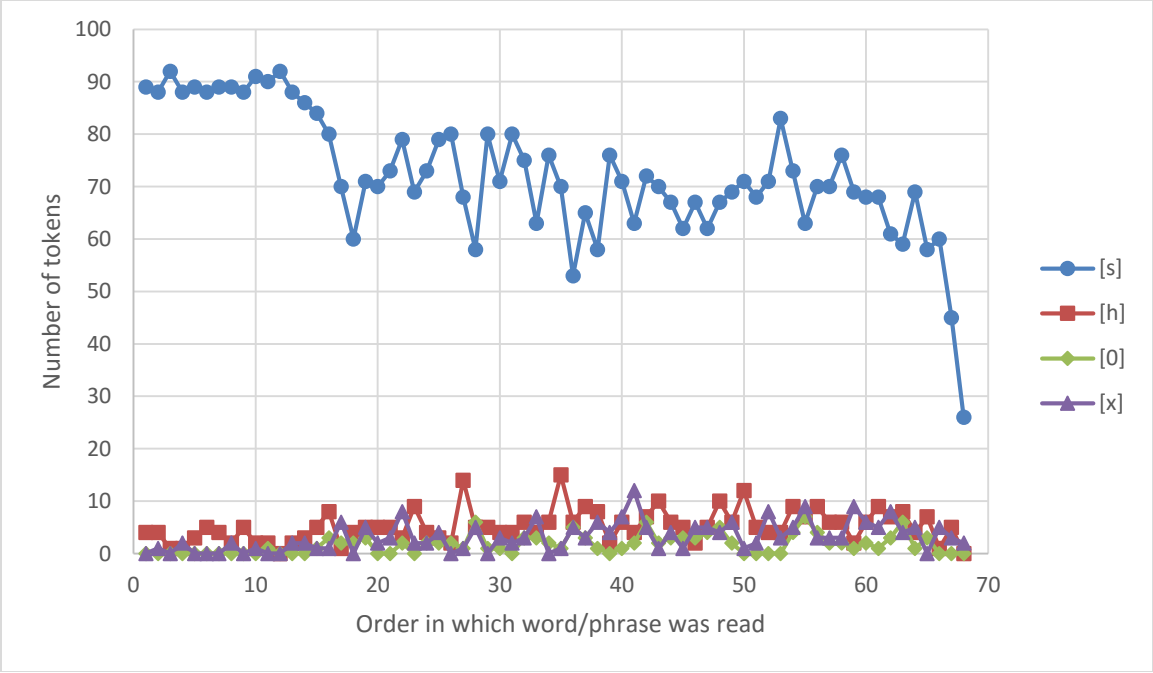


Figure 67:Distribution of /s/ variable as word/phrase list order increases

The only linguistic factor to significantly condition variable realization was syllabic position. When the syllabic position was initial rather than final, the odds of the variant being classified as standard /s/ increase by 77.6 times (SE= 0.8137, z= 5.349, $p \leq 0.001$). This finding is entirely consistent with previous studies of this dialect (Momcilovic, 2005) and is certainly expected. As previously explained, syllabic position and word position could not be run in the same model, as they overlapped a great deal. Syllabic position was chosen rather than word position because of a higher significance level. This decision was supported by the fact that an ad-hoc statistical analysis showed that the difference between a word medial and word final position was not significant, but rather it was the difference between word initial and word final that was significant. The distribution of the /s/ variable according to syllabic position is presented below in Figure 68.

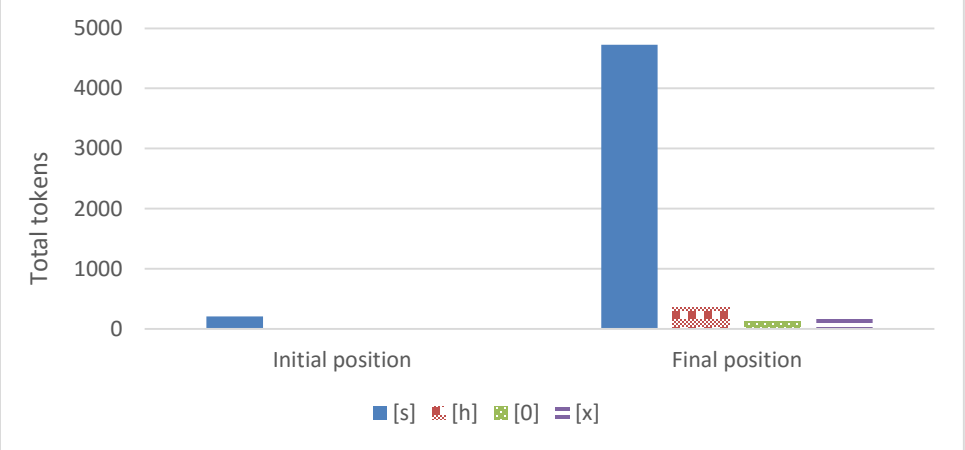


Figure 68:Distribution of /s/ by syllabic position

The last factor found to significantly affect the /s/ variable in participant speech was the number of grandparents they had that were originally from Madrid. It was found that the more grandparents a speaker had that were native Madrileños, the more likely they were to use nonstandard /s/ variants. Indeed, with each additional Madrileño grandparent

a speaker had, the odds of the variant used being classified as standard /s/ decreased by 38.5% (SE= 0.1801, z= -2.695, p=0.00705). There are several factors that may contribute to this effect, including family life surrounded by more Madrileños, less time spent than other participants in their grandparents' "pueblo"[97] outside of Madrid and a stronger claim and feeling of Madrileño identity[98]. When considering these factors and the finding that the more Madrid grandparents a speaker has, the more likely s/he is to use the nonstandard /s/ variants, it appears that the nonstandard /s/ is, as the perception study and the pilot CMC data suggest, deeply associated with Madrid.

4.3.2.2 Standard /s/ versus velarized /s/

As the logistic regression mixed model analysis required a binary variable, the analysis presented above included all nonstandard /s/ variants in one group, contrasted then with standard /s/. Here the analysis focuses specifically on the velarized variant and the factors that condition its production rather than a standard /s/ variant. The results of this analysis are very similar to those of the standard /s/ versus nonstandard /s/ analysis, once again reading time, order, syllabic position and number of grandparents from Madrid found to be the significant factors conditioning /s/ realization. As before, the individual effect of each factor is presented below, although graphs are not included, the data having already been visually represented above in section 4.3.2.1.

[97] The phrase "mi pueblo" (*my town*) is frequently used in Spain to talk about where one's family is from, where many holidays and weekends are spent; e.g., *este fin de semana me voy a mi pueblo* (*This weekend I'm going to my town*), referring to spending the weekend in one's parents' or grandparents' original small town.

[98] As explained earlier, a *true Madrileño* is referred to as a *gato*. It is commonly accepted that in order to be a *gato*, one must have four grandparents from Madrid. In a city full of immigrants, being a *gato* is a source of Madrileño pride.

As in the previous analysis, the second reading time is more likely to contain more velarized variants. In fact, the odds of the variant being classified as velarized /s/ increase by 3.06 times the second time the reading task is performed (SE= 0.2289, z= 4.882, $p \leq 0.001$). Next, the order in which the word or phrase was read also influences variable realization, the odds of the variant being classified as velarized /s/ increasing by 4% for every additional word or phrase read (SE= 1.2603, z= -4.978, $p \leq 0.001$). As for the linguistic factor of syllabic position, when the syllabic position is initial, the odds of the variant being classified as velarized /s/ decrease by 99.2% (SE= 0.0078, z=4.975, $p \leq 0.001$). Finally, just as with the standard /s/ versus nonstandard /s/ analysis, the number of Madrileño grandparents a speaker has is also an important factor. With each additional Madrileño grandparent the speaker has, the odds of the variant being classified as velarized /s/ increase by 2.02 times (SE=0.29178, z= 2.417, p= 0.015). These results reiterate those findings of the above analysis in which nonstandard /s/ included not only the 220 instances of velarized /s/ in the data, but also those 352 instances of aspirated /s/ and 114 tokens in which /s/ is elided. In the following section, the results of the two segmental analyses are summarized in a comparative fashion.

4.3.2.3 Summary

The analyses presented here found that the significant factors conditioning the /s/ variable are the reading time, order, syllabic position and number of grandparents from Madrid. The effects were the same, with a second reading time, a later order, a syllable final position and more Madrileño grandparents increasing the odds of a nonstandard variant being produced. While the factors conditioning the variable and their effect were the same, the strength of the effect was slightly stronger with the velarized /s/. As for the significance

level, the effects of reading time, order and syllabic position were significant at the highest level, $p \leq 0.001$, while number of Madrileño grandparents had a weaker significance level, $p = 0.00705$ for nonstandard /s/ and $p = 0.015$ for velarized /s/. These results are compared and summarized below in Table 12.

Reading time		Order		Syllabic position		Number of Madrileño grandparents	
The odds that the /s/ will be **nonstandard** increase the second time by:	The odds that the /s/ will be **velarized** increase the second time by:	With each additional word/ phrase, the odds that the /s/ will be **nonstandard** increase by:	With each additional word/ phrase, the odds that the /s/ will be **velarized** increase by:	When the /s/ is in initial position, the odds that it will be **nonstandard** decrease by:	When the /s/ is in initial position, the odds that it will be **velarized** decrease by:	With each additional grandparent from Madrid, the odds that the /s/ will be **nonstandard** increase by:	With each additional grandparent from Madrid, the odds that the /s/ will be **velarized** increase by:
2.13x	3.06x	2.4%	4%	98.7%	99.2%	1.65x	2.02x
***	***	***	***	***	***	**	*

Table 12: Effects of significant factors conditioning /s/ realization, separated by the general nonstandard /s/ analysis and the specific velarized /s/ analysis.

4.4 THE CURRENT FINDINGS COMPARED WITH PREVIOUS STUDIES

As presented in section 4.3.1, the distribution of discrete variants in the production data used in this study is comparable to that of previous studies conducted in and around Madrid, although a direct comparison is not possible. The current study found standard /s/ to be used 87.8% of the time, while the aspirated variant was used in 6.3% of the cases, the elided variant 2% and the velarized variant 3.9%. Table 13 below provides a comparison of this distribution of variants to those found by Turnham and Lafford (1995) and Momcilovic

(2005) within Madrid, and Henriksen and Harper (2016) 70 kilometers outside of Madrid in Toledo.

	[s]	[h]	[ø]	[x]	*Assimilated*
Current findings	**87.8%**	**6.3%**	**2%**	**3.9%**	*NA*
Turnham and Lafford (1995)[99] Reading: Wordlist	99.1%	*NA*	0%	0.9%	*NA*
Turnham and Lafford (1995) Reading: Text	87.6%	*NA*	4.1%	8.2%	*NA*
Momcilovic (2005) Reading: Wordlist	93%	3.3%	.08%	*NA*	2.9%
Momcilovic (2005) Reading: Text	81.3%	9.2%	4.1%	*NA*	5.4%
Henriksen and Harper (2016)[100] Continuous speech (5 min)	55%	22.2%		22.7%	*NA*

Table 13: Comparison of variant distribution with previous studies in and around the Madrid region

The two studies on Madrid Spanish referenced above are the only two other sociolinguistic studies of /s/ in Madrid, to the best of my knowledge, and the findings of each will be compared here with the results of the current study.

The two factors that both Turnham and Lafford (1995) and Momcilovic (2005) find to significantly affect variable realization are style and gender. In their study of exclusively /sk/ clusters, Turnham and Lafford (1995) find that wordlist readings produce the most standard variants, followed by a text reading and finally the conversation data. Momcilovic (2005) finds the same to be true of her data which encompasses all contexts of /s/. In the current study, style, that is, whether a speaker read a word or a phrase, was not found to significantly condition the /s/ variable.

[99] I remind the reader that Turnham and Lafford (1995) only considered /s/ in /sk/ clusters.
[100] Henriksen and Harper (2016) results come from data collected in Toledo, a city in the Castile-La Mancha region of Spain, some 70 kilometers from Madrid.

As for gender, Turnham and Lafford (1995) discovered that men used standard /s/ less than women, and velarized /s/ more than twice as much. Momcilovic (2005) also finds that male speakers use more nonstandard variants than the female participants, who lead in standard /s/ use. The findings of these two studies somewhat echo the distribution seen in the data of the current study; however, the analysis did not show gender to have a statistically significant effect on variable realization. Table 14, below, outlines the role of gender in the reading tasks of the three Madrid studies. As can be appreciated in the table, the discrete variant distribution according to gender does appear to be more notable in the data from Turnham and Lafford (1995) and Momcilovic (2005), and thus it is not surprising that while these two studies found gender to play a significant role in variant realization, the current study did not. It should also be noted that in their discrete analysis of /s/ in Toledo Spanish, Henriksen and Harper (2016) did not find gender to be a significant factor either.

	[s]		**[h]**		**[ø]**		**[x]**		***Assimilated***	
	M	F	M	F	M	F	M	F	M	F
Current findings	**85.4%**	**90%**	**6.9%**	**5.7%**	**2.3%**	**1.7%**	**5.4%**	**2.6%**	*NA*	*NA*
Turnham and Lafford (1995)[101] Reading: Wordlist	98%	99.6%	*NA*	*NA*	0%	0%	1.4%	0.4%	*NA*	*NA*
Turnham and Lafford (1995) Reading: Text	80.4%	94%	*NA*	*NA*	5.6%	2.9%	13.9%	3.1%	*NA*	*NA*
Momcilovic (2005) Reading: Wordlist	88.6%	96.8%	5.2%	2%	1.3%	0%	*NA*	*NA*	5%	1.2%
Momcilovic (2005) Reading: Text	72.3%	89.5%	13.2%	5.6%	6.3%	2%	*NA*	*NA*	8.2%	2.9%

Table 14: Distribution of /s/ variable in three Madrid studies according to speaker sex, M=male and F= female

While Turnham and Lafford (1995) did not include linguistic factors as part of their study, Momcilovic (2005) considered the factor of following segment in her investigation,

[101] I remind the reader that Turnham and Lafford (1995) only considered /s/ in /sk/ clusters.

finding that this factor did indeed play a significant role in variant realization. She limited her study of following segment to the groupings of consonants, vowels and pauses and their various positions, discovering that standard /s/ appears almost categorically word-finally before a vowel and in the vast majority of the cases word-finally before a pause. Standard /s/ also appears frequently syllable-finally before a consonant and to a lesser degree word-finally before a consonant. It is these last two groups that show the most nonstandard forms. The current study differs from Momcilovic, unexpectedly, in that following segment was not found to significantly condition variable realization. The position of /s/, however, which Momcilovic examined in conjuction with the phonological environment in regard to whether /s/ came syllable or word-finally, was also found to be significant in the current study. It was not the position within the word but rather the syllabic position that was significant in the current study. Results echoed Momcilovic's findings in that nonstandard /s/ was much more likely to appear in a final position.

In addition to the factors discussed above, Turnham and Lafford (1995) found social class to play a significant role in variable realization. They based social class of their high school student participants on their parents' education level and profession. The current study did not take social class into account, but did include participant education level as a factor. Education did not play a significant role in /s/ realization in the segmental analysis. Momcilovic (2005) also included education as a factor in her analysis, finding that education was not a significant factor in /s/ realization among her data beyond the lowest level. Similarly, the factor of age was not significant in Momcilovic's study nor in the current one. Finally, the last significant social factor found to condition /s/ in the current study, the number of grandparents from Madrid, was not considered in the other two studies on /s/ in Madrid.

4.5 CONCLUSION

The current production study examined coda /s/ (including instances of coda /s/ resyllabified into the onset of the following word) in the speech of 50 Madrileños. The study sought to answer the following research questions: which nonstandard /s/ variants are used and their distribution, whether particular words or phrases affect variant use and finally, which linguistic and extralinguistic factors condition the realization of /s/.

With respect to the /s/ variants present in Madrileño Spanish, we saw that the vast majority, 87.8%, of the instances of /s/ produced were standard /s/. This number is comparable to the reading tasks of the other two Madrid studies of /s/, and we would expect this percentage to lower in continuous conversational speech. Within the 12.2% of nonstandard variants employed, about half of these were the aspirated variant (6.3%), while velarized /s/ occupied 3.9% of the data and elided /s/ only 2%. The nonstandard variants are not necessarily in complementary distribution, although nearly all cases of velarized /s/ appear before the voiceless velar consonant, /k/. It is not the case that all tokens of nonstandard /s/ before /k/ are velarized, however, as the aspirated variant also appears in this context. It does seem that the cluster /st/ is almost exclusively reserved for standard /s/, as were contexts of _/u/, _/e/, _/a/ and before a pause. As for the distribution of the variants among particular words and phrases, a clear pattern could not be established. The velarized variant did appear frequently in phrases where strong stances were taken; however, there was not enough evidence to support this claim within a reading task alone. Similarly, the premise that the velarized /s/ is used to perform a Madrileño identity, as hypothesized given the results of the pilot CMC data[102], did not have sufficient examples to be supported within the reading task data.

[102] See Chapter 2, section 2.5.

Next, the only significant linguistic factor found to condition the realization of /s/ was the syllabic position, in which a syllable-final position increased the odds of a nonstandard variant. The extralinguistic factors found to affect the /s/ variable in this study were reading time, reading order and number of grandparents from Madrid. A second reading time and a later reading order both increased the odds of a nonstandard variant being used. The last factor significantly effecting /s/ realization was related to family roots in Madrid. Having Madrileño grandparents increased the odds of a speaker producing a nonstandard variant rather than standard /s/.

The results of this study confirm and expand on what was known of coda /s/ in Madrid. As we saw in Turnham and Lafford (1995), velarized /s/ appears quite exclusively before /k/; however, corroborating the results of Momcilovic (2005), the aspirated variant also exists in the Madrileño dialect. The current results contribute a study in which both variants were considered and thus we now know that despite the characteristic *ejke madrileño*, the aspirated /s/ is actually more frequent in Madrid. Furthermore, even though we saw that the velarized /s/ is highly stigmatized in the perception study, the social factors perceived to be associated with the nonstandard /s/ did not play out in the production study, suggesting that while the *ejke* is poorly viewed, it is a variant that does not correlate with a particular social group in its production. Rather, it seems to be a variant local to all Madrileños, as suggested by the CMC pilot study, confirmed by the current perception study and corroborated here by the influence of Madrileño roots in the production of nonstandard /s/.

Chapter 5: Conclusion

In this dissertation, two complete studies on Madrileño nonstandard coda /s/ realization, and more specifically, velarized /s/, have been presented. Both the perception and production studies contribute new insights into the identities associated with velarized coda /s/, its distribution and the linguistic and extralinguistic factors that condition its use. In this chapter, the main findings of each of the studies will be reviewed in section 5.1, followed by a brief discussion of these results in tandem in section 5.2. Next, a description of ongoing investigation as well as directions for future research are provided in section 5.3. Lastly, final remarks are offered in section 5.4.

5.1 Review of main findings

5.1.1 Perception study

The first significant finding presented in the perception study is that velarized /s/ realization is indeed associated with Madrid. Upon closer study of respondent origin, however, it was found that only Asturianos, Castillanoleoneses and Madrileños associate the velarized variant with Madrid. Among these participants, it was discovered that it is the Madrileños themselves that most negatively view the nonstandard variant, judging velarized /s/ speaker guises to be less intelligent, lazier, meaner, colder, less reliable and more of a tough/bad character. Furthermore, they associate the velarized /s/ pronunciation with lower class and education and would prefer not to have the velarized /s/ speakers as friends, colleagues or employees. Likewise, they did not care for the velarized /s/ speakers' telling of the story nor did they think they would get along with the speakers. Finally, Madrileños were the participants that most often remarked that the velarized /s/ speakers' manner of speech was

incorrect. It should be noted that Manchego participants, who also employ the velarized variant in their dialect, did not notice the /s/ variable; that is, the /s/ variant used, whether standard or velarized, had almost no significant effects on Manchegos' judgments regarding the speaker guises.

Other key findings of the perception study include the effect of speaker sex. When speaker sex was considered in the analysis, the original results for certain judgments proved to be inaccurate; for instance, the result that using velarized /s/ ascribes a more insecure identity to a speaker proved to only be true for male speakers. Even more importantly, it was found that including gender in the analysis produced opposite results for certain traits; for instance, while velarized /s/ was found to be associated with a colder and less reliable character, upon considering gender, it was discovered that this was only true for female guises and that the velarized variant actually *helps* men to be viewed as more loving and trustworthy. We saw hints of this positive effect of velarized /s/ for men in the professions ascribed to the speakers. Although velarized /s/ was associated with lower-level positions across both genders, there were indications that velarized /s/ afforded women "male competence", allowing them to be considered for more traditionally male professions such as engineer or scientist.

The gender of the respondents was also found to play a significant role in perception of the /s/ variable. Women judged the velarized variant more negatively than men, while at the same time showing a higher regard for the standard variant than their male counterparts. Interestingly, this was not found to be the case for judgments of class and education, as there was no significant interaction found between respondent gender and the judgments made for these particular traits.

5.1.2 Production study

Although the perception study showed that velarized /s/ is indeed associated with Madrid, in the production study the velarized variant was only found to be present 3.9% of the time in the speech of the 50 Madrileño participants. In fact, it was the aspirated variant that was shown to be the most frequently used nonstandard variant, with an occurrence of 6.3%. It bears repeating that the frequencies for all nonstandard variants are quite low, as would be expected, given that the data is taken from reading tasks. It is also important to note that these two variants were not in complementary distribution. While the velarized /s/ appeared almost exclusively before /k/, the aspirated variant appeared in many contexts, including before the voiceless velar consonant.

In order to discover the linguistic and extralinguistic factors that condition /s/ realization, a statistical analysis of the various discrete categories heard by native-speaker coders was carried out using generalized linear mixed models. The analysis showed the /s/ variable to be significantly influenced by syllabic position, reading time, reading order and the number of grandparents from Madrid that a speaker had. More specifically, a later reading time and reading order, a syllable-final position and more Madrileño grandparents all raised the odds of a nonstandard /s/ being produced.

5.2 DISCUSSION OF RESULTS IN TANDEM

Although there are particular aspects of the perception and production study that complement each other, the two studies also provide conflicting results that will perhaps be elucidated through an investigation of the /s/ variable in conversation. The perception study showed that velarized /s/ is clearly viewed very negatively by Madrileños, and thus one would expect social factors to play a larger role in the realization of the /s/ variable; nonetheless, this was not the case. One example is that although Madrileños categorize

velarized /s/ speakers as lower in class and education, this was not reflected in the factors conditioning /s/ realization in the segmental analysis. Similarly, although gender played a significant role in the perception study, both speaker sex and respondent gender significantly influencing how /s/ is perceived, it was not found to significantly affect /s/ realization in the production study.

An area in which the findings of the two studies corroborate each other is that of velarized /s/ and its tie to a Madrileño identity. In the perception study, it was seen that a velarized /s/ pronunciation significantly helped a speaker to be identified as Madrileño. This is reflected in the production study, as Madrileño roots are found to condition /s/ realization. It was shown that with each additional Madrileño grandparent a speaker has, the odds of him/her producing a nonstandard/velarized /s/ increase. It is the hope that future production research, specifically that of conversational speech from the interviews conducted, will provide further connections between the findings of the perception and production studies. In this vein, directions for future and ongoing research are presented in the following section.

5.3 FUTURE AND ONGOING RESEARCH

5.3.1 Perception

One factor that was not addressed in the perception study presented in this dissertation is the question of ethnocentrism and the tendency for people to judge speakers more positively when they believe they come from the same region. Garret (2010) explains that ethnocentrism is a significant factor in language attitudes, and that this may produce negative attitudes towards speakers viewed as having a different place of origin. By the same token, participants may give the most positive ratings to the speakers they believe to

be characteristic of their own region. This was touched upon slightly in the analysis, in which the opposite result could be found: Asturianos and Castillanoleoneses identified velarized /s/ speakers as originating from Madrid and yet still viewed the speakers far more positively than did the Madrileños themselves. These findings, however, are the result of respondents from particular regions being treated as a whole; that is, individual participants were not coded for whether they thought the speaker shared their place of origin, and thus this particular lens was not included in the analysis. A study focusing specifically on how listener judgments differ according to where the participant believes the speaker to come from and whether they shared the same origin remains for future research.

5.3.2 Production

In the perception study, we saw that overall, the velarized /s/ was negatively viewed in nearly all judgments made. Even so, it was possible to appreciate in the distribution of data a stronger influence from the velarized variant in those characteristics associated with competence as opposed to affective qualities, although the arguably most affective adjective pair seemed to be more susceptible to the variable. These degrees of social meaning associated with velarized /s/ were not further explained in the production study presented in this dissertation. Continued production research, both in speech as well as written computer-mediated communication (CMC), will afford a more in-depth understanding of how nonstandard /s/ is used within communication to create social meaning. Furthermore, as mentioned in Chapter 2, an anlysis of oral production focusing on the subsegmental properties of /s/ still remains to be done.

5.3.2.1 Conversational speech

In between the two reading task recording sessions, the data from which the production analysis presented in this dissertation is comprised, a small group sociolinguistic interview of about 1- 1.5 hours took place. The data collected from these group interviews will be used for the next step in this ongoing research. The aim of this investigation is twofold. First, the factors considered in the current study will be included in the analysis with the objective of corroborating the findings of the reading tasks in conversation. A second objective is to consider the context in which /s/ occurs within the interview, taking into account the topic of discussion, relationships between participants and stances being taken within the conversation. Hay and Drager claim that "phonetic variables can index stances and these stances may broadly correlate with different social groupings" (2007: 93), and indeed, based on the findings of the perception study, it is expected that discourse context and stance will play an important role in the distribution of variable use according to gender. Although gender was not a significant factor in the segmental analysis of /s/ realization in the reading tasks, perhaps examining *how* men and women are using velarized /s/ will allow insight regarding gender and the variable. Following the findings of the perception study, it is postulated that women will use the variable as a tool for gaining a stance of power[103], while men will use it more to demonstrate a stance of solidarity.

As aforementioned, the content of the conversations will also be considered. Based on the findings of the CMC pilot study presented in Chapter 2, it is hypothesized that certain topics will trigger the use of velarized /s/ rather than standard /s/. The patterns of use seen in the online orthographic representations of nonstandard /s/ suggest that velarized /s/ marks a "pure Madrileño" identity at the same time it personifies a "backwards", non-

[103] See Antaki, Condor and Levine (1996) for a discussion on how certain variables are used to warrant "authority" in stance-taking.

progressive way of political thinking, and in this way, the velarized variant is expected to arise in discussions of Madrid identity as well as in making political critiques. Thus, topics discussed during the interview included, but where not limited to, politics and Spain's financial crisis, the national Spanish team's soccer triumphs and behavioral and linguistic characteristics of Madrileños. Conversations on these topics will be analyzed closely in order to corroborate, or challenge, those patterns seen in the CMC pilot study.

5.3.2.2 Computer-mediated communication

Another robust direction for future research is an expansion of the CMC pilot study. Working with data mining tools in order to complete a more thorough study of the orthographic representations of nonstandard /s/ in Madrid will provide much insight into speakers' purposefully performing nonstandard /s/. We have seen from the production study that lenition of /s/ exists in the Madrid dialect in the forms of aspiration and elision. Furthermore, the additional variant of velarized /s/ exists in the Madrileño dialect, although it is unclear whether this variant can actually be considered a case of lenition. This salient variant becomes even more salient when it is orthographically represented in a performative manner in CMC sources. Examining the contexts in which it appears may provide some elucidation into the social meaning of velarized /s/. Hand in hand with an analysis of how different nonstandard /s/ variants are used in stance-taking in conversation, these two studies may help in unpacking when the particular variants of /s/ are used in Madrid.

5.3.2.3 Acoustic analysis

Lastly, a subsegmental analysis of the coda /s/ variable in Madrid remains to be conducted. In addition to learning more about the subsegmental properities of /s/ variation in Madrid, such an analysis would seek to examine whether gradient and discrete analyses produce the same results. In his study on Dominican Spanish in New York, Erker (2010) found that gradient and discrete analyses of /s/ indeed produced the same results, although he argued that the subsegmental analysis explained more variance. In a larger study of both Caribbean and Mainland Spanish in New York, however, Erker (2012) found incongruities in the results between discrete and continuous variable analyses. In this way, more comparative research is necessary on these two approaches to analysis. Carrying out a subsegmental analysis on the same data as that presented here in the segmental analysis will contribute to the current debate of best practices for the analysis of /s/ variation.

In addition, a subsegmental analysis will help shed light on the status of velarized /s/ as a process of lenition or fortition. Henriksen and Harper (2016) found that in the Spanish of Toledo (about 70 kilometers from Madrid), the discrete category of standard /s/ is associated with a higher center of gravity and a longer duration while the aspirated and elided variants showed the opposite results. The velarized variant showed a combination of these results, presenting the lowest center of gravity of all /s/ variants while at the same time having the longest duration. Thus, it would be informative to investigate the subsegmental properties of the velarized variant in the Madrid dialect as well, building on Henriksen and Harper's findings that velarized /s/ is not necessarily a case of lenition, given the findings of increased duration.

5.4 FINAL REMARKS

This dissertation contributes, to the best of my knowledge, the first language attitudes study of velarized /s/ realization in Spanish. From this study, we have learned that the velarized /s/ variant is indeed a marker of Madrileño identity, especially for those participants from Asturias, Castile and León and Madrid. We saw that overall, the velarized variant elicited rather negative connotations, most strongly observed among the Madrileño participants. Evidence for "covert prestige" seemed to appear in minimal cases, affording only male speakers the sole positive traits associated with velarized /s/. It should be noted that the results from the statistical analysis presented in this dissertation differ from the qualitative results obtained from the open-ended pilot language attitudes study; that is, the pilot study offered more evidence regarding positive associations of velarized /s/, as well as more strongly negative results. It is possible that participants of the current study rejected giving very negative ratings of a speaker; for instance, one respondent included a piece of advice for the researcher at the end of the survey, " 'muy tonto' suena bastante feo". At the same time, perhaps the nature of requiring respondents to make a positive or negative judgment, where less room was allowed for open-endedly imagining positive characteristics led to less frequency in positive evaluations. Furthermore, it is possible that other forced negative associations primed later ones as well[104]. In this way, while the matched guise language attitudes study confirmed the association of velarized /s/ with Madrid along with many negative associations, its ability to capture the "covert prestige" of the variant comes into question.

In addition to the language attitudes study, this dissertation also provides a production investigation of the speech of 50 Madrileño participants. New contributions

[104] In other words, having already been forced to choose "more dumb" over "more intelligent" may have primed continuous negative evaluations of the speaker in the traits that followed.

include being the first study to consider both the velarized variant and the aspirated variant in the analysis of Madrileño coda /s/. As both of these variants are present in the speech of Madrid, and furthermore were not found to be in complementary distribution, the election of the lenited variant versus the arguably strengthened variant warrants further study; i.e., the sociolinguistic interviews collected from the same participants. In addition to contributing evidence for a better understanding of the distribution of the /s/ variants present in Madrileño speech, this study offers the first look at linguistic factors besides that of following segment that may condition /s/ realization. Also, based on findings from the pilot CMC study, the extralinguistic factor of Madrid roots was included in the study, proving to be statistically significant in the realization of /s/. While much work remains to be done, this dissertation has contributed to the field of Hispanic sociolinguistics by filling a lacuna in what is known of the Madrid dialect, as well as provided new directions for future research.

Appendices

APPENDIX A: MATCHED GUISE SURVEY SCRIPTS

Script 1 :

En este cuento hay un niño que tiene un perro y una ranita. El niño es feliz con sus animalitos, sin embargo, una noche, mientras el niño y su perro duermen, la ranita se **escapa** de la casa sin que nadie se dé cuenta. Por la mañana el niño se pone muy triste al ver que la rana ha desaparecido, así que él y su perro deciden salir a **buscarla**. Antes de salir, **buscan** bien por toda la casa, pero no la encuentran. La llaman a voces por la ventana, y nada, la ranita no aparece por ninguna parte. Salen al **bosque** y siguen llamándola, pero la ranita no aparece. El perrito decide preguntar a unas abejas si han visto a la rana, y mientras tira al suelo el panal de abejas. Claro, las abejas se ponen furiosas y persiguen al perrito un rato. El niño, por su lado, al llamar a la puerta de la guarida de los búhos, despierta al viejo búho que también se enfada, y el niño tiene que correr para librarse del señor búho. Luego, el niño se agarra a los cuernos de un ciervo, pensando que son unas ramas de árboles. El ciervo, del susto, sale corriendo con el niño encima de su cornamenta. Llega con él hasta el borde de un precipicio donde frena, pero el niño y su perrito salen despedidos hasta una laguna pequeñita que hay debajo del precipicio. El niño mira a su alrededor y piensa, ahora sí, por aquí tiene que estar mi ranita. Va con el perrito a mirar detrás de un tronco que se ha caído al lado de la laguna y justo ahí está la ranita y toda su familia. La rana les presenta a su familia y les explica que no pretendía asustarles, que sólo había salido a visitar a su familia un rato y que ya iba para casa. Los tres se despiden de la familia y felices vuelven a casa juntos.

Script 2:

Hay un niño que tiene un perro y una rana. Por la noche, después de jugar un rato con la rana, el niño se va a la cama con su perrito, y justo mientras el niño y su perro duermen, la rana sale del **frasco** de cristal donde la guardaba el niño. Por la mañana, al ver que la rana se ha **escapado**, el niño y su perro se ponen a **buscarla** por todas partes. Se asoman a la ventana a **buscar** en el jardín, **buscan** por toda la habitación, en todas partes, pero no la rana no aparece. Salen de la casa hacia el **bosque** y siguen llamándola, pero nada. Durante la **búsqueda** se meten en líos con varios animales, entre ellos unas abejas y un viejo búho. Después de librarse de las abejas y el búho, el niño y el perro siguen caminando y **buscando**. El niño sube a una roca, apoyándose en unas ramas mientras grita "Ranita, ¿dónde estás?" Se lleva toda una sorpresa cuando las ramas resultan ser los cuernos de un ciervo. El ciervo sale corriendo, no sé si por enfado o por el susto, con el niño encima. Va hasta el borde de un precipicio donde se deshace del niño, lanzándole hasta una laguna que hay debajo del precipicio. El perrito también se cae del precipicio, cayéndose encima del niño que ya está en el agua. No tienen otra cosa que hacer que seguir con la **búsqueda**. Se suben al tronco de un árbol que está al borde de la laguna, y al llegar al otro lado del tronco se encuentran con la ranita y toda su familia. Se saludan y luego muy feliz, el niño vuelve a casa con su perrito y la ranita.

Script 3:

En este cuento aparece un niño que tiene un perro y una rana. Por la noche mientras el niño y su perrito duermen, la rana se **escapa** del tarrito donde el niño la tiene guardada. Al despertarse por la mañana, el niño ve que ya no está la rana y se pone muy triste. Mira por la ventana a ver si está en el jardín, pero no la ve. Decide **buscarla** bien por toda la habitación, mirando en cestos, la cama, el armario, dentro de sus botas, en muchos sitios,

pero la rana no aparece en ninguna parte. Vuelve a la ventana para llamarla, pero tampoco aparece. Entonces decide salir con su perrito al **bosque.** Camina por el **bosque** llamándola, pero no da resultado. La **busca** por todas partes, en los huecos de los árboles y en los agujeros de la tierra… Durante la **búsqueda**, el niño y su perro molestan a varios animales, los cuales se enfadan bastante. Unas abejas y un búho de muy mal humor persiguen al niño y al perro durante un rato. Cuando por fin se liberan de ellos, el niño sube a una roca y se apoya en unas ramas para ver mejor. Es demasiado tarde cuando se da cuenta que las ramas no son en realidad ramas sino parte de la cornamenta de un ciervo. El ciervo lleva al niño sobre la cornamenta y le tira a una laguna pequeña. El perro también se cae en la laguna, y para poder salir de allí, el niño y el perro se suben al tronco de un árbol que se ha caído. Al llegar al otro lado del tronco grande, ven una familia de ranas, y entre ellas está la ranita del niño. La ranita se despide de su familia y vuelve a casa con el niño y el perro.

Script 4:

Pues hay un niño que tiene un perro y una rana de **mascota**. Por la noche mientras el niño duerme con su perrito, se **escapa** la rana del tarro donde la guarda el niño. Cuando el niño se despierta por la mañana, ve que ya no está la rana. Mira por la ventana, pero no ve nada, decide **buscar** por toda la habitación, dentro de sus botas, los guantes, en cualquier sitio, y no la encuentra. Llama por la ventana sin éxito, así que sale con su perrito al **bosque** a llamarla, pero tampoco le contesta la rana. Mira por todas partes, incluso en los huecos de los árboles y en la tierra… Durante la **búsqueda** se enfadan un búho y unas abejas, y por haberles molestado en sus casitas, les persiguen al niño y al perro. Luego se apoya el niño en unas ramas para ver mejor y resultan no ser ramas sino los cuernos de un ciervo. Este también se enfada y lleva al niño sobre los cuernos y le tira en una laguna que hay en el **bosque**. El perro también acaba en la laguna, y los dos **buscan** juntos como salir de esa

laguna. Se suben al tronco que se ha caído al lado de la laguna, y al llegar al otro lado del enorme tronco, ven dos ranas- mamá y papá, y luego se acercan todos los niños de mamá y papá rana. Entre esas ranitas está también la ranita del niño. Contento, saluda a la familia y se va para casa otra vez con su perrito y la rana.

APPENDIX B: MATCHED GUISE SURVEY

Here the matched guise survey is provided, downloaded in its original form from the Surveygismo site, including the IRB form, the introduction page and the survey questions. The survey pages for the first three questions have been removed for reasons of space; however, the questions were the same for each recording, with the exception of question 11, which was only included with the last two recordings, as explained in Chapter 3.

Institutional Review Board form

Para participar en esta encuesta, usted debe ser de España y tener por lo menos 18 años.
Si se ofrece a participar y da su permiso para usar los datos de la encuesta en el estudio, por favor dé al botón "siguiente" al final de la página; si no, dé al X para cerrar la ventana y desconectar.
Se le invita a participar en una encuesta que se titula "Actitudes lingüísticas hacia variables sociofonéticas y ortográficas en España". El estudio es dirigido por Robyn Wright, del Departamento de Español y Portugués en la Universidad de Texas, Mailcode B3700, Austin, TX 78712, 001 (512) 232-4546, robynw@utexas.edu. El propósito de este estudio es examinar actitudes lingüísticas hacia variables sociofonéticas y ortográficas en España. Usted necesitará aproximadamente 20 minutos para completar la encuesta. Siéntase libre de ponerse en contacto con la investigadora por medio de correo electrónico o número de teléfono para hablar de la encuesta.

Su participación no supone ningún riesgo, ni tampoco conlleva ningún beneficio. Números de identificación asociados con correos electrónicos serán borrados de los datos guardados.

Su participación en la encuesta es voluntaria. Tiene la opción de dejar en blanco la respuesta a cualquier pregunta y tiene el derecho de dejar la encuesta en cualquier momento. Si decide que no quiere que se utilice su encuesta en el estudio, o tiene alguna duda, puede comunicarselo la investigadora, Robyn Wright.

Este estudio ha sido examinado y autorizado por el tribunal institucional (Institutional Review Board) de la Universidad de Texas – Austin. Si tiene alguna pregunta sobre sus derechos como participante, o no se encuentra satisfecho con ciertos aspectos del estudio, puede contactarse con el tribunal institucional por medio del teléfono, 001 (512) 471-8871, o por correo electrónico, orsc@uts.cc.utexas.edu.

Número de autorización del IRB: [2011-07-0034]

¡Gracias!

A continuación, usted va a escuchar 4 grabaciones, y después se pedirá que conteste algunas preguntas sobre su impresión de la persona que habla en cada grabación

Al nada más conocer a alguien, usamos varios rasgos para llegar a nuestras conclusiones, entre ellos es la voz y la forma de hablar de alguien. A veces ni siquiera lo conocemos, basta una conversación telefónica para ya tener una imagen mental de la apariencia física, la personalidad, la situación económica, el lugar de origen, etc. de la persona.
Las grabaciones son de aproximadamente dos minutos cada una- todas narran el cuento "Ranita, ¿dónde estás?". Es un cuento que consiste únicamente de dibujos, y se les ha pedido a los hablantes que narren con sus proprias palabras el cuento basándose en los dibujos.

Oprima el botón 'siguiente' para pasar a la grabación 1.
Por favor, no oprima el botón 'atrás'- el cuestionario se perderá y no podrá volver a la página en que estaba.

Oprima el botón 'siguiente' para pasar a la grabación 4.
Por favor, no oprima el botón 'atrás'- el cuestionario se perderá y no podrá volver a la página en que estaba.

Grabación 4: El hablante 4 nos cuenta la historia.

1. ¿De dónde es esta persona?

- Andalucía
- Aragón
- Asturías
- Asturias
- Baleares
- Canarias
- Cantabria
- Castilla-La Mancha

- Castilla y León
- Cataluña
- Comunidad Valenciana
- Extremadura
- Galicia
- La Rioja
- Comunidad de Madrid
- Navarra
- País Vasco
- Región de Murcia
- No es de España
- Otro::

2. ¿Cómo cree que será esta persona?
A. A continuación se le mostrarán ocho pares de adjetivos. Por favor, decida cuál adjetivo de cada par mejor describe a esta persona. Un puntaje de (1) significa que Ud. Está completamente de acuerdo que el adjetivo a la izquierda mejor describe a la persona. Un puntaje de (6) significa que está totalmente de acuerdo que el adjetivo a la derecha mejor describe la persona. Puede elegir cualquier puntaje entre 1-6.

i. Inteligente/Tonta

1, Muy inteligente 2 3 4 5 6, Muy tonta

ii. Perezosa/ Trabajadora

1, Muy perezosa 2 3 4 5 6, Muy trabajadora

iii. Maja/ Raspa

1, Muy maja 2 3 4 5 6, Muy raspa

iv. Divertida/ Aburrida

1, Muy divertida 2 3 4 5 6, Muy aburrida

v. Simpática/ Antipática

1, Muy simpática 2 3 4 5 6, Muy antipática

vi. Seca/ Cariñosa

1, Muy seca 2 3 4 5 6, Muy cariñosa

vii. Insegura/ Segura

1, Muy insegura 2 3 4 5 6, Muy segura

viii. Buena persona/ Mala persona

1, Muy buena persona 2 3 4 5 6, Muy mala persona

B. A continuación se le mostrarán cuatro adjetivos. Por favor, en una escala de 1-7, elija el valor que cree que describe mejor a la persona. Un puntaje de 1 significa que no la describe en absoluto y un puntaje de 7 significa que la describe perfectamente. Al lado de cada adjetivo, por favor, escriba un sinónimo para ese adjetivo de acuerdo al puntaje que le asignó en la escala de 1-7.

i. Graciosa

1, No la describe en absoluto 2 3 4 Neutral 5, 6, 7 La describe perfectamente

Sinónimo:

ii. Seria

1, No la describe en absoluto 2 3 4 Neutral 5, 6, 7 La describe perfectamente

Sinónimo:

iii. Fiable

1, No la describe en absoluto 2 3 4 Neutral 5, 6, 7 La describe perfectamente

Sinónimo:

iv. Malote

1, No la describe en absoluto 2 3 4 Neutral 5, 6, 7 La describe perfectamente

Sinónimo:

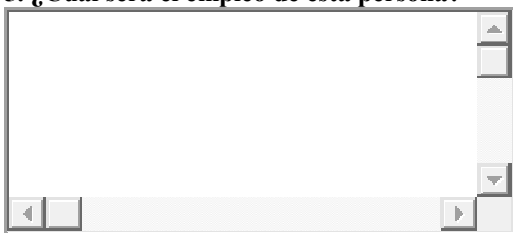
3. Si tuviera que adivinar el nivel de educación de esta persona, ¿cuál elegiría?

- primaria
- secundaria
- universidad
- estudios posgrados
- estudios técnicos

4. Si tuviera que adivinar la clase económica de esta persona, ¿cuál elegiría?

- baja
- medio-baja
- media
- medio-alta
- alta

5. ¿Cuál será el empleo de esta persona?



6. En una escala de 1-7, ¿le gustaría tener a esta persona de amigo?

1 (No, de ninguna manera) 2 3 4 (Neutral) 5 6 7 (Sí, muchísimo)

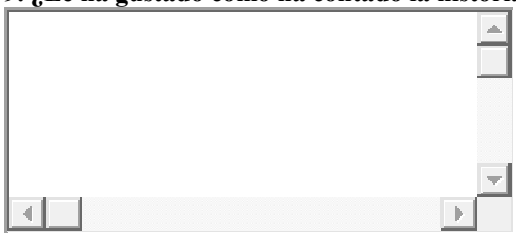
7. En una escala de 1-7, ¿le gustaría trabajar con esta persona?

1 (No, de ninguna manera) 2 3 4 (Neutral) 5 6 7 (Sí, muchísimo)

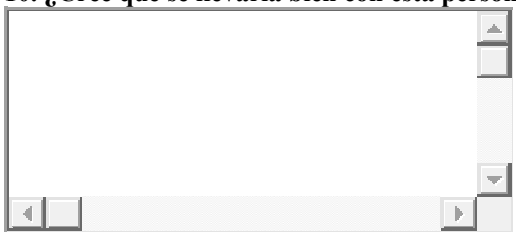
8. En una escala de 1-7, ¿si fuera usted jefe, contrataría a esta persona?

1 (No, de ninguna manera) 2 3 4 (Neutral) 5 6 7 (Sí, muchísimo)

9. ¿Le ha gustado cómo ha contado la historia? ¿Por qué?



10. ¿Cree que se llevaría bien con esta persona? ¿Por qué sí o por qué no?



11. ¿Puede identificar algunos rasgos del habla de esta persona que le han permitido llegar a sus respuestas a las preguntas anteriores? En general, ¿qué le parece la manera de hablar que tiene esta persona?

¡Gracias por su participación y ayuda con este proyecto! ¡Casi ha terminado!

Para el análisis de las respuestas y por cuestiones de estadística, se necesitan los siguientes datos:

¿De qué región de España es usted?

¿Siempre ha vivido en la misma región? Si no, ¿en qué otra parte ha vivido?

¿Sus padres son de la misma región?

¿Cuántos años tiene usted?

Género:

- Hombre
- Mujer

APPENDIX C: ENGLISH TRANSLATION FOR PROFESSION TAG CLOUDS

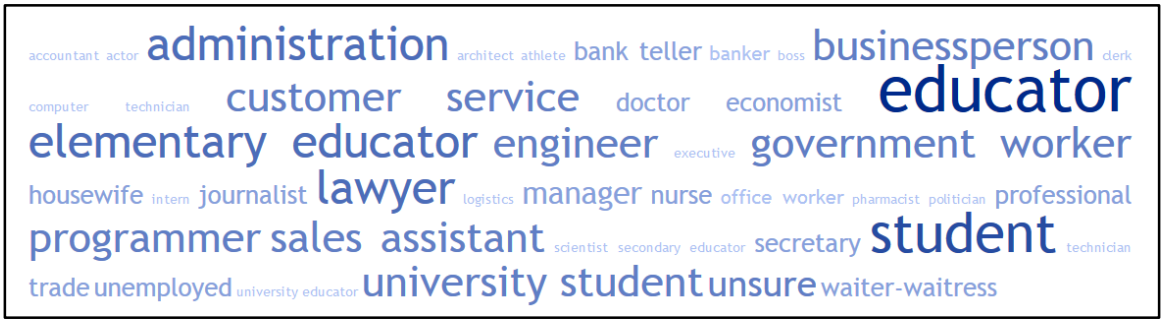


Figure 69: Professions ascribed to [s] speakers, English translation

Figure 70: Professions ascribed to [x] speakers, English translation

APPENDIX D: LIST OF READING TASK WORDS AND PHRASES

WORDS

Extraño

Café

Mirar

Bostezar

Llámame

Cuidado

Explicar

Triste

Pincho

Rosa

Cigüeña

Caminata

Botella

Dormido

Catedral

Paisaje

Aceituna

Navideña

Nublado

Convincente

Bosque

Buscar

Escribir

Escuela

Espérate

Espabílate

Mosca

Fresco

Pescado

Atasco

PHRASES

Es que lo flipo tío.

¿Pero qué me estás contando?

Qué asco, tío.

¿Quién ganó el mundial? ¡España!

¡Vamos España!

¿Sabes lo que te quiero decir?

Qué fuerte tío. Es que lo flipo.

¿Me puedes explicar por qué a los madrileños les dicen "los gatos"?

Qué pasa, tronco

Es que estoy todo rallado.

Es que estoy tó rallao.

¡Ostias! ¿Te ha escrito ese tío?

Que me mosqueo, tío.

Eres más agarrado que un chotis.

¿Te das cuenta?

Pero, ¿te das cuenta?

Los madrileños de pura cepa son los gatos.

Qué asco de partido.

¡Mola mazo!

Hombre, es verdad.

¿Yo? ¡Soy de Madrid!

No jodas. No le escribas tanto a tu chico.

Soy la más mala y la más chula de Móstoles.

Soy la más mala y la más coqueta de Móstoles.

¿A ti te gusta Esperanza Aguirre?

¡Hombre, pues claro!

¡Que me descojono!

Eres un espabilao.

¡Que pasa neng!

Di que sí.

¿A que sí?

Yo es que me parto.

Vaya friki.

Vaya cagada macho.

Este va de colgao.

Va a ser que no.

¡Va a ser que sí!

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