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El andaluz y el español estadounidense: Exploring traces of Andalusian sibilants in U.S. Spanish

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**El andaluz y el español estadounidense:
Exploring traces of Andalusian sibilants in U.S.
Spanish**

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1.0 Introduction

Since Wagner's (1920) initial proposal of the Andalusista Theory, there has been constant debate over the power and influence of Andalusian Spanish during the period of Spain's initial arrival and colonization of the Americas. This theory originally dictated that due to Andalusia's role during the period of colonization, its dialect of Spanish became incredibly influential in the formation of Spanish as a language in the Americas. This theory has been widely debated and its application to all of Spanish-speaking America considerably reined in; Wagner himself (1927) qualifies that it is not as influential in some regions in Latin America as it is in others. While its connection to various regions and dialects of Spanish has been studied and either confirmed or rejected, these studies have always compared Andalusian Spanish with dialects in Spanish-dominant countries of Latin America. Spanish as spoken in the United States, on the other hand, has not previously been included in the conversation on this theory. Spanish in the United States occupies a unique position because, due to its constant exposure to English and the potential for contact between different varieties of Spanish, it has in many places undergone additional linguistic change. Considering these additional influences, Spanish in the U.S. likely differs from its Latin American counterparts. Because of this, any traces of Andalusian Spanish left from its historical relationship with Latin American Spanish likely manifest differently in U.S. Spanish.

According to Weinreich (1953 [1974]), the bilingual population is the initial epicenter of language contact; if a language is going to undergo change as a result of contact with another language, this change will surface first in the bilingual population.

In the United States, the population that is bilingual in both Spanish and English is enormous, to the point where Spanish is the second most commonly spoken language in the country and the fastest growing minority language (Lipski 2008: 1). In 2008, 47 million people in the United States reportedly spoke a language other than English at home, and of those people 28 million reportedly spoke Spanish as the other language (Klee & Lynch 2009: 204). This Spanish-speaking population is spread throughout the United States, though there are particularly high concentrations in areas like New York, Florida, Illinois, and the Southwest (Pew Hispanic Center 2018).

That said, the Spanish-speaking population of the United States is incredibly diverse and has many different origins and lived experiences in the United States. After the Republic of Texas won independence from Mexico and then became a state in the U.S., and after the Mexican-American War's Treaty of Guadalupe-Hidalgo in 1848 and the Gadsden Purchase, the entire track of land that now constitutes the American Southwest became part of the United States (Lipski 2008: 2). Tens of thousands of people who were previously Mexican citizens became Americans when the borders shifted, suddenly creating a huge Spanish-speaking contingent in the new territories of the American Southwest. A similar situation occurred with Puerto Rico after the Spanish-American War ended. These communities are one source of the vast Spanish-speaking population in the U.S., but still other Spanish speakers came to the U.S. themselves (as opposed to the U.S. "coming to them" in the previous example). The Bracero program recruited hundreds of thousands of Mexican workers to work in the United States, many of whom stayed as permanent residents (Lipski 2008: 2).

Additionally, other Latin Americans came to the United States as immigrants from Latin America, especially during the '80s and '90s (Klee & Lynch 2009: 199).

As a result, the United States has the fifth largest Spanish-speaking population of the world, but the speakers come from many different backgrounds, and as a result speak very different varieties of Spanish. As a result of this variation, there is a high chance of speakers of different varieties coming into contact, which, depending on the situation, could affect one or both speakers' way of speaking. Additionally, while English is not an official language of the United States, it is certainly the dominant language, and therefore comes into contact with Spanish and can affect it.

The possibility for change through dialectal contact and language contact creates a unique environment for Spanish in the United States, and therefore it experiences pressures and undergoes changes that differ from Spanish spoken in Spanish-dominant Latin American countries¹. Given this distinct status and these new influences, it is possible that Spanish as spoken in the United States holds even less in common with Andalusian Spanish because it has undergone additional changes and leveling. The present study aims to find possible traces of Andalusian influence in Spanish in the U.S. after dialect leveling and contact with English have taken place. It will focus on the realization of sibilants in the speech of 10 native Andalusian speakers and 11 Spanish-speakers who have lived in the United States for at least 10 years. The study will

¹ While Spanish in Latin America is certainly in contact with many indigenous languages, transfer from these languages to Spanish in bilingual populations is usually limited to intonation, rhythm, and possibly some segmental features (Lipski 1994: 109). Most adaptations from indigenous languages consist of lexical items, but there are some places, such as Paraguay, where the indigenous language has considerably influenced the local Spanish variety. However, since Paraguay is rather inland and experienced notable isolation during colonization, it does not share the same tie with Andalusian Spanish as other varieties.

analyze the treatment of syllable-final /-s/ and the realization of the letters <s>, <c>, and <z> to determine which phone is used. The pronunciation of syllable-final /-s/ is variable throughout the Spanish-speaking world, so its realization in the speech of the U.S. speakers² may differ depending on their own dialect³ or the dialects with which they come into contact. Additionally, <s>, <c>, and <z> are largely all pronounced as [s] in Latin America (and likely the U.S. as well), their pronunciation is variable in Andalusia, so they may or may not resemble the pronunciation of the U.S. participants.

1.1 Andalusista Theory

The study of the possible influence of Andalusian Spanish over Spanish in Latin America exploded in the 1920s with the debate between two scholars, Pedro Henríquez Ureña, who rejected the theory, and Max Leopold Wagner, who supported it. The theory's basic premise is that Andalusian Spanish played a pivotal role in the formation of Spanish in Latin America during the period of colonization more so than any other dialect from Spain, and draws support from two main areas. First is the linguistic evidence based on the timeline of phonetic changes that were common among southern Spanish dialects and Latin American dialects during the period of colonization. Second, the theory includes the demographics of the Spanish colonizers and their origins, focusing specifically on what portion of the settlers came from Andalusia (del Valle 1998: 132; Peter

² The participants are currently living in the U.S. Though they may not be citizens, they are current long-term residents.

³ For the purposes of this paper, a dialect will be defined as collection of varieties of Spanish that share certain linguistic features and regional origin. Though there is no discrete line determining where one dialect starts and another ends, for simplicity we will define dialects according to their geographic locations and/or national borders (e.g. Caribbean dialect, Mexican dialect, etc.).

Boyd-Bowman 1956, 1976). While Wagner (1920; 1927) was the first to submit scientific evidence in favor of the Andalusista Theory, he later added some qualifications, one being that perhaps there were some regions of Latin America that were exempt from the theory and thus were not so heavily influenced by Andalusian Spanish (del Valle 1998: 133).

Of all the phonetic traits that are included in this theory, the most prominent one is *seseo*, or the pronunciation of the graphemes <s>, <z>, and <c>⁴ as the alveolar fricative [s], which is in opposition of the traditional peninsular distinction (*‘la distinción’*) maintained throughout northern and central Spain. In Andalusia, there exists a spectrum of speech modes: *seseo*, described above; *ceceo*, in which <s>, <z>, and <c> are all pronounced as the interdental fricative [θ]; and *distinción*, in which <s> is pronounced as [s] and <z> and <c> are pronounced as [θ], which is the norm throughout the rest of Spain; and all the possibilities in between these three modes. Different cities or regions of Andalusia may tend toward one mode or another; for example, Seville is known for its *seseo* while Granada has a reputation for *ceceo*. That said, the speech style depends on the person, and it is very common for an Andalusian person to deviate from their default speech mode and use either [s] or [θ] (or sometimes an intermediate sound) where they would not normally use it, for example using [s] in ‘cien’ or [θ] in ‘eso’ (Dalbor 1980). The majority⁵ of Latin America uses *seseo*, which exists in Andalusia, particularly in Seville, but generally not in any other part of Spain. Additionally, the /s/ in northern and central Spain is often apico-alveolar, meaning that it is pronounced using the tip of the

⁴ <c> when it is followed by the front vowels /i/ or /e/; in all other cases it is pronounced as [k].

⁵ With the exception of one pocket in northern México, where *ceceo* does exist but is heavily stigmatized (Lipski 1994: 59).

tongue and has an almost whistle-like quality to it, which differs from the predorso-alveolar [s] pronounced using more of the blade of the tongue. This predorso-alveolar [s] is the most common version of /s/ found in Latin America, and is also found throughout Spain (Dalbor 1980: 5).

Studies by Rafael Lapesa (1957, 1964, 1992) show that *seseo* had been established in Andalusia before the 16th century, and thus already existed in Andalusia when Spaniards began boarding ships to sail to the newly discovered Americas. Juan Frago Gracia (1989) also affirmed through the analysis of various texts from that period that not only was the vacillation between [s] and [θ] already established in Andalusia, but there was an “intense predominance” of the use of [s]; in other words, *seseo* (Frago Gracia 1989: 286). Frago Gracia then compared these results with those from documents written in Latin America during the period of colonization in the mid to late sixteenth century, and found a linguistic situation similar to that of Andalusia at the time (Frago Gracia 1989: 292).

Seseo is the strongest example of a phonetic trait from Andalusia also being found in Latin America for two reasons: first, it is exclusive to the Andalusian varieties of Spanish in Spain and second, it is shared by nearly all of Latin America. That said, there are several other phonetic traits found in Latin America that have been linked back to Andalusia as well, such as the weakening of syllable-final /-s/ and the neutralization of /l/ and /r/, among others (Frago Gracia 1989: 279; Silva-Corvalán 2001). The weakening of /-s/ can include a number of different phenomena, such as aspiration⁶ of /s/, in which the

⁶ In general phonetics, this process is referred to as debuccalization.

/s/ loses its original place of articulation and moves to the glottis, thus being realized as [h] instead of [s], or deletion of /s/, in which the /s/ is completely left out of the pronunciation. Though it will be discussed in the next section, it is worth noting here that weakening of syllable-final /-s/ is a trait that is found in many varieties of Spanish throughout Latin America, but it is not universal, and is not, for example, typically found in varieties of Mexican Spanish away from the coast. In addition to the examination of *seseo/ceceo/distinción*, the present study will investigate this weakening of /-s/ in the speech of the participants.

Beyond the linguistic evidence in support for the Andalusista Theory, the demographics of the Spanish colonizers also play into the theory. Peter Boyd-Bowman (1956, 1976) examined Spanish migration to Latin America from the beginning of colonization until the year 1600 and found some noteworthy patterns. During this time period, Seville, the capital of Andalusia, served as the central connection for all travel and business between Spain and its new colonies. Seville's pivotal role as the gateway to the Americas for Spaniards contributes to the Andalusista Theory in several ways. As Boyd-Bowman (1956, 1976) notes, while the flow of settlers from other regions of Spain was often irregular and usually tied to the emigration of a high-ranking person and his entourage, emigration of Andalusia and Seville especially was always consistent and grew considerably throughout the years. By the year 1600, settlers from Andalusia comprised over one third of all people leaving from Spain for the Americas, which is the largest percentage of settlers from any region leaving from Spain during this time. Aside from the Andalusian settlers, all other settlers from various regions of Spain had to pass

through Andalusia; in many cases, they did not gain passage right away, and so while they remained in Seville or nearby for their turn, they were inevitably exposed to the traits of Andalusian Spanish, and continued to be exposed throughout the voyage to the Americas (Lipski 1994: 51). As Boyd-Bowman notes, “there was a vast maritime empire between Spain and the ports of America, the ports of which were linked by sea to Seville (and to each other) along trade routes controlled and maintained predominantly by Andalusian sailors and merchants” (1976: 604). Boyd-Bowman asserts that the phonetic characteristics shared particularly by coastal regions of the Latin America and Andalusia are linked to both the number of Andalusian colonizers, as well as Seville and Andalusia being at the heart of the connection between the colonies and Spain (1976: 604).

On the other hand, there are some qualifications to the Andalucista Theory. As previously mentioned, Pedro Henríquez Ureña (1921) rejected the theory, asserting that the phonetic traits used as evidence are not exclusive to Andalusia, and that they are not shared throughout all of Latin America. Operstein (2017) also indicates that Castilian Spanish was more dominant in certain areas of Mesoamerica. Since its original conception, the theory has been reined in a bit to support a tie between Andalusia and coastal areas of Latin America, but not necessarily the more inland regions (Lipski 1994: 62). Evidence of the apico-alveolar /s/, known in northern and central Spain but not in Andalusia, has been found in certain areas of Colombia, Bolivia, and Peru, which calls into question just how strong Andalusia’s influence regarding Latin American *seseo* actually was (Lipski 1994: 58-59). In regard to the demographics of the passengers leaving Spain for the Americas, while Andalusia did contribute the largest number of

settlers, they never constituted a majority (Lipski 1994: 52). Essentially, coastal regions share more similarities with Andalusian Spanish than inland areas, especially areas that became viceroyalties early on and thus had stronger contact with the Spanish Crown, such as Lima and México City (Lipski 1994: 62, Boyd-Bowman 1988).

In summary, the Andalucista Theory hypothesizes that certain phonetic characteristics of Andalusian Spanish were absorbed into Latin American Spanish during its initial development due to Andalusia's role in Spain's maritime empire and its significant contribution of settlers. That said, its influence was not evenly distributed over all of Latin America, and due to the increased contact that certain viceroyalties had with the Spanish Crown early on, and Andalusian influence mostly stemming from the maritime activity, Andalusian Spanish shares more phonetic similarities with coastal regions and the Caribbean than with inland regions. Additionally, other languages, such as indigenous and African languages, also may have influenced Latin American Spanish during this time, though it seems most of their contributions have been lexical. It is important to note, as will be discussed in the following sections, that Latin American Spanish is in no way simply an extension of Andalusian Spanish and is itself incredibly diverse. The varieties of Latin American Spanish have continued to grow and evolve independently; though there are shared traits between some Latin American varieties of Spanish and Andalusian Spanish, they are distinct.

1.2 Spanish in the United States

As previously stated, Spanish in the United States has two separate levels of contact that could potentially change the way bilingual Spanish speakers speak. It is entirely possible that some Spanish-speaking communities in the U.S. could also be in contact with other languages that are neither English nor Spanish, but the effects of that kind of language contact are beyond the scope of this study. Since the U.S. participants in this study are primarily bilingual Spanish and English speakers, only Spanish-English language contact will be discussed here. First, the effects of contact with English will be discussed, and then the effects of contact with other dialects of Spanish will be reviewed.

1.2.1 Contact with English

There have been a plethora of previous studies examining how one language can affect another, and Thomason & Kaufman (1988: 14ff, 74ff) confirm that any linguistic component of a language is capable of changing as a result of external linguistic influences. Today, there are various proponents of the idea that a language could have enough influence to cause change in another language. Scholars such as Clyne (2003), Curnow (2001), Gumperz & Wilson (1971), Heine & Kuteva (2005), and Silva-Corvalán (1994: 134, 166) show that grammatical changes in one language can be attributed to its coming into contact with another language. Otheguy & Zentella (2012: 16) show that Spanish contact with English, as well as other varieties of Spanish, caused a distinction between the use of personal subject pronouns in Spanish spoken in New York and that of Latin America. Other studies such as Escobar & Potowski (2015), Otheguy, Zentella, &

Livert (2007), and Lipski (2008) also support the idea that English has influenced linguistic change in Spanish in the United States.

There are several linguistic phenomena that come out of language contact, and these have been documented in the Spanish-English contact situation of the United States by scholars such as Lipski (2008), Escobar & Potowski (2015), and Klee & Lynch (2009). The first is *code-switching*, which is defined as instances of speakers switching “between codes (languages or language varieties) in the course of conversation. Next, *loanwords* are lexical borrowings that occur when “a vocabulary item from one language enters the vocabulary of another” (Swann et al. 2004: 30). A *loanshift* occurs when the meaning of an already existing Spanish word is extended to include new contexts, such as the verb “correr” (meaning ‘to run’) being used in a figurative sense such as “to run for office” (Escobar & Potowski 2015: 131). Finally, *tags* are discursive connectors that do not play a syntactic role, but rather guide the conversation. Examples from English include “you know,” “so,” “and,” and “anyway,” and Spanish examples include “entonces,” “sabes,” “pues,” etc. (Escobar & Potowski 2015: 137). While these changes are lexical, they are worth noting because they are often the first linguistic phenomena to occur in situations of contact, and while not related to sibilants, some participants in this study exhibit these traits.

Beyond the semantic and lexical influences that may come from English, there are a number of phonological and phonetic changes that may surface in Spanish in the U.S. Such changes include the pronunciation of the grapheme <v> as [v], as opposed to standard Spanish [b] or [β]; use of [v] in words that have English cognates with [v], as in

“recibir” and “receive”; the pronunciation of /r/ as the approximant [ɹ] instead of [r] or [r̄]; and finally, relaxing or centralizing vowels, such as /e/ to [ɛ] (Escobar & Potowski 2015).

Certain changes to syntactic structures have also been reported in Spanish in the U.S. These structures include using the indicative mood in place of the subjunctive, dropping the conjunction *que* in subordinate clauses, increasing the use of subject pronoun use, and extending the use of other structures to be used in new ways, especially the verbs *estar* and *hacer* (Escobar & Potowski 2015). Since syntax is not the focus of this study, it will not be described in detail here.

In some cases, such as the study conducted by Otheguy & Zentella (2012), contact with English seems to be more influential than contact with other dialects of Spanish in determining use of second person pronouns in New York City. Otheguy & Zentella suggest that even newly-arrived Spanish speakers have constant contact with English, and that “while language contact is an internal phenomenon that involves a rearranging of the features of one’s own bilingual competence, dialect contact is primarily external because it requires the adoption of new features (those of other dialects) rather than any type of reorganization of existing characteristics,” (Villarreal 2014: 74).

While it appears there is a substantial amount of evidence for influence or transference from English to Spanish in this context, it should be noted that while English may be a factor in these linguistic changes, it is not the only factor, and that Spanish may change and evolve independently of English as well; English may in some ways

accelerate the process, but does not directly cause the linguistic change in all cases (Escobar & Potowski 2015: 147). In one case, for example, Flores & Toro (2000) found that the dialectal origins of speakers in New York played a greater role in determining their use of subject pronouns than contact with English. Additionally, though Spanish in the U.S. has certainly absorbed many Anglicisms, it is important to note that it is still a valid variety of Spanish and therefore is not a partial or incomplete language. Code switching is the switching between two complete languages, and loanwords from English (or any other language) do not delegitimize that variety of Spanish (Lipski 2008: 69).

1.2.2 Contact between Dialects of Spanish

In addition to the possible effects of English, one Spanish-speaker's own way of speaking may be influenced by other varieties with which they come into contact. The consequences of different varieties of a language coming into contact have been previously documented in many studies, such as Barrera-Tobón (2013); Bookhammer (2013); Cornips & Corrigan (2005); Erker & Otheguy (2016); Flores & Toro (2000); Hernández (2009); Kerswill (1993; 1994); Otheguy & Zentella (2012); Otheguy, Zentella, & Livert (2007); Raña Risso (2013); Raymond (2012); Villarreal (2014); and Woods & Rivera-Mills (2012).

Otheguy & Zentella (2012: 19) write that there are two possible results of contact between two dialects of the same language. The first is *dialect leveling*, in which the linguistic trait in question changes in some or all speakers' speech in order to accommodate the differing dialect of the other speakers. Similarly, Penny (2000: 4)

describes *dialect leveling* as the reduction in the range of linguistic variants that are in competition. In this case, one variant of a dialect may be adopted by the speakers of the other dialect, or a new variant not belonging to either dialect may surface and become used by all speakers. The second possibility described by Otheguy & Zentella (2012: 19) is that the speakers increase their use of their distinct linguistic traits in order to differentiate themselves from the other group. In this case, the dialects do not become more similar, but rather maintain, possibly at an elevated level, those traits that make their speech different. It is also important to note that within a contact situation, one trait may undergo leveling, but another may have its distinct variants maintained by the speakers of each dialect group.

Silva-Corvalán (1994) notes that in most cases, the variety that has more prestige imposes its phonology, syntax, lexicon, and semantics on the varieties that are perceived as less prestigious. The prestige variety is often the one of the dominant group, which occupies the higher political and economic spheres, or is simply more numerous in the community (Hernández 2009: 591). While this occurs many times in situations of language contact, it can also apply to dialect contact as well.

A speech community may change its way of speaking (consciously or unconsciously) for a variety of reasons, and the change may only happen in certain situations. As Woods & Rivera-Mills (2012) note in their study of dialect contact in the Pacific Northwest, Salvadorans and Hondurans would use the second person pronoun *vos* with other Central Americans to affirm a Central American identity, but often switched to using *tú* when speaking with Mexican-Americans. The participants reportedly switch to

the less marked *tú* not only for the purpose of linguistic accommodation, but also to create a sense of Latino solidarity (Woods & Rivera-Mills 2012: 210). Raymond (2012: 669) adds to this, writing that “accommodation to the pronominal repertoire to the region’s majority serves as a communicative resource driven by questions of U.S./Los Angeles identity and solidarity.” In some cases, as in Otheguy, Zentella, & Livert (2007), the accommodation may go both ways, as the speakers of Caribbean varieties and those of Mainland Latin American dialects seem to accommodate in both directions.

In the case of Villarreal’s (2014) study, multiple dialects come in contact together to create a koiné⁷, such as Los Angeles Vernacular Spanish, which came to be its own stable variety of Spanish from the mixing and leveling of different kinds of Mexican Spanish. Meanwhile, other communities, such as the Spanish-speaking community of New York City, do not show the same type of linguistic convergence, and therefore remain an aggregate of different Latin American varieties (Flores & Toro 2000: 31). Zentella (1990: 1102) analyzes the sociolinguistic factors that contribute to linguistic attitudes toward varieties other than one’s own, and she notes that the class, education, and race of the speakers of a particular variety play a role in determining that variety’s prestige. If a speech community holds negative attitudes towards the speakers of a particular variety, then the spread of that variety’s traits will be inhibited. Meanwhile, a positive attitude towards the speakers of the variety will promote the adoption of the variety’s linguistic traits in the speech community. These social attitudes contribute to how speakers perceive other linguistic varieties, as well as how speakers perceive their

⁷ A koiné is defined as a new dialect formed through the process of dialect mixing (Penny 2000: 41).

own variety of Spanish. In Chicago, for example, many Puerto Ricans have internalized the idea that they speak poor Spanish in comparison with the Mexicans in the area, particularly when regarding the weakening of syllable-final /-s/ (Escobar & Potowski 2015: 260).

In fact, the treatment of syllable-final /-s/ varies across varieties of Spanish, and its realization, in regard to whether it is maintained, aspirated, or elided, is stable in each Hispano-American dialect (Labov 1996). Generally, syllable-final /-s/ in Latin America has three realizations: aspiration of /s/ to [h], complete deletion of /s/, and maintenance of /s/ as [s]. Several studies detail the geographical distribution of the varied treatment of /-s/, such as Moreno (2004); Aleza Izquierdo & Utrilla (2010); Ma & Herasimchuk (1975); Lipski (1994); and File-Muriel (2007; 2009). Generally, /s/ is aspirated or elided in the Caribbean varieties of Spanish, coastal areas of Central and South America, and the interior area of Argentina. Specifically, elision happens more frequently in the Dominican Republic and in areas of Panama and Argentina, while aspiration is favored in the rest of the Caribbean, along the coasts of South America, and in the Central American countries El Salvador, Honduras, and Nicaragua (Moreno 2004). Finally, syllable-final /-s/ is generally conserved in Guatemala and México (except for the coast) and in the Andean and interior regions of Colombia, Ecuador, Peru, and Bolivia (Moreno 2004; Aleza Izquierdo & Utrilla 2010).

Beyond the geographical distribution, the phoneme has also been reported to vary in different syllable-final contexts. Cedergren's (1973) study of Panamanian Spanish found that aspiration occurs more often before a consonant, whereas elision tends to

occur after a pause. Additionally, Terrell (1979) noted that in Miami Cuban Spanish, /s/ in word-internal position, where the postnuclear /s/ is always followed by a consonant, resulted in aspiration 97% of the time. Lynch (2009: 769) builds on Terrell's findings, noting that in word-final position, the realization of /-s/ in Miami Cuban Spanish was strongly dependent by whether the following segment was a consonant, vowel, or pause. In prevocalic position, aspiration was also generally favored over deletion. Alfaraz (2000) also notes that syllable stress was the only linguistic factor to contribute to word-internal variation of /-s/, and that aspiration was favored in stressed syllables, while speakers tended towards deletion of /-s/ in unstressed syllables. Interestingly, in Lynch's (2009) study of Miami Cuban Spanish, he notes that there were significantly higher rates of /-s/ conservation among young Miami-born speakers, which appears to be a reversal of language change previously seen in this community.

2.0 Methodology

2.1 Recordings

A total of 21 recordings were gathered for analysis of this subject. Ten of these recordings were conducted using a voice recording application on a Samsung Galaxy S7 phone, and the interviews were done in empty classrooms found in either the University of Seville or in vacant rooms found in the Council on International Educational Exchange (CIEE)'s student study center in Seville.

The other 11 recordings were created at Macalester College. One was conducted in a professor's office using a Snowball microphone and Audacity software on a laptop.

The other ten recordings were also conducted with a Snowball microphone and Audacity, but were recorded in the editing suites found in Macalester's Digital Resource Center.

2.2 Elicitation Material

The elicitation material consisted of three sections. The first section was a list of eighteen words, all with <s>, <c>, or <z> in all possible contexts within the word, such as word-initially, word-finally, intervocalically, etc. The second part was a paragraph of a Spanish version of the fable "The North Wind and The Sun." Finally, the final section consisted of answering questions. These questions covered demographic information like age and place of birth, basic conversation topics such as what they study in school, and linguistic-related material, such as how they define their variety of Spanish. A copy of the elicitation material is given in Appendix I.

2.3 Speakers

A total of 21 native Spanish speakers participated in this study. They can be divided into two groups: participants living in Spain (10 participants) and participants currently living in the United States (11 participants). This section will describe these groups in more detail.

The ten participants from Spain (see Table 1) are all native speakers of Spanish and have lived the majority of their lives in Spain. They will be referred to using the group tag "SP" followed by a number, such as SP1, SP2, and so on. Nine of them were born and raised in Andalusia in or around Seville, and the tenth was born and raised in Barcelona

and moved to Andalusia when she was one year old, so all participants grew up in that region. Aside from the participant originally from Barcelona, there is one participant (SP10) who has a father from Madrid. Besides these two, all other participants in this group had both parents from Andalusia. Most participants grew up in or around Seville, while a couple grew up in Córdoba or Cádiz. All of them now attend either the University of Seville or the University Pablo de Olavide and are between the ages of 2 and 24 years old, with an average age of 22.3 years. Seven identify as women and three identify as men. While they have studied other languages, none have the same mastery in those languages as they do in Spanish. Five participants have lived abroad, but only for half a year at a time, typically through study abroad programs. One of these trips was to Argentina, but the rest involved non-Spanish-speaking countries.

Speaker	Gender	Place of Birth	Places lived- years in ()	Age (years)
SP1	F	Seville	Arahal (20)	22
SP2	F	Barcelona	Barcelona (1), Seville (22)	23
SP3	M	Seville	Seville (24)	24
SP4	M	Seville	Seville, Argentina (1/2), London (½)	22
SP5	F	Palma del Río (Córdoba)	Palma del Río (17), Seville (5)	22
SP6	F	Alcalá de Guadaíra	Alcalá de Guadaíra (4), Huelva (1), Seville (16), Iceland (1)	22
SP7	M	Seville	Seville, Tomares, Aljarafe	22
SP8	F	Seville	Seville, United Kingdom (½)	22
SP9	F	Rota (Cádiz)	Rota (18), Seville (4)	22
SP10	F	Seville	Seville, United Kingdom (2 months)	22

Table 1. Demographic information of SP participants.

The other eleven participants (see Table 2) are either native Spanish-speakers or heritage speakers that also speak English fluently. All are current members of the Macalester community and have lived in the U.S. for at least 10 years. These participants will be referred to using the order given in Table 2 and using the group marker US, as in US1, US2, and so on. This study will follow the definitions of *first generation* and *second generation* previously used in sociolinguistic studies (Otheguy & Zentella 2012; Portes & Raumbaut 2001) and studies of language maintenance and change (Veltman 2000) to distinguish between the native and heritage speakers. The *first generation* will refer to speakers who were born in a Spanish-speaking country and later moved to the United States, and the *second generation* will refer to the speakers who were born in the United States and whose parents are part of the first generation. In some cases, children that immigrated to the U.S. before age 6 are considered to be part of the second generation due to the fact that they develop most if not all of their Spanish in the new country, not the home country (Otheguy & Zentella 2012: 3). In the context of my study, three participants (US4, US8, and US11) belong to the first generation, and the rest of the participants belong to the second.

The majority of the participants are all between the ages of 19 and 21 years old except for one, who is 37, and eight identify as female and three as male. Five participants were born in the mainland United States, one in Puerto Rico, and the remaining five were born in Latin American countries, either México or El Salvador. Four of the participants born outside of the United States immigrated here at the age of nine or younger, and the last one moved to the U.S. at the age of 21. All have lived the

rest of their lives in the United States. The participants who were born in the U.S. have parents that came to the U.S. from Latin American countries, so they are the first to be born in the U.S. Between them, their families represent four different Spanish-speaking regions: Puerto Rico, the Dominican Republic, El Salvador, and México. The following paragraphs will describe these speakers in greater detail.

Speaker	Heritage	Gender	Place of Birth	Places lived- years in ()	Age (years)	Linguistic Experience
US1	El Salvador	F	New York	New York (14), Massachusetts (4), Minnesota (3)	21	English: all her life
US2	Mexico	F	Mexico City	Mexico (4), Chicago (17)	21	English: since a very young age
US3	Mexico	F	New York	New York (18), Minnesota (3)	21	English: all her life, since 3-4
US4	El Salvador	F	San Miguel, El Salvador	San Miguel (9), Minnesota (12), Czech Republic (1/2)	21	English: since age 10
US5	Puerto Rico	F	Fajardo, PR	Fajardo (2), Philadelphia (12), Winter Haven, FL (6)	19	English: since age 4 French: since age 8
US6	El Salvador	M	San Salvador, El Salvador	Russellville, AR (15), North Carolina (3)	20	English: since birth
US7	Mexico	M	Sonoma, CA	Sonoma, CA (19)	19	English: since age 6-7
US8	El Salvador	F	Las Pilas, El Salvador	Las Pilas (9), Saint Paul, MN (12)	21	English: since age 9 French: 6 years
US9	Mexico	F	Azusa, CA	Azusa, CA (20)	20	English: since age 5
US10	Dominican Republic	F	Providence, Rhode Island	Rhode Island (19)	19	English: since age 2-3 Portuguese since toddler
US11	Mexico	M	Monclova, Mexico	México (21), New México (1/2), Colorado (3), Texas (1.5), California (4), Minnesota (6)	37	English: since elementary school Portuguese: 14 years French: 12 years Farsi: 6 years Arabic: 1 month Latin

Table 2. Demographic information of US participants.

There are four Salvadoran participants. Two speakers (US1 and US6) are considered second generation, and the other two (US4 and US8) are first generation. US4, US6, and US8 were born in El Salvador, but US6 moved to the United States at the age of two, and started speaking both Spanish and English at the same time. In the U.S.

he has lived in Arkansas and North Carolina. The other two came to the U.S. around the age of nine, and have lived in Minnesota since then. They began to learn English at age nine, when they settled in Minnesota. The fourth participant of this group was born in New York, but her family is originally from El Salvador. She learned Spanish first from her parents, but learned English shortly after.

The Puerto Rican speaker (US5) was born in Puerto Rico and at the age of four moved to Philadelphia, and then to Florida at age thirteen. She learned to speak Spanish first, and then began learning English at the age of four. The participant of Dominican heritage (US10) was born in Rhode Island and has lived there ever since. She learned to speak Spanish first, and then began speaking English at the age of two or three years old. She also speaks Portuguese and has done so since she was a toddler.

The remaining five participants (US2, US3, US7, US9, and US11) are of Mexican heritage. One was born in México City and moved to Chicago at the age of four. She began learning English at a young age. The other three were born in the U.S., two in California and one in New York. The participant from New York has known both English and Spanish her entire life. The two speakers from California, one from Sonoma and the other from Azusa, learned Spanish first and did not learn English until they began school at the age of five or six. The final participant, US11, is from Monclova, México, and moved to the U.S. at age twenty-one. Since then, he has lived in Texas, Colorado, New México, California, and now Minnesota. He is thirty-seven years old and in addition to Spanish, he's known English since elementary school, and also knows Portuguese, French, Latin, Farsi, and Arabic.

As far as the speakers in the present study are concerned, five of the eleven U.S. Speakers identify their Spanish as Mexican, which is generally known for conserving /-s/. One of these speakers, though, says his speech is based on a coastal Mexican variety, which is known for /-s/ weakening. Four other participants identify as Salvadoran, which is a dialect group that typically experiences /-s/ weakening. Two participants identify with the Caribbean dialect group, one as Puerto Rican and the other as Dominican, which are both populations that are known for weakening of /-s/ as well.

3.0 Analysis

The speech of each participant was analyzed by looking at the frequency of each trait. For determining the *seseo/ceceo/distinción* preference of the Andalusian speakers, the conversation was transcribed into Spanish orthography and every instance of <s>, <c>, and <z> was examined and the number of times the participant said [s] or [θ] for each grapheme was counted. The sounds were usually able to be distinguished by ear, but Praat was used to verify via spectrogram which sound the participants said. This was done for both the careful (reading) speech section and the spontaneous speech section. Since speakers did not necessarily have the same number of instances of <s>, <c>, and <z> in each conversation, percentages were calculated to determine how often (out of the total number of cases) a speaker used [s] or [θ] for each grapheme. The speakers were then classified as either being *seseante*, *ceceante*, or having *distinción* based on these frequencies. All of the SP participants maintained use of a single speech mode at least 70% of the time, so that speech mode was the one they were classified as. The speakers'

self-identification in using one of the three modes also corroborated these classifications. All of the U.S. participants were classified as *seseante* because they did not use [θ] at all in their interviews.

Analysis of the syllable-final /-s/ was conducted in a similar fashion for both SP and US participants. First, each type of realization (elision, aspiration, conservation, etc.) was counted and the total number of instances of /-s/ was tallied. Again, because the total number of /-s/ differs between interviews, the frequency of each realization was calculated (for example, number of instances of elision divided by total number of /-s/ cases) to obtain frequencies of each phonetic realization of /-s/. These frequencies are given in the form of percentages in the analysis of each participant.

While this study focuses primarily on the treatment of sibilants in both groups, it is worth noting that the participants in the US group also exhibit many traits that are known to occur in situations of Spanish contact with English and other dialects of Spanish. While syllable-final /-s/ is known to be affected in these situations, one could also expect changes in vowel quality, the pronunciation of <v>, and code-switching, to name a few. These traits are not necessarily related to sibilants, but they are important to consider in order to have a more complete understanding of the speakers' varieties of Spanish and their experiences with linguistic contact situations. Therefore, additional features will be noted in the US participants' speech as they come up in order to provide a more complete profile of their Spanish.

The following analysis is divided into two parts: first, the data from the Spanish participants will be analyzed, and second the speech of the participants living in the U.S. will be examined.

3.1 Analysis of Andalusian Spanish

There were several very different phenomena taking place concerning syllable-final /-s/ across all of the participants from Andalusia. Before analyzing each participant's individual speech, a description of each phenomenon and its notation will be given. To begin, there is the distinction between the alveolar fricative [s] and the interdental fricative [θ], which in Spain is typically used for the graphemes <z> and <c> when <c> precedes the front vowels /i/ and /e/. As previously stated, speakers who use [s] for all of these graphemes are considered *seseante*, those that use [θ] for all are *ceceante*, and those that use [s] for <s> and [θ] for <c> and <z> are considered to distinguish between the two; they maintain *distinción*. If a participant predominantly uses *distinción* but in one instance switches to the other sound, as in using [s] for <c> and <z> or using [θ] for <s>, this will be referred to as *confusion* for the sake of being consistent with previous studies. This term is not meant to suggest the speaker is confused or speaking "incorrectly;" instead I use it to refer to sporadic switching between speech modes, as discussed in Dalbor (1980: 7).

If the /s/ is deleted and there is no audible trace of it, its elision will be noted with [ø]. There are some cases in which the /-s/ does not manifest as [s] or [h], but instead affects the following voiceless stop (described below). Those cases will be counted

separately from the cases of absolute deletion. In some cases, the /s/ is aspirated and is therefore realized as [h]. In some cases where /s/ precedes /t/, there seems to be some level of metathesis taking place, in which the /s/ becomes very short as well. This phenomenon will be noted as [t^s], to mark both the metathesis as well as the reduction of the /s/. In cases where /s/ precedes a voiceless stop (as in /t/, /p/, and /k/) and is elided, it may affect the stop in one of two ways. The stop may experience compensatory lengthening, which will be transcribed as [t^l], [k^k], [p^p], or in some cases experience aspiration as in [t^h], [p^h], and [k^h]. In this case, *aspiration* refers to a small puff of air following the stop, as in the traditional phonetic definition of aspiration. In some cases, it is difficult to distinguish between the strengthening and the aspiration, so going forward, they will simply be counted together and referred to as *strengthening*, with the notation of [t^l], [k^k], and [p^p]. Finally, there are cases in which /s/ is realized as an alveolar fricative, but it is very short in duration. This shortening will be noted as [š].

The SP participants did not show variation between their speech in the reading of the wordlist or the reading of the short passage. Since both are reading tasks and there was no notable variation, they will be analyzed together under the term “careful/reading speech.” Table 3 shows the breakdown of each realization of /-s/ among the 10 SP speakers. Each percentage was calculated out of the total number of cases of syllable-final /-s/ in that interview. Since the actual number of cases of /-s/ differs from interview to interview, percentages were used for easier comparison. Each individual speaker will be discussed in more detail below.

Participant	Speech type	% elision	% aspiration	% metathesis	% stop strengthening	% /s/ shortened	% [s]
SP1	Careful	52.8	13.2	7.5	13.2	-	9.4
	Spontaneous	52.5	17.5	17.5	5	-	7.75
SP2	Careful	5.7	1.9	-	-	3.8	88.5
	Spontaneous	9.1	-	-	-	-	90.9
SP3	Careful	28.8	5.8	3.8	-	9.6	51.9
	Spontaneous	46.3	7.4	3.7	-	-	42.6
SP4	Careful	31.5	7.4	14.8	1.85	1.85	42.6
	Spontaneous	50.0	16.1	20.5	6.25	0.8	6.25
SP5	Careful	21.6	19.6	3.9	19.6	3.9	31.4
	Spontaneous	18.5	12.3	1.54	9.23	6.2	52.3
SP6	Careful	30.2	20.8	17.0	15.1	-	17.0
	Spontaneous	41.2	16	16.0	10.9	3.4	12.6
SP7	Careful	29.6	11.1	9.26	20.4	7.4	22.2
	Spontaneous	25.0	21.9	7.8	3.9	6.25	35.2
SP8	Careful	22.0	8.0	2.0	10.0	4	54.0
	Spontaneous	28.75	28.75	-	15.0	-	22.5
SP9	Careful	25.5	3.9	7.8	5.9	5.9	56.9
	Spontaneous	56.4	7.7	10.3	6.8	6.8	17.9
SP10	Careful	23.5	25.5	19.6	11.8	11.8	19.6
	Spontaneous	18.75	20.3	12.5	21.9	21.9	20.3

Table 3. Percentages⁸ of /-s/ weakening among SP participants' speech.

Participant SP1

Participant SP1 is *ceceante*, and so preferred to use [θ] for all three graphemes <s>, <c>, and <z>, though there were a number of times in which she pronounced <s> as [s]. In the careful speech section of the interview, she maintained her *ceceante* tendency in 45 cases and pronounced [s] 18 times, so while she still clearly favored *ceceo*, she actually used it about 71.4% of the time. In the spontaneous speech portion of the interview, she tended toward *ceceo* more, and so she used [θ] a total of 35 times and [s] 8 times, therefore maintaining *ceceo* about 81.4% of the time. Though her tendency is strongly towards *ceceo*, it is worth noting that this is not an absolute.

⁸ These percentages are rounded, and so may not equal exactly 100%.

With respect to the syllable-final /-s/, SP1 exhibits a variety of realizations. Of all 53 instances of syllable-final /-s/ in the careful speech portion, /s/ was elided 28 times (52.8%), aspirated seven times (13.2%), strengthening a stop to a geminate or aspirating a stop 7 times (13.2%), metathesized four times (7.5%), and left as [s] five times (9.4%). There were also two instances of both metathesis and stop strengthening occurring together, as in [tt^s] (3.77%). In the spontaneous speech section of the interview, there were 40 possible instances of /-s/. They were elided 21 times (52.5%), metathesized with /t/ seven times (17.5%), aspirated 7 times (17.5%), dropped in conjunction with strengthening a stop twice (5%), and realized as an actual [s] (or [θ] because she's *ceceante*) three times (7.5%). There were additionally some cases where the word-final <z> or <d> were dropped, which are worth noting since both would be pronounced by this speaker as dental fricatives, as in either [ð] or [θ].

Participant SP2

SP2 maintained *distinción* between [s] and [θ], but did exhibit one instance of confusion in the word 'demuestras,' which she read as [ðemwéθtras], in the careful speech section. In the spontaneous speech portion, there were two instances of confusion, in which SP2 pronounced 'son' and 'distingo' as [θon] and [diθtíngo]. Other than that, she maintained *distinción* throughout both the careful and spontaneous speech portions, so about 98.7% of the time. In her own opinion, SP2 believes that she switches freely between *seseo* and *distinción*, though it appears that in this interview she only exhibited *distinción*.

In the careful reading sections, SP2 pronounced most cases of /-s/ as [s], which amounted to 46 times out of 52 total instances of /-s/, or 88.5% of the time. She dropped the /-s/ three times (5.7%), aspirated /-s/ once (1.9%), and exhibited a shortened [š] twice (3.8%). In the spontaneous speech section, out of a total of 55 possible cases of /-s/, SP2 dropped five of them (9.1%) and maintained the other 50 as [s] (90.9%). There were no instances of metathesis or strengthening voiceless stops at any point during the interview. In a few cases, especially in the word ‘andaluz,’ the final <z> is dropped, and word-final [ð] seems to be shortened in this participant’s speech.

Participant SP3

SP3 practices *distinción* and in the careful speech portion, did not exhibit any sort of confusion between the two sounds. In the spontaneous speech section, however, there were two cases of confusion, in which he pronounces ‘es’ and ‘asociaciones’ as [eθ] and [aθoθjaθjoneø]. In both cases, SP3 switched to using [θ] instead of [s]. Overall, SP3 maintained *distinción* 98.8% of the time.

For syllable-final /-s/, SP3 exhibited a variety of realizations. In the careful speech portion, he dropped the /-s/ completely 15 times (28.8%), aspirated /s/ three times (5.8%), metathesized it with /t/ twice (3.8%), shortened it to [š] five times (9.6%), and maintained it as [s] 27 times (51.9%). In the spontaneous speech, SP3 maintained syllable-final /s/ 23 times (42.6%), dropped /s/ 25 times (46.3%), aspirated it four times (7.4%), and metathesized it with /t/ twice (3.7%). There were no cases of shortening /s/ to [š] during the spontaneous speech section.

Participant SP4

SP4 also maintained *distinción* in his speech. There were no cases of confusion in the careful speech portion of the interview, but there were three cases of it in the spontaneous speech section. In these examples, SP4 pronounced ‘ese’ as [éθe] and ‘asociaciones’ as [øsjasjónøθ], which show both a switch to [θ] and a switch toward [s]. Other than these three instances, he maintained *distinción* about 97.2% of the time.

SP4’s realization of syllable-final /-s/ was varied in both sections of the interview. In the careful speech section, he dropped the /s/ 17 times (31.5%), aspirated the /s/ 4 times (7.4%), metathesized it with /t/ 8 times (14.8%), dropped /s/ in conjunction with strengthening the following stop once (1.85%), shortened the /s/ to [š] once (1.85%), and maintained the /s/ as [s] 23 times (42.6%). In the spontaneous speech portion, SP4 deleted /-s/ a total of 56 times (50%), aspirated /s/ 18 times (16.1%), shortened /s/ to [š] once (0.8%), metathesized it with /t/ 23 times (20.5%), strengthened a stop to aspiration or gemination 7 times (6.25%), and maintained /s/ as [s] seven times (6.25%). It is also worth noting that SP4 dropped several word-final <z>’s, which, since this speaker practices *distinción*, means that [θ] was dropped multiple times, showing that this is a pattern in this participant’s speech, not just a one-time deletion.

Participant SP5

SP5 is *seseante*, and so tends to use [s] more often than [θ] for the graphemes <s>, <c>, and <z>. That said, there were six cases of [θ] being used in the careful speech

portion of the interview, comprising about 8.1% of the time, while the remaining 91.9% of her speech was *seseante*. In the spontaneous speech section of the interview, she again favored *seseo*, but still used [θ] seven times (5.7%). The cases where SP5 used [θ] to distinguish between the terms ‘*seseo*’ and ‘*ceceo*’ are not being counted because she was deliberately changing her speech in order to demonstrate the difference, and therefore it was not naturally occurring. There were also ten cases (8.2%) in the spontaneous speech section where the sound was not clearly [s] or [θ], but rather something in between. This supports the idea that, because these fricatives are so variable in Andalusia, [s] and [θ] exist on a spectrum and that there is certainly room for intermediate sounds to occur (Dalbor 1980).

SP5 also showed extensive variation in her treatment of syllable-final /-s/. In the careful speech section, there were eleven cases of elision (21.6%), two cases of metathesis (3.9%), ten cases of stop strengthening with deletion of /s/ (19.6%), two cases of shortened /s/ (3.9%), ten cases of aspiration of /s/ (19.6%), and 16 cases of /s/ being maintained fully as [s] (31.4%). One of the cases of [š] appeared in the word ‘*desde*’ and almost seemed like [θ] as a result of assimilation to the surrounding fricatives. That is, in the environment [ðé_ðe], the [š], in addition to being shortened, seemed almost dental and therefore seemed to be assimilating to the place of the following dental fricative. Finally, there were several instances where the final <d>, which would be pronounced as [ð], was dropped. In the spontaneous speech section, there were 34 cases of /s/ being maintained (52.3%), one case of metathesis (1.54%), eight cases of aspiration (12.3%),

12 cases of elision (18.5%), six cases of stop strengthening (9.25%), and four cases of shortened /s/ (6.2%).

Participant SP6

Participant SP6 usually maintained *distinción*, but did show some exceptions. In the careful speech section, she maintained standard *distinción* with one exception, in which she pronounced ‘Barcelona’ as [barselóna]. There were three examples of deviation from *distinción* on the spontaneous speech sections. These examples included both switching to [θ], as in ‘verse’ [βérθe] and ‘explicar’ [ekθplikár], as well as the switch to [s] as in ‘veces’ [béseø]. Other than these four instances, she maintained *distinción* in both the careful speech (98.4% of the time) and in the spontaneous speech section (97.7%).

In regard to the status of syllable-final /-s/, SP6 continues the trends in variation previously seen. In her careful speech, there are 16 cases of elision (30.2%), nine cases of metathesis (17.0%), eight cases of stop strengthening with elision (15.1%), eleven cases of aspirated /s/ (20.8%), and nine cases of /s/ maintained as [s] (17.0%). In the spontaneous speech portions of the interview, there was a noticeably larger amount of /-s/ elision. In total, there were 49 cases of elision (41.2%), 19 cases of aspirated /s/ (16.0%), 19 cases of metathesis (16.0%), 13 cases of stop strengthening with elision (10.9%), four cases of shortened /s/ (3.4%), and finally 15 cases of /s/ being maintained as [s] (12.6%). SP6 also dropped a word-final <z> (as in [θ]) on nine separate occasions, showing that this deletion is another deletion pattern in her speech.

Participant SP7

SP7 exhibited *distinción* and showed no deviation from it in the careful speech portion of the interview. In the spontaneous speech section, there were only two moments of confusion, both towards [s], as in the words ‘traducción’ [traduksjón] and ‘empezar’ [empesár]. Other than these two examples, there were no natural deviations from *distinción*.

SP7 showed the same kind of variation of syllable-final /-s/ as the previously described participants. In the careful speech section of the interview, there were 16 cases of elision (29.6%), six cases of aspirated /s/ (11.1%), five cases of metathesis (9.26%), eleven cases of either geminated or aspirated stops as a result of stop strengthening (20.4%), four cases of shortened /s/ (7.4%), and 12 cases of /s/ being maintained as [s] (22.2%). There was one case where both the /s/ was shortened to [š] and the following /t/ became aspirated, as in ‘contestó’ [kontešt^hó]. There was also an interesting case in which a /k/ was deleted in the word ‘afectivamente’, and the following /t/ was aspirated in conjunction with its deletion, which, while not involving /s/, still shows a pattern that /s/ is being investigated for in the present study. This syllable-final /k/ has been deleted in other contexts as well, as in the word ‘existe,’ which was reduced to [eøsíste]. In the spontaneous speech, there were 45 cases of /-s/ maintenance (35.2%), 32 cases of elision (25.0%), 28 cases of aspiration (21.9%), ten cases of metathesis (7.8%), eight cases of shortened [š] (6.25%), and five cases of stop strengthening (3.9%).

Participant SP8

SP8 also maintains *distinción* and has no cases of confusion of [s] or [θ] in the careful speech section of the interview. In the spontaneous speech section, there are three cases of confusion, all of which are towards the phone [s], as in the words ‘traducción’ [traduksjón], ‘asocia’ [asósja], and ‘diferencia’ [diferénsja]. Other than these three instances, SP8 maintained *distinción* about 98% of the time.

Concerning syllable-final /-s/, SP8 shows several interesting variations. In the careful speech section of the interview, there were eleven cases of elision (22%), four cases of aspirated /s/ (8.0%), one case of metathesis with /t/ (2.0%), five cases of stop strengthening in conjunction with elision (10.0%), two cases of shortened /s/ (4.0%), and 27 cases of /s/ being maintained as [s] (54%). In the spontaneous speech section, there were 23 cases of elision (28.75%), 23 cases of aspirated /s/ (28.75%), 12 cases of a strengthened stop with elision (15%), and 18 cases of /s/ remaining as [s] (22.5%). There were four cases (5%) of /s/ becoming dental as a result of place assimilation to the following fricative, as in ‘desde’ [ðéθðe] or in the phrase ‘antes de’ [ánteθ-ðe]. There were also cases, both in the careful and spontaneous speech sections, where word-final dental fricatives were dropped, as in the words ‘verdad’ [βerdáø], ‘Cádiz’ [káðiø], and ‘andaluz’ [andalúø]. In two cases, a syllable-final [θ] was dropped with the result of strengthening the following stop, as in ‘traduzco’ [traðúk^ko]. Considering the flexibility in this region with [s] and [θ], this is worth noting.

Participant SP9

SP9 also practices *distinción*, but had a total of five cases of confusion: three in the careful speech portion, and twice in the spontaneous speech section. It is worth noting that while SP9 has the strongest tendency towards *distinción*, she herself says that she uses *seseo* a lot, and this is evident in the fact that all five of these slips are toward [s], as in ‘niñez’ [nijés], ‘nací’ [nasí], etc. Overall, between the two sections, she maintained *distinción* about 98% of the time.

Once again, this participant showed variation with syllable-final /-s/. In the careful speech section, there were 13 cases of elision (25.5%), two cases of aspirated /s/ (3.9%), three cases of strengthening a stop in conjunction with elision (5.9%), four cases of metathesis with /t/ (7.8%), and finally 29 cases of /s/ being maintained as [s] (56.9%). In the spontaneous speech section, there were considerably more elisions than anything else. In total, there were 66 elisions (56.4%), only nine cases of aspirated /s/ (7.7%), eight cases of stop strengthening occurring with elision (6.8%), 12 cases of metathesis with /t/ (10.3%), one case of shortened [š] (0.8%), and only 21 cases of /s/ being maintained (17.9%). Like other participants, SP9 dropped final [θ] and [ð] in some cases

Participant SP10

Like many of the other Andalusian speakers, SP10 observes *distinción* between [s] and [θ], and there were no cases of deviation from this at any point in her speech. In similar fashion to other Spanish participants, there is a considerable amount of variation in the syllable-final /-s/. In the careful speech portion, there were 12 cases of elision (23.5%), 13 cases of aspirated /s/ (25.5%), 10 cases of metathesis with /t/ (19.6%),

six cases of stop strengthening with elision (11.8%), and 10 cases of /s/ being maintained as [s] (19.6%). In the spontaneous speech section, there were 12 cases of elision (18.75%), 13 cases of aspirated /s/ (20.3%), eight cases of metathesis (12.5%), 14 cases of stop strengthening with elision (21.9%), and 13 cases of /s/ remaining [s] (20.3%). There were an additional four cases (6.25%) in which /s/ became dental by assimilating to the following dental fricative, as in ‘desde’ [ðéðe] or the phrase ‘es de’ [eθ-ðe]. There were also several cases of word-final dental fricatives being dropped, as in ‘Madrid’ [maðríø] and ‘comunidad’ [komuniðáø].

General Patterns

There are several prominent trends throughout the interviews of these participants. While each participant has a clear tendency for either *seseo*, *ceceo*, or *distinción*, these are not hard and fast modes that the participant follows absolutely. As is consistent with Dalbor’s (1980) findings, *ceceo*, *seseo*, and *distinción* are more of tendencies, and it is very common for a speaker to slip into a mode different from their usual speech style, which is clear both in Dalbor’s research and in the Spanish participants in this study. Several participants even spoke about this in the interviews, saying that they switch and are aware of it. SP2, SP6, and SP8 note that they use *seseo* sometimes, but other times they maintain *distinción*. In other interviews, SP5 and SP9 both consider themselves *seseante*, but still used [θ] in some cases. SP1, the sole identifying *ceceante* in the group, also slipped into using [s] from time to time. Other

participants who distinguished between the two phones also had some moments where they slipped and pronounced one in place of the other.

In regard to syllable-final /-s/, each possible realization seems to occur in specific environments. Aspiration of /-s/ usually occurs before a vowel as in ‘los árboles’ being read [lo-hárβoles] (SP9). There are some cases where this aspiration comes before a different consonant, as in ‘los sonidos’ [loh-sonídoø] (SP5). Metathesis seems to only occur when /s/ is followed by /t/; it does not occur with any other stop or alveolar phone. Stop strengthening, as the term implies, occurs before a voiceless stop, but seems to occur more often with /p/ and /t/ (when /t/ is not experiencing metathesis) than with /k/, though there are cases of all three occurring. Elision seems to occur in pretty much any environment, but usually occurs before a voiced consonant, as in ‘mismo’ [míomo] (SP10) or in plural nouns, as in ‘las paredes’ [laø-paréðeø] (SP3). Maintenance of /-s/, that is, /-s/ being realized as [s], can happen in any environment, but seems to occur more often at the end of a sentence or when the speaker is reading more carefully, like when reading an unfamiliar word. Shortened [š] can appear in any syllable-final environment, but seem to occur either before a fricative, as in ‘nos decimos’ [noš-ðeθímoø] (SP6), or in an environment where a different change normally takes place, as in before a /t/, which is the environment where metathesis normally occurs, as in the example ‘estudio’ [eštúðjo] (SP5).

In addition to the variation shown with *seseo/ceceo/distinción* and the syllable-final /-s/, there are some other patterns happening with word-final fricatives that are worth noting. Across this group of participants, there have been multiple cases in

which word-final <z> and <d> have been dropped. In this dialect, these speakers pronounce the final /d/ as a fricative [ð], and as discussed earlier, the speakers vary between pronouncing <z> as [s] or [θ]. Regardless, all of the participants- those with *ceceo*, *seseo*, and *distinción* have cases where word-final /-d/ is dropped, as in ‘verdad,’ ‘salud,’ and ‘Madrid,’ and where word-final <z> is dropped, as in ‘andaluz,’ ‘Cádiz,’ and ‘arroz.’ In one example by SP8, word-final <z> is actually aspirated in the word ‘arroz’ [aṛóh]. In all cases, the word-final fricative seems to be the target of deletion, whether it be [s], [θ], or [ð]. Considering the fact that the alveolar and dental fricatives are so intermixed in this region because there is such a wide variety of speech tendencies regarding *seseo* and *ceceo*, and considering the fact that intervocalic /-d-/ is often deleted anyway in words like ‘pescado’ [pekáo], it is quite possible that these phenomena are extending to affect not just alveolar sentence-final fricatives like /s/, but dental sentence-final fricatives like [θ] and [ð] as well. While there were differences between the reading sections and the speaking section, there was no noticeable difference between the wordlist and the short text, possibly because these speakers are equally comfortable with both tasks and so they read both sections in the same manner, thus their pronunciation of /-s/ did not change between the two tasks.

3.2 Analysis of Spanish in the United States

The results of the participants’ treatment of syllable-final /-s/ are given in Table 4 and were calculated in the same manner as the results for the SP group. Because the total number of cases of /-s/ varied across the interviews, percentages were used. The analysis

of each participant will then be given individually, starting with participant US1. In addition to the realizations of /s/, other phonetic patterns of interest will also be mentioned in order to provide a fuller, more complete profile of each participant's speech and to determine whether each participant's speech shows signs of contact with English or Spanish dialect leveling. Afterwards, general patterns found across participants' data will be analyzed.

Participant	Speech type	% elision	% aspiration	% metathesis	% stop strengthening	% /s/ shortened	% [s]
US1	Careful	-	-	-	-	-	100.0
	Spontaneous	2.56	-	-	-	10.3	87.2
US2	Careful	-	-	-	-	-	100.0
	Spontaneous	1.59	-	-	-	-	98.41
US3	Careful	-	-	-	-	-	100.0
	Spontaneous	-	-	-	-	-	100.0
US4	Careful	8.0	-	-	-	-	92.0
	Spontaneous	4.0	23.1	-	4.0	-	68.9
US5	Careful	-	-	-	-	-	100.0
	Spontaneous	2.0	11.9	-	3.4	3.4	79.7
US6	Careful	-	-	-	-	-	100.0
	Spontaneous	1.7	1.7	-	-	-	96.55
US7	Careful	-	-	-	-	-	100.0
	Spontaneous	0.94	1.89	-	-	-	97.2
US8	Careful	-	-	-	-	7.6	92.4
	Spontaneous	3.68	0.53	-	-	0.53	95.26
US9	Careful	-	-	-	-	-	100.0
	Spontaneous	-	-	-	-	1.2	98.8
US10	Careful	-	-	-	-	-	100.0
	Spontaneous	11.0	-	-	-	-	89.0
US11	Careful	3.6	-	-	-	-	96.4
	Spontaneous	8.93	-	-	-	1.79	89.3

Table 4. Percentages of /-s/ weakening among U.S. participants' speech.

Participant US1

Like all of the US participants, US1 is clearly *seseante* and does not in any moment pronounce <s>, <c>, or <z> as anything other than an alveolar fricative [s].

There are absolutely no instances of aspiration of syllable-final [s], and only one instance of dropping the [s] and one instance of shortened [s], which occur in the spontaneous speech portion of the interview.

There are several phonetic phenomena that mark her speech as being influenced by English and/or other dialects of Spanish. First of all, there were several instances of relaxed or shortened vowels that involved shifts from /e/ to [ɛ] in words such as [té-men] and [ɛs-tá] and /i/ to [ɪ], such as in [resistírse]. Additionally, there were several instances of vowel weakening during the question section, in which the participant regularly said [pwěs] and [ěstój]. Interestingly, words with the letter <v> were almost always pronounced as [v], and only sometimes was it realized as [β] in the careful reading portion of the interview, but was split more evenly between [v] and [β] during the question/answer portion, showing that the sound represented by <v> seems to be rather variable in her speech. The voiced stops /d/ and /g/ were regularly realized intervocalically as fricatives [ð] and [ɣ] respectively, but /b/ was split evenly between the plosive [b] and the fricative [β] in US1's speech.

Though her family is Salvadoran, US1 describes her speech as “Spanglish” because of her frequent mixing of English and Spanish. During the course of the three-minute conversation, she switched to English a total of 14 times, some of which came in the form of English tags “el Salvador, so mi familia...” and others through code switching, such as “trabajando en un Honors Project.”

Participant US2

Participant US2 also is *seseante* and pronounced every syllable- or word-final /s/ as [s], except for one moment in the question portion, in which she said “es” as [eø]. In many cases, the vowel preceding the /s/ was reduced but the /s/ was maintained, as in [pw^es].

During the careful reading portions, US2 pronounced all cases of <v> as [v], but in the question portion vacillated between [v] and [β]. Additionally, while there were some cases of intervocalic /b/, /d/, and /g/ being realized as their fricative counterparts [β], [ð], and [ɣ], the majority of realizations were more along the lines of [b̥], [d̥], and [g̥], in which the consonant was significantly shortened in length, but still maintained a stop and not a fricative. In addition to the cases of shortened vowels before /s/, there were also cases of more relaxed, centralized vowels, as in /e/ becoming [ɛ] in words such as [swélo] and [barselóna]. Interestingly, there were two moments in which US2 pronounced an alveolar lateral approximant [l] in place of a central [r]: ‘crear’ [kreál] and ‘pared’ [paléd]. This particular feature is interesting because while this participant is from México and grew up with Mexican Spanish in the home, she grew up in a Puerto Rican neighborhood, and Puerto Rican Spanish varieties are known for this kind of neutralization of /l/ and /r/. Additionally, US2 code switched or used English tag words several times during the interview, such as “de mi high school” and “so like, cuatro, cinco años.” There were also several examples of Spanish words that had been anglicized in their pronunciation. Words like ‘estadísticas’ and ‘específicamente’ were pronounced as [statístikas] and [spesífikamente], in which the initial vowel was deleted, mirroring the English counterparts ‘statistics’ and ‘specifically.’ In addition, US2 used the word

‘accento’ [aksénto], which is an anglicized version of [asénto]. There seems to be a case of semantic extension with the word ‘colegio,’ typically used to mean ‘high school,’ in which this speaker used the word to refer to Macalester College. Since ‘college’ and ‘colegio’ appear to be cognates, it is likely that the Spanish word’s meaning has been extended to include that of its English counterpart.

When asked to describe her own speech, US2 stated that she believed it was Mexican Spanish because she and her family are from México, but conceded that she grew up in a Puerto Rican neighborhood and spent most of her childhood in the US, so, in her own words, “no es mexicano, el acento es más como americano porque he crecido aquí,” (‘it is not Mexican, [my] accent is more American because I grew up here,’).

Participant US3

Participant US3 is also *seseante* and had no instances aspiration or elision of syllable-final [s] of any kind. She consistently pronounced <v> as [v] both in the careful and spontaneous speech portions of the interview. The stop /d/ was realized pretty evenly as both a very short [ḏ] or [ð], and /b/ is frequently realized as [ḃ]. Interestingly, /g/ is more frequently realized as [ɣ] rather than a shortened stop like the other plosives. There are additionally several examples of vowel reduction, especially before /s/, as in the cases of [pwěs], [bwěno], and [tãmbjén], and some cases of vowel relaxing, as in [swélo] and [okúren].

In her opinion, she speaks a Mexican variety of Spanish, which is marked by intonation. Many of the traits of her speech seem to support her identification, since

reduced vowels and strong conservation of /s/ in all environments are strong patterns in her speech, and while it is beyond the scope of this study, she does seem to speak with the “tones” or noticeable intonation often associated with Mexican Spanish.

Participant US4

Participant US4 is *seseante*, but showed some variation in her pronunciation of syllable final /s/. In the careful reading portion of the interview, there were four very clear cases of aspiration of /s/, as in [lah-paréðes], [suh-paláβrah], and [me-áyah-r̄eír]. In the free conversation portion, the realization of /s/ differed even more. In the conversation, there were twelve cases of aspiration of syllable-final [s] (about 23.1% of the time), two cases of elision of /-s/ (4.0%), and two cases of both /s/ dropping paired with strengthening of the following stop (4.0%). Examples of these phenomena are [relasjónē-hinternasjónáles], [la-k^klásēs], and [kwál-eø-mi], respectively. In one case, both aspiration and strengthening of the following stop occurred, as in [mih-k^klásēs].

Beyond the different realizations of /s/, there are several other phonetic phenomena in US4’s speech that are worth noting. Like other speakers, she pronounces <v> as [v] in every case, and in one case even pronounced a as [v] in the word ‘prueba’ [pruéva] in the reading section. She pronounced /b/ as either [b] or [b̥] regularly in both the reading and the conversation, always as a stop and not a fricative intervocalically. While /g/ was consistently realized as [ɣ], the pronunciation of /d/ switched between [d̥] and [ð].

In her opinion, US4 speaks a mixture of Mexican, Salvadoran, and Spanglish. She reports that she uses Mexican slang but her pronunciation is more in line with that of a Salvadoran. While she says that Spanglish is also a part of her speech, she did not use any English at all in the interview except to say the words ‘slang’ and ‘Spanglish.’

Participant US5

US5 is again *seseante* and demonstrates an interesting divergence in syllable-final /s/ between the careful speech and the conversation portion. During the readings of the careful speech section, all cases of /s/ were realized as [s], but in the conversation, there were seven cases of aspiration (11.9% of the time) as in [loh-kwátro], one case of elision (2.0%) as in [franséø], two cases of strengthening (3.4%) the following stop ([et'ój]), and two cases of shortened [s] (3.4%), as in [ěštój]. There was one case in which both aspiration and stop strengthening occurred in tandem: [eh-k^kláro].

In addition to the variation with /s/, there are other trends worth noting. The letter <v> was realized as [v] in all cases, both in the reading and the conversation, except for one instance, in which US5 pronounced it as [b] in the word [bjénto]. All of the voiced stops /b/, /d/, and /g/ were realized as stops and not fricatives regularly throughout both the careful speech and conversational speech sections of the interview. In the conversational speech, word-final [n] was sometimes velarized, especially when the following sound was [k]. The graphemes <y> and <ll> were pronounced as a palatal stop [j] as in [jo] and [éjo]. In one instance, the vowel /e/ was relaxed to [ɛ] as in [swélo].

US5 states that she speaks with a Boricuan accent since she is from Puerto Rico and says that her friends have told her she has this accent as well. While she did not speak in English at any point during the interview, she did switch between saying ‘accento’ and ‘acento’ and there was one instance in which she said ‘del salud,’ which differs from the standard grammatical gender of the word ‘salud.’

Participant US6

US6 is *seseante* and pronounces all instances of /s/ as [s] in the careful speech sections of the interview. During the conversation, there was one case of aspiration and once case of elision, given in the following example: [únah-diferénsjaø].

Beyond /s/, US6 pronounces <v> as [v] in all cases and maintains the /b/ and /g/ as stops in all intervocalic instances. For the most part, /d/ is realized as a stop intervocalically, but in some moments US6 pronounces it as the fricative [ð]. In both the careful speech and the conversation, there are multiple examples of vowel relaxation. In the careful speech, /e/ is relaxed to [ɛ] in the words [véses] and [swélo], and in the conversation, /i/ relaxes to [ɪ] as in [spesífikamente]. As this last example shows, there are also instances where the initial vowel of a word is deleted (in the cases of ‘específicamente’ and ‘específicas’), which is likely due to transference from their English counterparts ‘specifically’ and ‘specific.’ Additionally, US6 uses the word ‘accento’ instead of ‘acento,’ and pronounces the word ‘vocabulario’ with an English-sounding [u], as in [vokabjulárjo]. In another instance, he uses the word ‘minoridades’ to mean ‘minoritarias.’ It is also worth noting that he pronounces the name

for North Carolina in a mixture of Spanish and English pronunciation, as in [nórte-keĩrolína]. US6 describes his own speech as Salvadoran because he and his family are from El Salvador, and because he uses words that are specific to the Salvadoran dialects.

Participant US7

US7 is *seseante* and pronounces all cases of /s/ in the careful reading as [s]. In the conversation portion, there was one case of shortened [š] [ablámoš] and one case of elision [entónseø]. Other than these two instances, all cases of /-s/ are realized as [s]. Besides /-s/, the letter <v> is consistently realized as [v] and /g/ as [g]. The sound /b/ tends to be pronounced as [b̃] except for one case, where it actually seems vocalized to the point of becoming part of the vowels surrounding it [estó-a]. The stop /d/ is realized both as [d̃] and [ð]. Additionally, there are cases of both vowel relaxation and weakening, as in [véses], [ε-vivído], [respwésta], and [swélo] for relaxation, and for vowel reduction [ěstán] and [ěntónsěs].

There were a few instances where US7 used English to either name classes he is taking or as code switches as in “oh wait, tengo más...” There were also a couple of grammatical things worth noting, such as the use of *estar* to talk about age, as in “estuvieron dieciocho años” and also an instance of disagreement in the phrase “variedad mexicano.”

US7 says that his Spanish is mostly influenced by that of his mother, who is from the coast of México. As US7 notes, this dialect is noted for dropping final /s/ and

intervocalic /d/, as in the example that US7 provides, [pekáo] instead of ‘pescado.’ While US7 seems to be very conscious of dialectal differences in Spanish and his own speech, it is interesting to note that while he talks about /s/-dropping, he himself does not present this feature in his own speech.

Participant US8

US8 is *seseante* and exhibits some variety in her pronunciation of /s/ both in the careful reading and the free conversation portions of the interview. In the careful reading, there were four cases of a shortened [š], as in [léxoš] and [araŋkádoš], but all other cases of /-s/ were realized as [s]. In the free conversation, there was one case (0.53%) of a shortened [š], as in [lo-šestádos] ‘los Estados,’ 7 cases of dropping the /s/ entirely (3.68% of the time), as in [ɔtónseø] and [ménø], and finally one case in which ‘los Estados’ was condensed to [hostádos] in which the /s/ of ‘los’ became aspirated (0.53%). Interestingly, this condensing resulted in the /o/ of ‘los’ replacing the /e/ of ‘estados.’

With regard to the stops /b/, /d/, and /g/, US8 regularly pronounced them with their fricative counterparts [β], [ð], and [ɣ] intervocalically, though [ð] was often very short and seemed more like [ð̥]. Word-final /n/ was sometimes velarized to [ŋ] in both the careful reading and the free conversation, as in [destruksjóŋ] and [koŋ]. In some cases, the grapheme <ll> was read as the affricate [dʒ], as in [dʒéno] and [dʒeβándose] in the careful reading. She used English only a few times when referencing English terms such as “middle school” and “seminar,” or when referencing class titles. There was one

instance in which she used the phrase “well, no” when she changed her mind about something in the conversation.

US8 says that it is difficult to categorize because she still uses the voseo and Salvadoran words that are typical of Salvadoran speech, but she says she lost her Salvadoran accent. She believes that her speech has been influenced considerably by Mexican Spanish because her grandmother is Mexican and because Mexican varieties are the most widely spoken in the United States: in her words, Mexican Spanish “es el dialecto más popular.” In her experience, other Spanish speakers are not able to tell she is from El Salvador simply by hearing her speech because she no longer has a recognizable Salvadoran accent.

Participant US9

US9 is once again *seseante* and pronounced every case of /s/ in both the careful reading and the free speech portions as [s], with one exception of a shortened [š] in the conversation. The stops /b/ and /d/ were variable and were realized either as their fricative counterparts /β/ and /ð/ or as weakened [b̥] and [d̥] in the careful reading, while /g/ was consistently the fricative [ɣ]. The letter <v> was realized as [β] once in the wordlist for the word ‘veces’ and once as [b] in the conversation when ‘veinte’ started a sentence, but otherwise was consistently pronounced in the reading and the conversation as [v]. In the conversation, there was a fair amount of vowel reduction before /s/, and occurred in words such as [ěštój], [ěstudjándo], [pwěs], and [entónsěs].

US9 pronounced American city names and class titles in English. She code switched once to explain the alveolar trill: “la doble erre, entonces like you roll the <r>.” Additionally, she used the term ‘accento’ instead of ‘acento’ when describing her Spanish, which may indicate transference from the English word ‘accent.’

US9 describes her speech as Mexican Spanish, characterized by a strong [s] and rolled <r>’s, as well as a melodic intonation that makes it sound as if the speaker is “singing” when speaking. She also commented that her speech changes depending on who she is speaking with, and will change for example when she visits her father’s family in Mexico.

Participant US10

US10 is *seseante* and differed in her pronunciation of /s/ between the careful and free speech sections of the interview. In the careful reading, she maintained every /s/, but during the conversation, she dropped the /s/ eight times (11% of the time) in words such as [veø], [deøpwéø], and [portugéø].

Aside from the /s/, /v/ was consistently pronounced as [v] and the stops /b/, /d/, and /g/ were mostly realized as stops, with a few instances of the fricative counterparts. In both the conversation and the reading portions, there were a few instances where <y> and <ll> were realized as affricates, such as [dʒo] and [dʒéno]. The alveolar trill /r/ was frequently devoiced and sometimes reduced to a tap, as in [aṙaŋkládo], [ahrós], and [ahráso]. Word-final /n/ was frequently velarized, as in [soŋ], [tambjén], and [áblaŋ].

Finally, US10 used a fair amount of English, both in the forms of code switching and tag words such as ‘yeah’ and ‘so.’ When describing her classes, US10 named each class with its given English title and used some English terms such as ‘graph’ and ‘cell’ to describe what she was doing in them. During this description she apologized because she couldn’t think of the Spanish word and so was forced to substitute the English words. Given that the terms are more specialized and not everyday terms, this may just show that US10 did not receive her formal education in Spanish and thus may not be as familiar with specialized terminology in Spanish as she is in English. She also inserted the word ‘toddler’ in English, (which has no direct equivalent in Spanish) and pronounced American cities and states in English.

While her family is Dominican and the Spanish speakers in her home community are mostly Dominican, US10 believes that her Spanish has been influenced by formal Spanish classes she has taken in school. According to her, she grew up speaking Dominican Spanish but learned Castilian Spanish in school, which makes her question whether or not she has a Dominican or Caribbean dialect.

Participant US11

US11 is *seseante* and in the careful speech section, there were only two cases of deleting syllable-final /-s/, all other cases in that section were pronounced as [s]. In the spontaneous speech section, there are 10 instances (8.93%) of syllable-final /-s/ deletion and two instances of shortening /s/ to [š] (1.79%). Both of these variations occurred a

very small portion of the time, meaning most of the syllable-final cases of /-s/ were maintained as [s].

Interestingly, in the careful speech portion of the interview, there were four cases where <v> was read as [v], which is interesting considering that in the spontaneous speech section had no cases of this. It is possible that reading and actually seeing the grapheme <v> might have influenced the pronunciation of this letter, because in the spontaneous speech, where there was nothing to read and therefore no visual to give any cues, all cases of <v> were realized as [b] or [β]. Additionally, the intervocalic fricatives [β] and [ð] were often very short and in some cases seemed almost deleted or vocalized. Though it is beyond the scope of this study, it is worth noting that it seemed like US11 had a distinct intonational pattern to his speech, though a separate investigation of that intonation would have to confirm that. The presence of this intonation does match US11's description of Mexican Spanish, though, which is the variety that he believes he speaks.

General Patterns

While none of these speakers share the exact same variety of Spanish, there are clear patterns found across the interviews. Many of the participants pronounce the <v> as [v] and the stops /b/, /d/ and /g/ as plosives intervocalically, which is likely a result of transference from English. Additionally, while some speakers with more of a dialectal base in /s/-dropping dialects do exhibit some variation in their pronunciation of [s], all of the speakers maintain /s/ a significant amount of the time. There were a number of cases of vowel relaxation across speakers, which may also be due to influence from the more

centralized vowel inventory of English. In addition to possible phonetic influence from English, the use of code-switching and English tag words was definitely noticeable, though to varying degrees, across all of these participants. While these features do not necessarily relate to sibilants, they do confirm that these Spanish speakers show the effects of language and/or dialect contact in their speech, thus illustrating the special position of Spanish in the United States.

That said, there were clear dialectal features that came through in several participants' speech. The Caribbean speakers both showed some variation in /s/, pronunciation of /j/ as an affricate [dʒ], velarization of [n], and devoicing of the both the alveolar tap and trill (<r> and <rr>). Several Mexican speakers exhibited a weakened vowel before /s/, which is another feature particular to some dialects of central México.

3.3 Comparative Analysis of syllable-final /-s/

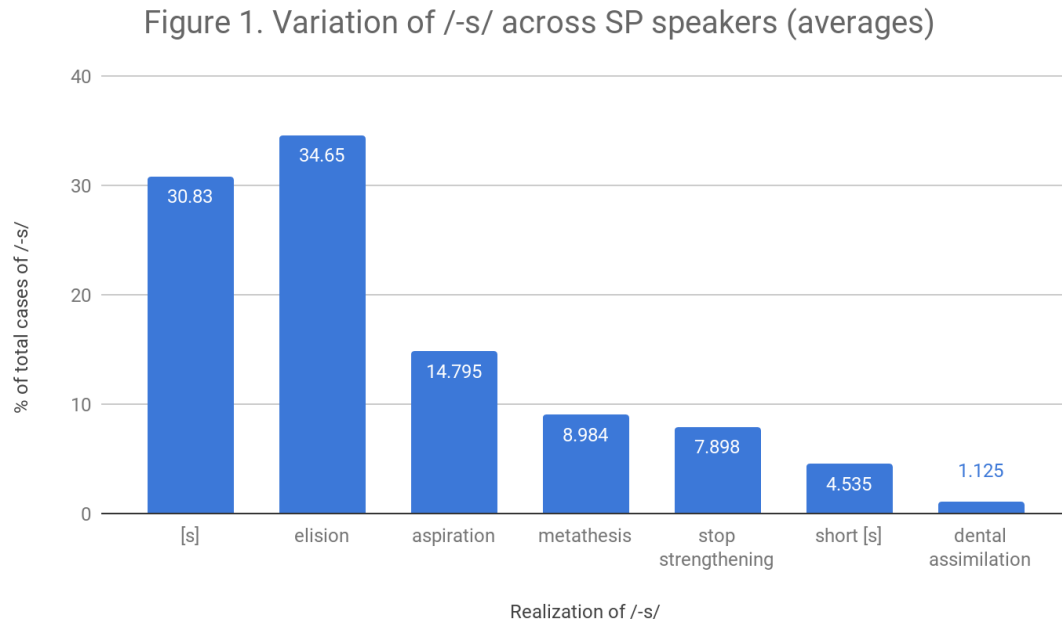
Speakers of both the SP and US groups showed some difference in their treatment of /-s/ between the reading (word list and short text) and spontaneous (conversation) speech portion. The variation and frequency of /-s/ weakening for SP participants are given in Table 3, while the information for the US participants is given in Table 4. Many speakers in both the SP and US groups maintained the /-s/ as [s] much more in the careful speech portion than in the spontaneous one. In order to analyze the natural speech of the speakers among both dialect groups, only the spontaneous speech portions will be used.

Overall, the SP speakers showed much greater variety in their realization of syllable-final /-s/ and more frequent weakening than the US speakers. Every SP speaker

had at least some instances of /-s/ weakening, while only five of the 11 U.S. participants had weakening occurring more than once or twice. While US1, US2, US6, US7, and US9 each had one or two instances of /-s/ weakening in their speech, it is not substantial enough to consider it a stable pattern in their speech. Of the remaining five participants who do have considerable and more regular /-s/ weakening, US4 had the greatest amount of weakening at 31.1% of all /-s/ cases. After her, US5 had a frequency of 17.3%, US10 had 11% of all /-s/ cases, and US8 had 4.74%.

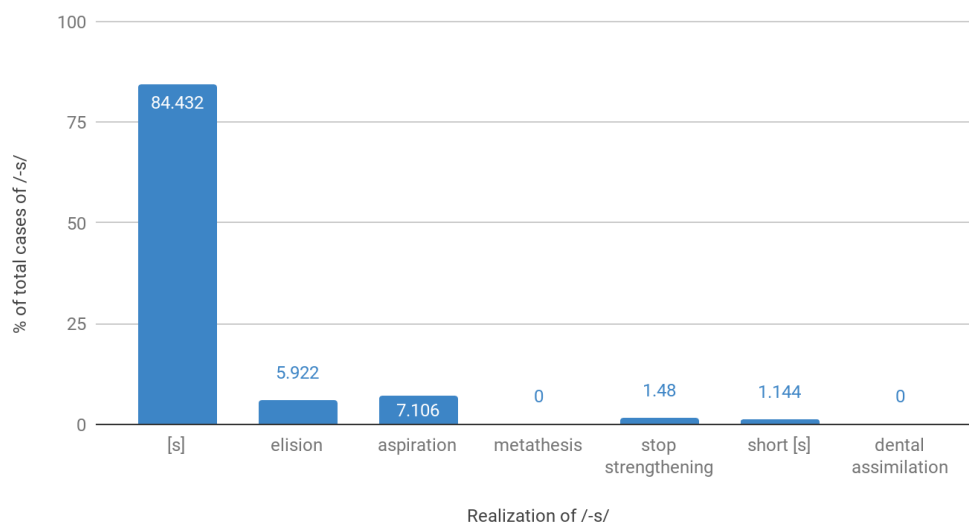
Among the Spanish speakers, SP4 had the greatest amount of /-s/ weakening at 93.75%. SP2 had the least amount of /s/ weakening at 9.1%, but proved to be somewhat of an outlier, as the majority of the SP speakers showed some form of weakening of around 50-90% of all instances of /-s/. With the exception of SP2, all of the SP participants showed substantially more weakening of /-s/ than all of the US participants, many times doing so at almost twice the rate of US4. A t-test was conducted on R Studio to compare the frequency of /-s/ weakening among the 10 SP participants and the 11 US participants, which resulted in a p-value of less than 0.0001, which is considered significant ($p < 0.05$). A second t-test was conducted to compare the SP participants with only the five US participants who showed more substantial /-s/ weakening. The result of the second t-test is $p=0.0003$ ($p < 0.05$). Therefore, the SP participants weaken /-s/ at a rate that is statistically significantly greater than the US participants as a whole, as well as specifically the US speakers who also weakened /-s/.

The first histogram (Figure 1) shows the average use of each realization of /-s/ across the ten participants of the SP group. Since there was not much difference between these speakers, their data was averaged and presented together.



The second histogram (Figure 2) shows the averages of the five US participants that did show some kind of notable /-s/ weakening. These results show a striking difference in the amount of /-s/ conservation between the two groups, and show more visually how the difference between the two groups was statistically significant.

Figure 2. Variation of /-s/ among five US Speakers (average)



As these averages show, the US participants who did show some kind of weakening did not do it often, and actually maintained syllable-final /-s/ as [s] almost 85% of the time. Meanwhile, the Andalusian speakers maintained /-s/ as [s] less than a third of the time. While both groups did use elision and aspiration most of the time when weakening /-s/, the US group showed much less use of the other methods of weakening, and in only two of the five US participants showed and stop strengthening at all.

4.0 Discussion

Because there are so many phonetic elements involved in the analysis of the Spanish varieties spoken in Andalusia and the United States, the discussion section will be divided into three parts: first, this paper will discuss the current status of *seseo/ceceo/distinción* in Andalusia; second, it will address the effects of contact with English and other varieties of Spanish found in the U.S. participants' speech; and finally,

it will examine how the sibilants of the Andalusian speech samples compare to those of the Spanish spoken in the United States.

4.1 Andalusian *seseo/ceceo/distinción*

While the interviews from Andalusia did show that all three speech modes- *seseo*, *ceceo*, and *distinción*- still exist, only one person had a clear tendency towards *ceceo* (SP1) and only one person had a clear tendency towards *seseo* (SP5). All of the others clearly demonstrated the Castilian *distinción* as their primary speech mode. Though it was common for these eight participants to deviate from *distinción* and pronounce some words in a *seseante* or *ceceante* manner (e.g., pronouncing ‘Barcelona’ as [barselona] or ‘es’ as [eθ]), the vast majority of their speech clearly favored *distinción*. Of the eight participants who used *distinción*, only one, SP10, maintained *distinción* the whole time and did not pronounce /s/ as [θ] or vice versa. It is worth noting that her father is from Madrid and so he practices *distinción*; it is possible that this linguistic presence led SP10 to maintain a more consistent *distinción* than some of her peers. Among the participants who did deviate, it seems that they were more likely to tend toward *seseo* rather than *ceceo*. It is also worth noting that the *ceceante* and the *seseante* both showed deviation from their respective speech modes as well, in which the *ceceante* did indeed use [s] occasionally and the *seseante* used [θ], demonstrating that all speakers, regardless of their usual speech mode, showed deviation. The researcher who conducted these interviews was *seseante*, but it is unclear if this had any effect on the participants’ choice of speech mode.

These results do corroborate the existence of trends previously reported in studies by Dalbor (1980) and González-Bueno (1993), affirming that all three speech modes still exist in Andalusia and that there is switching back and forth between speech modes. However, at least among the university student population sampled in this study, the preference towards *distinción* seems to be a lot more prevalent now than it may have been in the past. When asked about what perceptions the participants hold or have heard about *seseo* versus *ceceo*, all of them knew that, while both speech modes are linguistically valid, *ceceo* is strongly associated with small town or rural identity, less education, and generally being more ignorant or rough ('más bruto'). *Seseo*, on the other hand, is associated with urban environments like Seville, higher education, and more refined speech. It is worth noting that some participants pointed out that different cities were known for specific speech modes, for example Seville and Córdoba are known for *seseo* while Cádiz, Granada, and Huelva are known for *ceceo*. Many participants also commented that the speech mode really depends on the person, and that speakers of all types of speech modes can be found in Seville, not just *seseantes*.

Unfortunately, no commentary comparing the social perceptions of *seseo/ceceo* versus *distinción* was gathered, which would have been telling considering that *distinción* has such a strong presence in the Seville speech community. Some speakers did comment on the role that speech modes play in the workforce, which could inform the apparent preference for *distinción*. SP7, who studies translation and interpretation, commented that in his line of work, *ceceo* is problematic because, while it can be understood in Andalusia, it would be difficult for clients from other parts of Spain or from Latin

America to understand, and so it would be detrimental to his work. Based on this insight, it would make sense that *seseo* would be preferable because aside from Andalusia, Latin America also uses *seseo*. However, it is unclear if *distinción* would be more or less preferable to *seseo* in this line of work, and while this participant holds this perception, it may not necessarily be shared by other speakers. Based on where each speech mode is used, it seems *distinción* would likely be more accepted in Spain, but *seseo* would be favorable for work in Latin America. Other participants with *distinción* studied law, psychology, English, and Spanish Philology, and the *seseante* and *ceceante* both study English as well.

The strong preference for *distinción* directly contradicts the study by González-Bueno (1993), who reported that, at least at the time of her study, there wasn't a strong tendency in Andalusia, in Seville or anywhere else, toward the Castilian *distinción*. It is difficult to draw any conclusions from such a small sample size, but at least within the participant population of this study, it seems that the trends found here do not corroborate the findings of González-Bueno, and that there is now a notable tendency to use *distinción* among the university students. This trend towards *distinción* instead seems to support the findings of Marrero (2016: 278), who found that older generations in Seville seem to prefer the locally prestigious *seseo*, younger generations seemed to tend towards the Castilian *distinción*. This finding would support both González-Bueno's report that *distinción* previously had no strong tendency, but how now in the present study, it seems to be the most frequently used speech mode among the participants. As a result, while all three speech modes are still practiced, more university students tend

towards *distinción*, though nearly all of them switch between *distinción*, *seseo* and *ceceo*, and it seems that the locally prestigious *seseo* is still sociolinguistically favored over *ceceo*, shown both through the commentary given by the students, as well as the fact that when speakers did deviate from *distinción*, they usually used *seseo*.

4.2 U.S. Language and Dialect Contact

The U.S. participants showed substantial evidence in their speech to demonstrate likely transference from English and some dialect leveling; all of these traits have been previously documented as occurring in contact situations in the U.S. in previous studies. To begin, all of the participants (US1 through US10) exhibited some amount of lexical or phonetic transference from English, though the amount varied extensively. The most obvious feature was the use of code-switching, in which the participant switched from speaking Spanish to speaking English. Participants US1, US2, and US10 code-switched the most out of all the speakers, but their use of code-switching was not always similar. Whenever US1 used an English noun, it was always used in conjunction with its Spanish counterpart, showing that clearly she can use both English and Spanish, but perhaps the English word came to her mind first. Examples of these conjunctions include “one years old, un año” and “Community and Global Health, que es la salud pública.” US10 used English to say technical terms like ‘equation’ and ‘graphs.’ At one point she apologized because she was using English, which shows that perhaps she wanted to continue on in Spanish, but could not think of the Spanish word in the moment. The use of these English terms reflect that while Spanish may be the language she learned first, her education was

in English, which would make the English words *graph* and *equation* much more commonplace than their Spanish counterparts, which are likely not used around the home. It is important to note, however, that the speakers may have used more code-switching or general use of English because they knew the interviewer also knew English. The fact that the interviewer is bilingual may have affected the amount of English that the participants used.

Other participants used occasional English words and loanwords, which, while different from code-switching between phrases, still show English influence in lexical items. US3 used the loanwords ‘capstone’ and ‘seminar’ in the phrase “un seminar de sociología que es para un proyecto, se llama mi capstone,” instead of the Spanish equivalent *seminario*. US4 only used two actual English words, ‘slang’ and ‘spanglish.’ US7 named one of his classes in English, but other than that only used English tags, such as ‘yeah’ and ‘oh wait,’ rather than full phrases. US8 named her classes in English, and did employ some English phrases such as ‘middle school’ and ‘seminar,’ and at one point, when changing her mind also changed her language, as in ‘es mi clase favori- well no, tengo dos clases favoritas.” US9 gave place and class names in English, and once switched to English in order to explain what she meant by ‘el doble erre,’ though this might have been a deliberate switch to make sure the researcher understood her. US10 also used place and class names in English and US10 also used a number of tags, such as ‘like,’ ‘so,’ and ‘yeah.’ US2 and US6 also demonstrated the use of two loanshifts. US2 used *colegio*, which traditionally means ‘high school’ to also mean ‘college,’ while US6 used *minoridad* instead of *minoritario* or *minoría* to describe minority communities.

In some cases, the speakers modified a Spanish word to be more like its English cognate, which shows phonetic transference from one language to another. US4 and US5 both used ‘demonstrar’ instead of *demostrar*, indicating some influence from the English word ‘demonstrate.’ US5, US6, and US9 all used the anglicized word ‘accento’ in place of *acento*, from the English word ‘accent.’ US2 and US6 also used other words showing influence from their English counterparts, such as using the anglicized pronunciation of words such as *específicamente* and *estadísticas* without their initial /e/, and ‘vocabulario’ with an English diphthong. These and the above examples all show clear influence over certain Spanish lexical items, either changing their pronunciation or their meaning to be more in line with their English counterparts. This, in addition to the overt use of English, provides additional documentation of English influence in Spanish in the U.S.

Further evidence from the participants’ interviews show phonetic change in the form of vowel centralization and the pronunciation of <v> as [v]. Participants US1 through US10 all had at least one instance of vowel centralizing, in which /e/ and /i/ where occasionally relaxed to [ɛ] and [ɪ], respectively. These vowels are not typically part of the Spanish vowel inventory (though they do occur in some monolingual regions), but they do occur in English; furthermore, this type of phonetic change has been documented previously by Escobar and Potowski (2015) as a common phenomenon in the speech of bilingual Spanish speakers in the United States. Additionally, all of the US participants used the phone [v] in some capacity during the interviews, instead of the traditional Spanish [β]. Participants US3, US4, US5, US6, US7, US9 and US 10 all used [v] exclusively or almost exclusively (using [β] only one or two times). Other participants,

such as US1 and US2 showed a clear preference for [v] when reading, using it in nearly every case, but used a rather even mix of [v] and [β] when speaking. This mixture shows that these speakers do have the more traditional Spanish [β] in their speech, but it has some competition with the English [v]. Interestingly, US11 mainly used [v] when reading, but only used [β] when speaking. Finally, US8 and US11 both employed [β] almost exclusively in both reading and spontaneous speech, though both used [v] at least once.

The fricative /v/ is not typically part of the Spanish consonant inventory but is part of the English inventory, and its strong presence in the speech of so many speakers shows that it is a regular and stable presence in their speech. It seems that [v] is more likely to surface when reading, possibly being primed by the letter <v> appearing in the words. Since all of these participants are used to reading in English (in some cases, more so than reading in Spanish), it is possible that the participants simply carried over the English pronunciation of the letter. The wide variation of pronunciation of <v> in spontaneous speech suggests that while [v] is certainly consistent in and stable in the speech of some participants, it is not universal. Escobar and Potowski (2015) note that the use of [v] has also been previously reported in Spanish in the U.S. as a potential result of contact with English, but it is not consistent throughout the U.S. Spanish-speaking population. Interestingly, while both US4 and US8 came to the United States at the same age and were exposed to English much later in life than the other participants, they show opposite patterns. Both live either in the same region of the United States and are both Salvadoran, but US4 used [v] almost exclusively, while US8 used [β] almost exclusively.

It is worth noting, however, that US4 seemed to complete the reading section with a certain amount of difficulty, suggesting that while she speaks Spanish frequently, she doesn't read it very often, while US8 was able to read without issue. This would perhaps suggest that US4 uses [v] in the reading section as a borrowing from English, but it still would not explain why she continued to use it in her spontaneous speech, since other participants have clearly shown that a pattern of using [v] while reading and [β] in spontaneous conversation is possible.

While there are still questions surrounding what determines the degree to which [v] is used versus [β] in Spanish in the United States, it can at least be concluded that [v] does have a strong and consistent presence in the speech of many participants. Though it varies from person to person and between different speech scenarios (careful versus spontaneous), [v] is present and is another example of how English phonetics may be transferred to Spanish in bilingual speakers.

The last example of English transference appears in the treatment of intervocalic voiced stop consonants, as in /b/, /d/, and /g/. It is important to note that in some Salvadoran dialects of Spanish, intervocalic voiced stops actually stay as stops and do not become fricatives (Hernández 2009). Because of that, it will be difficult to draw any conclusions regarding the Salvadoran participants' treatments of stops because it is unclear if they use stops or fricatives intervocalically in their home dialect or not.

The Mexican speakers showed substantial variation in their treatment of intervocalic stops. Interestingly, instead of weakening the intervocalic stops to become fricatives, many speakers instead pronounced them as very short stops, which still

maintained their complete constriction intervocalically, but shortened their duration. This pattern of using shortened stops appeared in the speech of US2, US3, US7, and US9, though both US2 and US7 did pronounce the intervocalic stops as fricatives in a few cases. US11 also pronounced /b/, /d/, and /g/ as fricatives, but they were incredibly short or in some cases seemed either deleted or vocalized, which shows even more lenition than typical Mexican Spanish. Additionally, the Puerto Rican participant also primarily used stops intervocalically, though they were not shortened. The Dominican speaker used a mixture of fricatives and stops intervocalically.

In addition to the effects of contact with English, there were several examples of possible dialect leveling, as well as examples of dialect maintenance. Since the U.S. participants all belong to one of three main dialect groups, the participants of each group will be discussed together.

The participants who comprise the Salvadoran dialect group are US1, US4, US6, and US8. While US1 and US6 did have one or two cases of /-s/ weakening, generally there was no pattern of it in their speech, and this lack of weakening is markedly different from typical Salvadoran speech. US4 and US8 both had several cases of weakened /-s/, but never more than a third of total syllable-final /-s/ cases. Additionally, only US8 showed any velarization of word-final /n/, which is another common trait of Salvadoran Spanish, suggesting that the other three Salvadoran participants lost this feature due to contact with other dialects. US8 herself believes that although she still uses Salvadoran words and *voseo*, she has lost her Salvadoran accent due to contact with Mexican Spanish. US4, who after US8 has the next most-noticeable accent, also said that she

speaks a mix of Salvadoran and Mexican Spanish, which shows that she is very conscious of how contact with Mexican Spanish has affected her own speech. US6 had a fairly “neutral” sounding Spanish, with no noticeably strong Salvadoran traits. US1, on the other hand, showed dialect features that are commonly associated with other varieties of Spanish. She had several cases in which unstressed vowels were weakened before /s/, which is a trait of Mexican Spanish. She also pronounced word-initial <y> as an affricate, which is more common among Caribbean dialects. Since US1 is from New York, it is very possible that she’s been in contact with Mexican and Caribbean Spanish varieties, which could have caused her to pick up these non-Salvadoran traits.

Both US5 and US10 showed characteristics of their Caribbean Spanish dialects, such as velarization of word-final /n/ and devoicing of /r/ and /r/. They also pronounced <y> as an affricate and showed some weakening of syllable-final /-s/, which are other characteristics often associated with Caribbean Spanish. However, while /-s/ weakening did occur, it seemed to happen less frequently than would be expected of Puerto Rican or Dominican Spanish. This will be discussed in more detail in the next section, but it is worth noting here that, potentially through dialect contact, the /-s/ weakening is occurring less than expected for both speakers. In her own opinion, US10 thinks that her Spanish has been affected by her Spanish classes, causing her to minimize some of the Dominican dialect features in her speech. While it seems that this is more of a case of contact with standard Spanish, it still shows a person’s speech changing as a result of contact with another variety of Spanish.

Finally, the Mexican Spanish speakers, such as US2, US3, US7, US9, and US11, showed several interesting dialectal features. Considering the fact that the Mexican population is the largest of all Latin American populations in the United States, Mexican Spanish is often the majority dialect used in Spanish-speaking communities. These participants showed several traits that are characteristic of Mexican Spanish, such as vowel reduction, especially before /s/, and US3 had a noticeable intonation pattern, also characteristic of Mexican Spanish varieties. There was, however, noticeable variation among their speech. US2 had two instances /r/ neutralization, which is a trait characteristic of Caribbean Spanish varieties. Considering the fact that she grew up in a Puerto Rican neighborhood, it is very possible that she picked up this trait through contact with that speech community. She herself says that because she grew up in the U.S. her Spanish is probably less Mexican and more ‘American,’ referring to the mixture of Spanish varieties present in the United States. US9 made a similar comment about how she believes her speech changes depending on who she talks to. Interestingly, US7 believes that his Spanish is largely shaped by a coastal Mexican variety, which normally would show similarities with Caribbean varieties, but his actual pronunciation showed more similarity with central Mexican varieties. This is particularly interesting because US7 seems to have more insight into his own pronunciation, but he did not show features typically found in coastal varieties, like regular weakening of /-s/ and intervocalic /-d-/. US11, on the other hand, did show some regular weakening of /-s/, but does not typically show any other traits that are common of coastal Spanish varieties.

In summary, all of these phenomena show how English has affected Spanish of various speakers in the U.S. to various degrees, and that dialect contact has had at least some influence over some phonetic and phonological aspects of their speech. This information confirms that the speech of these U.S. speakers has experienced linguistic contact and change reported previously by scholars such as Otheguy, Zentella, Lipski, and Escobar & Potowski, and thus provides a more complete profile of their speech. Knowing this will help determine what factors are at play in their treatment of syllable-final /-s/ in the next section. The treatment of /-s/ can change as a result of contact, particularly through dialect leveling. Since the US participants are in contact, it is possible that the realization of /-s/ in the US participants' speech has changed and no longer matches the Latin American varieties. These changes are important because they may differentiate the realization of /-s/ in the U.S. from the realization of /-s/ in Andalusia even more, which would reduce the likelihood of finding traces of Andalusian Spanish in U.S. varieties.

4.3 Comparing Syllable-final /-s/

The Andalusian and US speakers showed significant difference in their weakening of /-s/. While all of the Andalusian speakers showed some kind of weakening and most did so well over fifty percent of the time, the US speakers showed very different results. Six of the US participants did not show substantial /-s/ weakening in their speech and even the five speakers who did show weakening usually did so at rates lower than is typical for their variety of Spanish. None of the US speakers weakened /-s/ more than a

third of the time, which shows that even while they did show some kind of weakening of /-s/, they still tended towards conserving /-s/ instead. In general, as previous studies (Escobar & Potowski 2015) have noted, syllable-final /-s/ is one of the phonetic features often affected by dialect leveling, and it is possible that these five US speakers experienced that in their speech. With the exception of the coastal varieties, Mexican Spanish is known for conserving /-s/, and the Mexican population is the largest of all the Latino populations in the United States. It is possible that these five US participants changed their treatment of /-s/ to accommodate their environments, which may have had many /-s/-conserving speakers around them. In the case of US10, it is possible that her experiences in Spanish classes led to some leveling of her speech, as she notes that the Spanish she learned in school was different from her own Dominican home variety and was more “standard.” US4 and US8 both note that they consider their speech to be influenced by Mexican Spanish, and their treatment of /-s/ is likely one manifestation of their exposure to Mexican Spanish. The leveling seems to have gone a step farther in the Salvadoran participants who belong to the second generation, US1 and US6. Neither of these participants show notable weakening of /-s/ in their speech, which suggests that since they have lived all or almost all of their lives in the U.S., they likely had more exposure to other (possible /-s/-conserving) dialects, and as a result do not weaken /-s/ in their speech. All of these factors likely caused the US speakers’ Spanish to be markedly different from today’s Andalusian Spanish.

In addition to the difference in frequency of /-s/ weakening, the SP speakers showed much greater variation in their forms of weakening. Among the US speakers,

four forms were used: elision, aspiration, shortening, and elision in conjunction with strengthening the following stop. It is important to note, however, that only US4 actually showed this last form; the other US speakers employed only the elision, aspiration, and /s/ shortening. Meanwhile, among the SP participants, there were cases of elision, aspiration, metathesis with /t/, stop strengthening, and /s/ shortening, and they were all exhibited by the majority of the speakers, as opposed to just one. This wide and consistent range of variation does not appear in the speech of the US participants, and shows yet another difference between the two groups. Therefore, not only do the two groups differ significantly in their rate of /-s/ weakening, but they differ substantially in their manner of weakening. The metathesis does not occur in any part of the US participants' speech, and the elision in conjunction with stop strengthening only occurred in one participant's speech. Other than that, only aspiration, elision, and /s/ shortening appear in the US participants' speech, which are indeed the most common forms of /-s/ weakening in the Spanish-speaking world, but not the only forms employed in Andalusia. Given these results, the US and SP groups seem to have diverged considerably in their treatment of syllable-final /-s/. Andalusian Spanish seems to have developed other forms of /-s/ weakening not seen in other dialects included in this study. Additionally, the Spanish speakers in the U.S. with base varieties that would normally have high rates of /-s/ weakening, as in the case for the Salvadoran and Caribbean speakers, do not show nearly the amount of /-s/ weakening that one would likely find in El Salvador, Puerto Rico, or the Dominican Republic. Their treatment of /-s/ has likely been affected by the contact they've had with /-s/ conserving varieties of Spanish, since it has already been

established that these participants' speech shows signs of linguistic contact already. Thus, as Andalusian Spanish continues its high use of /-s/ weakening and even employs new practices for /-s/ weakening, Spanish in the U.S. has moved in the opposite direction, experiencing dialect leveling in favor of /-s/ maintenance in general.

5.0 Conclusion

Historically, the Andalusista Theory claims that Andalusian Spanish played a major role in the development of Spanish in Latin America. Since it is a historical theory, the goal of this study was to determine if any traces of Andalusia's linguistic connection to Latin American Spanish still surface in Spanish in the U.S., considering how U.S. Spanish developed and continues to develop largely through the immigration of Latin Americans to the U.S. Through the 21 Andalusian and U.S. Spanish interviews analyzed in this study, several points arise. Based on the speech of these participants, it seems that Andalusian Spanish and Spanish in the U.S. seem to behave very differently in regard to syllable-final /-s/, which is not surprising, considering how much change has happened to Spanish since colonization and since Spanish became established in the U.S. The SP participants show significantly more /-s/ weakening and greater variation in that weakening than the US participants do, and over half of the US participants don't show any substantial weakening of any kind. This difference is likely due to the evolution of Spanish in the U.S. as it undergoes dialect leveling. The Andalusian speakers also showed much more variation in the way they weaken /-s/, which shows some linguistic change in Andalusian Spanish not seen in the US group. Additionally, other changes in

trends have been observed in the preference for the three speech modes *seseo*, *ceceo*, and *distinción*. While *seseo*, *ceceo*, and *distinción* all exist in Andalusia today and speakers freely switch between them, there is an undeniable tendency, at least among the speakers in this study, towards *distinción*. While Latin American Spanish and Spanish in the U.S. largely adhere solely to *seseo*, Andalusian Spanish seems to be moving towards the traditional Castilian *distinción*, therefore appearing less similar to Latin American and U.S. Spanish varieties than it did historically.

5.1 Future Investigations

There are many questions to answer and many areas still to explore relating to this study. Given the small sample size of this population, it is difficult to extrapolate the findings to Andalusian Spanish and even more so for U.S. Spanish, considering how incredibly varied Spanish is in the U.S. Trends have been found to exist in the speech of these 21 participants, but they cannot be considered representative of their respective speech communities as a whole. A larger-scale investigation would be needed to confirm if the trends found in this study also apply to other parts of the Andalusian and U.S. speech communities. For example, the tendencies towards the three speech modes in Andalusia and the various linguistic traits that resulted from contact in the speech of the US participants would be worth investigating. The present study seems to suggest that there is no strong connection between Andalusian and U.S. Spanish, so while comparing the two regions may not yield much more insight, both regions definitely have more to investigate individually. Or, a study of how immigrants directly from Andalusia realize

their Spanish after living in the U.S. would be more telling⁹. Additionally, there are many more phenomena that were touched on in this study that warrant more attention. The SP participants showed a strong tendency towards *distinción*, but little commentary was gathered about the social perceptions they held in relation to *distinción* versus locally prestigious *seseo*. Future study is needed to determine what social factors may be at play in determining why the tendency towards *distinción* exists. Additionally, some of the traits found in the U.S. participants' speech, such as the velar realizations of <ñ> in US10's speech and the treatments of voiced stops intervocally are both phenomena for future studies to look into. This paper also focused on phonetic evidence, but other components like syntax were not examined. Even in the field of phonetics, this paper was mostly limited to the treatment of sibilants, and while the findings here were telling, there are many more linguistic traits associated with the Andalucista theory that would be worth investigating in order to see how similar (or not) the modern-day realizations are.

In general, this study shows how language is always evolving and adapting to its environment. While Spanish in the US may have some historical ties to Andalusian Spanish by way of Latin American Spanish, it has undergone and continues to undergo change independently and through contact with its environment. In this case, Spanish has adapted to its English environment and adapted to varieties of itself, creating a rich and

⁹ A twelfth participant was interviewed for the US group in this study, but since she originally came from Spain and not Latin America, her inclusion in the group did not seem logical. Instead, her data will be included here: She originally came from Barcelona but her family was Andalusian, and she moved to the U.S. at age 21 and has been living here since then, putting her in contact both with English and other dialects of Spanish (something she herself notes in the interview). She uses *distinción* and, while she maintains /-s/ at the end of syllables most of the time (94.84% of the time in spontaneous speech), she also elided /-s/ occasionally (4.2%) or shortened it (0.96%). Even though she did show weakening of /-s/, she did so far less than the speakers in the SP group. This may be due to the fact while her family is from Andalusia, she grew up in a different region of Spain and may have absorbed some of its regional traits. Further study is necessary to investigate her speech and that of others in similar situations.

varied linguistic region outside of Spain and Latin America. Additionally, while there is evidence showing the role of Andalusian Spanish in the development of Spanish in Latin America, there were certainly other factors and influences at play, including the indigenous and African languages that also came into contact with Spanish. Likewise, Andalusian Spanish, though not necessarily adapting to something new, continues to evolve in its respective region as well. All of these varieties have the capacity to absorb outside influences as well as evolve independently, and a synchronic study such as this one shows the current status of these changes.

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Appendix I. Elicitation Material.

Part One: Wordlist

1. Siento	8. Barcelona	15. Ciento
2. Zapatos	9. Amenaza	16. Estás
3. Esta	10. Salud	17. Fútbol
4. Ensalada	11. Melocotones	18. Veces
5. Niñez	12. Las casas	19. Feliz
6. Casarse	13. Enseñanza	20. Cazar
7. Probablemente	14. Arroz	

Part Two: Short Reading

La fábula del viento y el sol de Esopo - The North Wind and the Sun, Aesop's Fables

Una mañana coincidieron al amanecer el Sol que asomaba y el Viento, que soplaba con fuerza llevándose todo cuanto no estuviera anclado al suelo.

-¡Con qué ánimo te veo hoy amigo viento!- dijo el Sol nada más asomar por el horizonte.

-Aquí me tienes amigo Sol, lleno de vigor y de fortaleza. No existe nada que pueda resistirse a mi voluntad-. Y como queriendo demostrarle al Sol, que sus palabras no eran meras bravuconadas, sopló con tanta fuerza que incluso algunos tejados de las casas se despegaron de las paredes y los árboles fueron arrancados del suelo para ir a parar lejos de donde estaban plantados.

-Bien me demuestras tus fuerzas- dijo el Sol.

-Pues aún podría hacer más-se ufanaba el Viento -, Agito a las aguas y los humanos me temen, las tierras arraso y no hay otro elemento de la naturaleza que pueda emularme.

El Sol observaba al viento que todo lo agitaba y revolvía. -Y dime Viento-Dijo el Sol-, veo que efectivamente tu capacidad para crear destrucción es grande, pero no significa que por ello tu poder sea mayor al poder de otros.

-No me hagas reír-contestó orgulloso el Viento-, ¿Acaso tú podrías superarme?

-Hagamos una prueba si te atreves-dijo el Sol.

-Elígela tú mismo- le contestó el viento desafiante.

Part Three: Open-ended Questions

¿Dónde naciste?

¿Dónde has vivido en tu vida? ¿Te mudaste a otro(s) sitio(s)?

¿Cuántos años tienes?

¿Conoces otras lenguas además de español? ¿Por cuántos años has estudiado/hablado esta(s) lengua(s)?

¿Qué estudias en la universidad? Describe tus clases este semestre, por favor.

¿Has escuchado el término seseo, ceceo, o la distinción? ¿Cómo lo defines?

¿Qué tipo de asociaciones tienes o escuchas acerca de este rasgo?*

¿Qué dialecto hablas? ¿Puedes describirlo?

*Question 7 was asked only if the participant has heard of the feature asked about in Question 6.