

Interdental /s/ in Salvadoran Spanish: Finding Linguistic Patterns and Social
Meaning

A Dissertation
SUBMITTED TO THE FACULTY OF
UNIVERSITY OF MINNESOTA
BY

Ana Cecilia Iraheta

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Dr. Carol A. Klee
Adviser

January 2017

Acknowledgements

La culminación de este trabajo ha sido posible gracias al invaluable aporte de mi directora de tesis, la Dra. Carol Klee, quien de forma responsable y detallada invirtió parte de su valioso tiempo en revisar, corregir y proveer comentarios y sugerencias que contribuyeron significativamente a mejorar la calidad de esta disertación. Además de su apoyo académico, también quiero expresarle mi profundo agradecimiento por el apoyo moral que me ha brindado desde que me conoció. También agradezco a los otros miembros de mi comité, el Dr. Tim Face, el Dr. Francisco Ocampo y el Dr. William Beeman, su pronta ayuda y sus valiosos comentarios.

A lo largo de esta carrera siempre tuve el apoyo de mi familia: mi mamá Pepi, mi papá Julio, mi hermana Ligia, mi abuelo Carlos, mi abuela Juana María, mi esposo Pedro y mi hijo Benjamín. Ell@s han sido mi refugio y mi fuente de energía en los momentos más difíciles y por eso les estoy infinitamente agradecida. También quiero agradecer a mi gran amiga la Dra. Luz María Hernández y a su esposo Craig por su incondicional apoyo y sincera amistad.

Finalmente, quiero agradecer a l@s tecapanec@s que desinteresadamente participaron en este proyecto. Su amabilidad, su sinceridad y su valiosa forma de hablar hicieron posible esta disertación.

Dedication

To my son Benjamin

Abstract

This dissertation provides a description of the internal and external factors that affect the pronunciation of /s/ as interdental [θ] in Salvadoran Spanish as well as its social meaning. Using a variationist and an ethnographic approach, data was collected from 32 participants in a community located in the eastern region of El Salvador. The data was collected and analyzed in order to answer the following research questions:

- 1- What are the internal linguistic factors that condition the pronunciation of /s/ as interdental?
- 2- What are the external factors, both social and stylistic, that condition the pronunciation of /s/ as interdental?
- 3- What social meanings, if any, do speakers associate with the interdental variant of /s/?

The first and second questions were answered performing mixed effects models and pairwise comparisons. Results indicate that word/syllable position, following segment, word function and morphological status are linguistic factors that affect the pronunciation of /s/ as [θ]. Specifically, there are more probabilities of observing the interdental in syllable onset position both word medially and word initially. The use of the interdental is also more common when followed by non-high vowels. The interdental rarely occurs in coda position and when it does, the following segment is typically a pause. It is also more likely to occur in content words than in function words almost exclusively with non-morphemic value. The social factors affecting the interdental are occupation and age group. Specifically, [θ] is more likely to be observed in preteenagers

and in adults over the age of 55 and less likely to be observed in the speech of professionals and civil servants. It was also found that the interdental is more commonly observed in casual style than in more formal styles. Overall, the interdental appears to be a stable sociolinguistic variable in this community.

A qualitative analysis was performed to answer the third research question. It was determined that the interdental is perceived as a stigmatized variant, yet at the same time speakers embrace it as a marker of local identity.

Table of Contents

Acknowledgements.....	i
Dedication.....	ii
Abstract.....	iii
List of Tables.....	ix
List of Figures.....	xiii
Chapter 1 : Introduction.....	1
1.1. Overview: We do not speak like that around here.....	1
1.2. Statement of the problem.....	2
1.3. Significance.....	8
1.4. Organization of this study.....	8
Chapter 2 : Previous studies.....	10
2.1. Introduction.....	10
2.2. /s/ variation in the Spanish language: a brief overview.....	11
2.3. State of /s/ in El Salvador.....	12
2.4. State of [θ] in El Salvador.....	18
2.5. Language internal factors shown to affect /s/.....	21
2.6. Language external factors shown to affect /s/.....	26
2.7. New approaches to /s/ variation.....	32
2.8. Linguistic attitudes toward /s/.....	33
Chapter 3 : Data collection methods and instruments.....	37

3.1. Introduction.....	37
3.2. The Community - General characteristics	37
3.3. Participants.....	39
3.4. Variationist methodologies	41
3.5. Variables	43
3.5.1. Independent linguistic variables	43
3.5.2. Independent social variables	46
3.5.3. Dependent variable	54
3.6. Instruments.....	58
3.6.1. Instruments for determining patterns of /s/ variation.....	59
3.6.2. Instruments for determining language attitudes.....	63
3.7. Ethnographic methodologies	66
3.7.1. Participant-Observer	67
3.7.2. Fieldnotes	68
Chapter 4 . Results	70
4.1. Distribution of linguistic factors	70
4.1.1. Distribution of /s/ in the present study	70
4.1.2. Distribution of [θ] according to word position	71
4.1.3. Distribution of [θ] according to syllable position (SP).....	72
4.1.4. Distribution of [θ] according to preceding and following segments	73
4.1.5. Distribution of [θ] according to stress.....	81
4.1.6. Distribution of [θ] according to word type	83

4.1.7. Distribution of [θ] according to number of syllables	84
4.1.8. Distribution of [θ] according to morphological role	85
4.2. Linguistic factors that significantly affect /s/ as [θ].....	87
4.2.1. Word position.....	89
4.2.2. Syllable position.....	91
4.2.3. Following segment.....	92
4.2.4. Word type.....	94
4.2.5. Morphological status.....	95
4.3. Distribution of social factors.....	97
4.3.1. Distribution of [θ] according to gender.....	98
4.3.2. Distribution of [θ] according to age group.....	99
4.3.3 Distribution of [θ] according to occupation	104
4.3.4. Distribution of [θ] according to education.....	106
4.3.5. Distribution of [θ] according to income.....	109
4.4. Social factors that significantly affect /s/ as [θ].....	111
4.4.1. Age group.....	112
4.4.2. Occupation	115
4.5. Style and the interdental	117
4.5.1. Distribution of /s/ across styles	117
4.5.2. Effect of social factors and style on [θ]	119
4.6. Linguistic attitudes toward [θ]: A qualitative analysis	139
4.6.1. Spanish spoken in El Salvador: Opinions.....	142

4.6.2. Spanish spoken in Tecapán: Is it different?	144
4.6.3. Evaluations: The Spanish of Tecapán vs. the Spanish of other places	146
4.6.4. What do you think of the differences?	151
4.6.5. Would you change the way you speak?	155
Chapter 5 . Summary and conclusions.....	161
5.1. Introduction.....	161
5.2. Summary	161
5.3. Research question 1	163
5.4. Research question 2	167
5.5. Research question 3	169
5.6. Contributions	170
5.7. Limitations and future research	171
References.....	173
Appendix A – The sociolinguistic interview	181
Appendix B - Sociolinguistic questionnaire	183
Appendix C – Reading task	186
Appendix D - Language attitudes	187

List of Tables

Table 2-1 Occurrences of /s/ in Salvadoran Spanish (%)	16
Table 2-2 /s/ occurrences reported by Canfield (1960).	18
Table 3-1 Summary of participants according to social categories.	40
Table 3-2 Distributional, contextual, and functional factors considered in this study	45
Table 3-3 Participants' distribution according to gender and age group.	47
Table 3-4 Criteria used to assign participants to social categories	49
Table 3-5 Number of participants assigned to each occupational category.....	50
Table 3-6 Number of participants assigned to each educational category.....	51
Table 3-7 Number of participants assigned to each income category.	52
Table 3-8 Levels of linguistic independent factors.....	57
Table 4-1 Overall distribution of /s/.....	71
Table 4-2 Overall distribution of /s/ across word position (%).	71
Table 4-3 Distribution of [θ] by word position.....	72
Table 4-4 Overall distribution of /s/ across syllable position (%).	72
Table 4-5 Distribution of [θ] by syllable position.....	73
Table 4-6 Distribution of /s/ according to preceding segment.....	74
Table 4-7 Distribution of [θ] according to preceding segment.....	74
Table 4-8 Distribution of /s/ according to following segment.....	75
Table 4-9 Distribution of [θ] according to following segment.	75
Table 4-10 Distribution of the preceding segment of /s/ across word position.	76

Table 4-11 Distribution of the following segment of /s/ across word position.	77
Table 4-12 Distribution of the preceding segment of [θ] across word position.	78
Table 4-13 Distribution of the following segment of [θ] across word position.....	79
Table 4-14 Distribution of /s/ according to stress	82
Table 4-15 Distribution of [θ] according to stress	82
Table 4-16 Distribution of /s/ according to word type.....	83
Table 4-17 Distribution of [θ] according to word type.....	84
Table 4-18 Distribution of /s/ according to number of syllables.	85
Table 4-19 Distribution of [θ] by number of syllables.	85
Table 4-20 Distribution of /s/ according to morphological role	86
Table 4-21 Distribution of [θ] by morphological status	87
Table 4-22 Analysis of deviance table linguistic factors only.....	88
Table 4-23 Pairwise comparisons of initial, medial, and final word position	89
Table 4-24 Pairwise comparison of initial vs. final syllable position.....	92
Table 4-25 Pairwise comparison of following segments.....	93
Table 4-26 Pairwise comparison of word type	94
Table 4-27 Pairwise comparison of morphological role.....	96
Table 4-28 Levels of social factors considered for the quantitative analysis.	98
Table 4-29 Distribution of /s/ across gender (%).....	99
Table 4-30 Distribution of [θ] and [s] by age group (%).....	100
Table 4-31 Distribution of age group by educational level (%)	100
Table 4-32 Distribution of participants per occupation category (%).	105

Table 4-33 Distribution of /s/ by occupation (%).....	105
Table 4-34 Distribution of participants per education category (%).....	107
Table 4-35 Distribution of /s/ use according to education (%).....	108
Table 4-36 Social characteristics and number of occurrences of /s/.....	109
Table 4-37 Distribution of participants per income.....	110
Table 4-38 Distribution of participants per income.....	110
Table 4-39 Analysis of deviance table for the model including social factors only.....	112
Table 4-40 Pairwise comparison of [θ] between age groups.....	112
Table 4-41 Pairwise comparison of [θ] between occupational categories.....	115
Table 4-42 Summary of tokens extracted from each task.....	117
Table 4-43 Distribution of /s/ according to style.....	118
Table 4-44 Analysis of deviance table for social and stylistic factors.....	120
Table 4-45 Distribution of /s/ according gender and style (%).....	121
Table 4-46 Pairwise comparisons of [θ] pronunciation according to gender and style.....	121
Table 4-47 Distribution of /s/ across age group and casual style (%).....	124
Table 4-48 Distribution of /s/ across age group and careful style (%).....	125
Table 4-49 Distribution of /s/ across age group and reading style (%).....	125
Table 4-50 Pairwise comparisons of [θ] pronunciation across age group and style.....	127
Table 4-51 Distribution of /s/ across occupation and casual style (%).....	129
Table 4-52 Distribution of /s/ across occupation and careful style (%).....	130
Table 4-53 Distribution of /s/ across occupation and reading style (%).....	130
Table 4-54 Pairwise comparisons of [θ] pronunciation across occupation and style....	131

Table 4-55 Distribution of /s/ across education and casual style (%).....	133
Table 4-56 Distribution of /s/ across education and careful style (%).....	133
Table 4-57 Distribution of /s/ across education and reading style (%).....	133
Table 4-58 Distribution of /s/ across income and reading style (%).....	135
Table 4-59 Distribution of /s/ across income and reading style (%).....	136
Table 4-60 Distribution of /s/ across income and reading style (%).....	136
Table 4-61 Pairwise comparisons of [θ] pronunciation according income and style	136
Table 4-62 Answers to the question: Would you like to live in another place?	141
Table 4-63 Characterizations of the Spanish spoken in Tecapán	145
Table 4-64 Characterizations of the Spanish spoken in other places.....	147
Table 4-65 Opinions about the Spanish spoken in other places.	152
Table 4-66 Answers to the questions: Would you change your way of speaking?	155
Table 4-67 Answers to the questions: Would you change your way of speaking?.	156

List of Figures

Figure 1-1 Waveform and spectrogram of the utterance: <i>salíamos</i>	4
Figure 1-2 Spectrum taken in the middle of [s] as part of the word <i>salíamos</i>	4
Figure 1-3 Waveform and spectrogram of the utterance <i>Yo hacía limpieza</i>	6
Figure 1-4 Spectrum taken in the middle of [θ] as part of the word <i>limpieza</i>	6
Figure 3-1 Map of El Salvador.	38
Figure 3-2 Instruments used to collect data along a stylistic continuum.....	58
Figure 4-1 Effect of word position on the pronunciation of [θ].....	90
Figure 4-2 Effect of syllable position on the pronunciation of [θ].	92
Figure 4-3 Effect of the following segment on the interdental.	94
Figure 4-4 Effect of type of word on the pronunciation of [θ].	95
Figure 4-5 Effect of morphological status on the pronunciation of [θ].	97
Figure 4-6 Distribution of /s/ variants by age group (%).	100
Figure 4-7 Production of [θ] and [s] by age groups (%).	101
Figure 4-8 Distribution of [θ] and [s] by occupation.	106
Figure 4-9 Distribution of [θ] and [s] according to education.	108
Figure 4-10 [θ] production per income.	111
Figure 4-11 Effect of age group on the interdental.	113
Figure 4-12 Predicted probabilities of [θ] production across age group and style.	115
Figure 4-13 Effect of occupation on the interdental.	116
Figure 4-14 Distribution of the interdental [θ] across styles.	118

Figure 4-15 Distribution of the standard [s] across styles.	119
Figure 4-16 Predicted probability [θ] production across gender and style.	122
Figure 4-17 Predicted probabilities of [θ] production across age group and style.	128
Figure 4-18 Predicted probability of [s] production across age group and style.	128
Figure 4-19 Predicted probabilities of [θ] production across occupation and style.	132
Figure 4-20 Predicted probabilities of [θ] production across education and style.	134
Figure 4-21 Predicted probabilities of [θ] production across income and style.	137

Chapter 1 : Introduction

1.1. Overview: We do not speak like that around here

While conducting research for the present study, I was talking with a woman in a small Salvadoran town about how people change when they leave for the capital city, and she said: “*Hay gente que viene pronunciando más la ‘s’; más maliciosos, nada parecido a como uno aquí*” ‘There are people who, when they come back, pronounce ‘s’ in a more pretentious way, not even close to how one does it here’. There are several implications that can be highlighted from this woman’s statement. First, in her own terms, she expressed what she perceived as differences in the speech of those who leave the town since she mentions that the way these people pronounce ‘s’ is not even close to how it is normally pronounced in her town. She also reveals her negative attitudes toward those who divert from the pronunciation of /s/ that she is used to hearing by calling them “pretentious,” hinting at the social status of the local variant. At the same time she distinguishes herself from them when she mentions that those who leave do not talk like those in the town. The differences in pronunciation this woman was referring to is what linguists have identified as an interdental pronunciation of /s/ → [θ].

One example that illustrates what I am referring to with the use of the term interdental /s/ is the second /s/ in the word *necesidad* ‘need’ pronounced as [neheθiˈðað] instead of the Latin American standard [nesesiˈðað]. Very little is known about this type of pronunciation. What has been written about it, though valuable, neither accounts for relationships that might exist among internal factors, external factors, and the interdental

/s/ nor does it explore speakers' motivations for the use or absence of this feature in their speech.

1.2. Statement of the problem

One of the first questions I am asked when I mention the topic of my dissertation is whether I am talking about the contrast between /s/ and /θ/ found in Castilian Spanish or whether I am talking about *ceceo*¹ in which the graphemes *s* and *z*, and *c* before *e*, *i*, are articulated as interdental fricatives and which is found in some areas of Andalusia. To clarify, I am studying neither the contrast found in central and northern Spain mentioned above nor *ceceo*. First, it can be observed that in the example provided above there was no contrast between /s/ and /θ/ as [neθesi'dað]. Second, though Hualde (2005) has called the phenomenon I am studying *ceceo* (p. 55-56), this is not the case because the word was not produced as [neθeθi'dað] but as [neheθi'dað] where the first sibilant was aspirated and the second one was articulated as interdental. It is the latter pronunciation that is the focus of my research. Given the current state of knowledge, throughout this study, I will refer to this allophone of /s/ as interdental and I will use the allophone [θ] in transcriptions, as previously done by other linguists (Canfield 1950, 1960; Lipski 1985, 2000, 2007; Azcúnaga López 2010; Parker 2008).

As mentioned above, the focus of this study is the interdental allophone of /s/ in Salvadoran Spanish. In order to distinguish interdental /s/ from the standard [s] in Salvadoran Spanish as well as from the voiceless interdental fricative /θ/ found in parts

¹ In addition to cases of *ceceo* only, according to Navarro Tomás speakers may also shift back and forth unconsciously between *ceceo* and *seseo* without any discernible pattern (cited in Dalbor 1980).

of Spain, in the following paragraphs I provide an acoustic description of these sounds. I begin with the description of Salvadoran [s], then, I continue with a description of the interdental /s/ which is contrasted with /θ/ of Castilian Spanish.

Figure 1.1 shows the waveform and the spectrogram of an utterance by a female speaker (KS²) in which [s] was observed. One of the first aspects to notice is the characteristic aperiodicity of fricatives (the enlarged segmented inserts above the upper panel) shown in the waveform. This aperiodicity is produced by the turbulence that results from obstruction of air flow between the blade of the tongue and the alveolar ridge when [s] was articulated. The spectrogram in the lower panel shows concentrations of energy in the higher frequency ranges. Most of the energy is concentrated above 8,000 Hz as indicated by the dark color within the segment boundaries ([s]). This trend can also be observed in a spectrum taken in the middle of [s] (figure 1.2) in the word *salíamos* ‘we would go out’ which shows the highest peaks (approximately at 8,300 Hz and 11,000 Hz) in the mid part of the spectrum. This coincides with Parker (2008) who found that [s] created a pattern where the spectral envelope begins low, then rises, and then falls again. In terms of intensity, the spectrum also shows an intensity of [s] of approximately -50 dB.

² Participant identification code

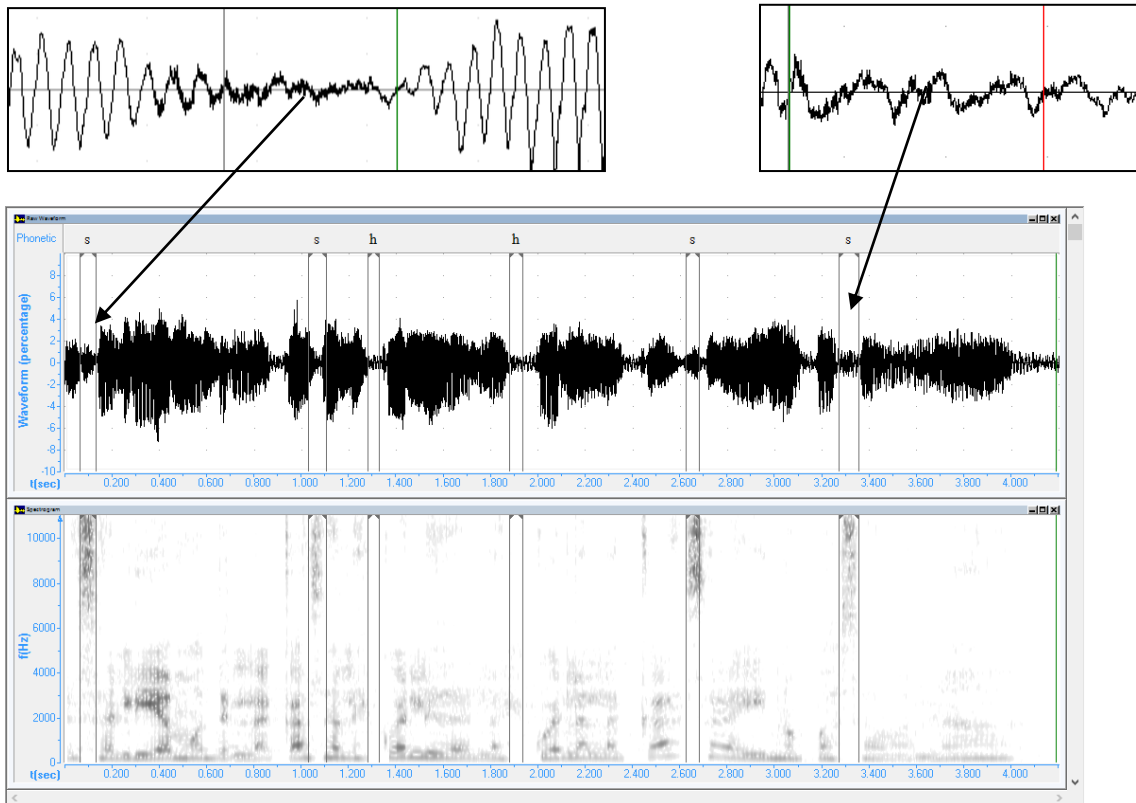


Figure 1-1 Waveform and spectrogram of the utterance: *salíamos de la casa a la escuela y de la escuela a la casa y no pasaba nada*; [sa'ljamoh de la 'kasa a la eh'kwela i ðe la eh'kwela a la 'kasa i no pa'saβa 'naða] '...We would go from home to school and from school back home and nothing would happen.'

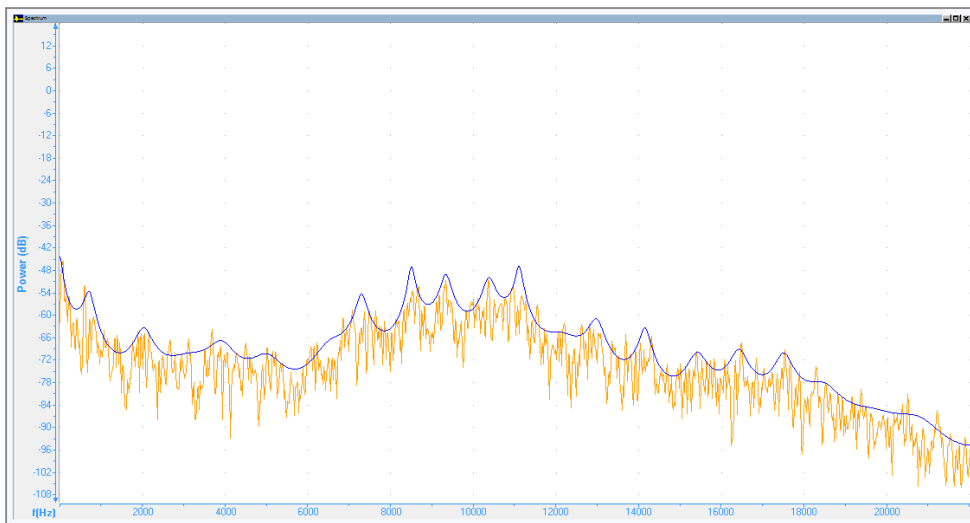


Figure 1-2 Spectrum taken in the middle of [s] as part of the word *salíamos* [sa'ljamø]

Figure 1.3 shows the waveform and spectrogram of an utterance in which the interdental was observed. The utterance was produced by a female speaker (IE, 55+). As in the case of [s], the interdental shows aperiodicity in the waveform. The spectrogram in the panel below figure 1.3 shows acoustic energy that has its source in the turbulence created by the articulators in the oral cavity, but, this turbulence is the result of brief contact between the blade of the tongue and the upper teeth. Though the spectrogram shows acoustic energy, it is weak energy.³ There is almost no energy in the first occurrence of the interdental (in the word *hacía* ‘I would’) as indicated by the less dark color of the segments, but the energy of the second interdental (in the word *limpieza* ‘mop the floor’) is somewhat stronger. Additionally, a spectrum of [θ] taken in the middle of [θ] in the word *limpieza* shows peaks and valleys with frequencies lower than those of [s]. Two of the highest peaks are between 7,000 Hz, and 9,000 Hz. This concurs with results found by Parker (2008) in that the highest peak value of the interdental is much lower (~8000 Hz; figure 1.4) than the highest peak of [s] (~11000 Hz; figure 1.2). Additionally, as observed by Parker, [θ] productions created a spectral envelope with only a falling pattern. In terms of intensity, the intensity of these peaks is lower than the intensity of [s] as their intensity is between -68 dB and -77 dB. In contrast the voiceless interdental fricative /θ/ found in Castilian Spanish, is about -65 dB (Martinez Celdrán y Fernández Planas, 2007). Therefore, in terms of frequency, interdental /s/ shows lower frequencies than [s], and in terms of intensity, the Salvadoran interdental allophone of /s/ has less intensity than both the Salvadoran [s] as well as the Castilian interdental /θ/.

³ The weaker the color in the spectrogram the less energy involved in the production of the sound.

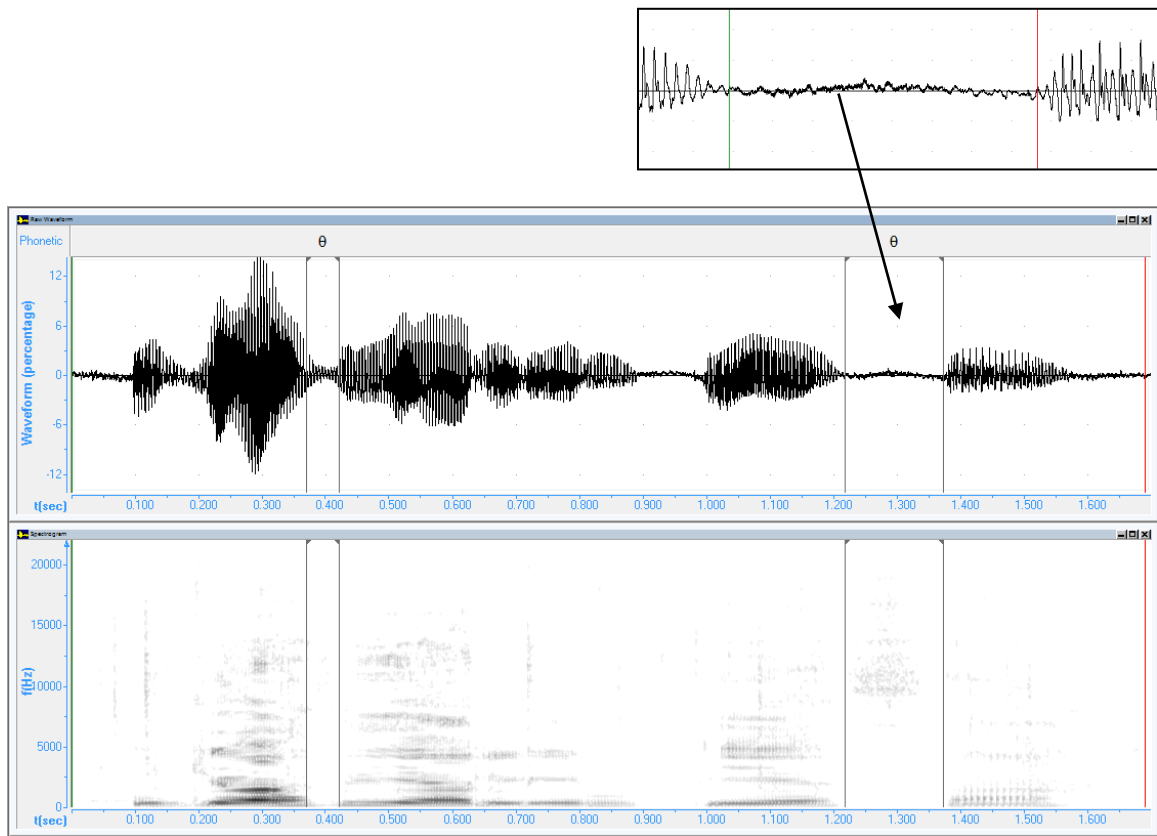


Figure 1-3 Waveform and spectrogram of the utterance *Yo hacía limpieza*; [jo a'θia lim'pjeθa...]; 'I would mop the floor...' by a female participant identified as IE

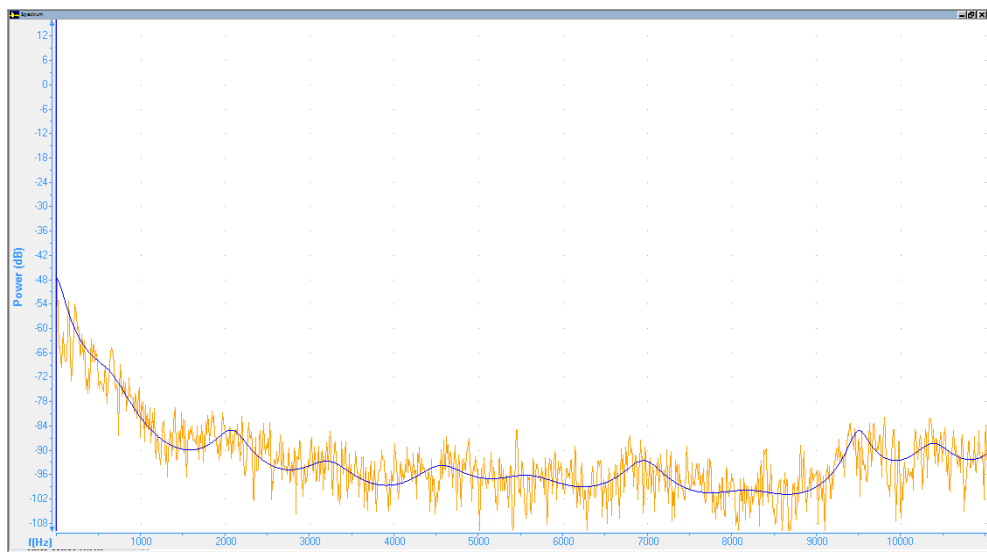


Figure 1-4 Spectrum taken in the middle of [θ] as part of the word *limpieza* [limpjeθa].

While there have been accounts that have briefly mentioned this variant, my dissertation study was motivated by the fact that there was not a systematic account of the relationships between this type of pronunciation and linguistic, social, or stylistic factors. An understanding of the patterning in the production of interdental /s/ in comparison with other variants of /s/ allows us to determine its overall distribution and its relationship with other variants of /s/ in El Salvador.

Besides the lack of studies that systematically accounted for interdental /s/, we also lacked an account that explored or explained speakers' motivations for using interdental /s/. An exploration of linguistic attitudes makes it possible to address some unanswered questions, such as what social meanings does this pronunciation index? In addition, it allows predictions about the future viability of the interdental pronunciation of /s/. For example, is it stigmatized within the community where it is used and/or does it index regional identity? The answers to these questions can provide insight into its possible maintenance in Tecapán.

Thus, motivated by the lack of a systematic account of interdental /s/ my investigation sought to determine from a variationist and ethnographic perspective patterns of /s/ pronunciation in Tecapán, El Salvador, with particular emphasis on the interdental variant and its relation to linguistic and social factors. This study was guided by the following research questions:

1. What are the internal linguistic factors (i.e.: word/syllable position, preceding/following phonological segment, stress, number of syllables, word

function, morphological status) that condition the pronunciation of /s/ as interdental?

2. What are the external factors, both social and stylistic, that condition the pronunciation of /s/ as interdental?
3. What social meanings, if any, do speakers associate with the interdental variant of /s/?

1.3. Significance

This is the first study to provide a systematic account of the occurrence of interdental /s/ in El Salvador, in addition to exploring speakers' attitudes toward its use. It contributes to our understanding of the linguistic and social factors that condition the use of the interdental and the attitudinal factors that influence its continued maintenance. This investigation is also important because by providing a principled account of /s/ behavior it begins to lay a foundation for conducting studies that incorporate new approaches to the study of language variation in El Salvador. Last but not least, this study offers an explanation of a current linguistic phenomenon through the lens of a linguist who is not only native to the community but who also grew up hearing and producing the sound in question.

1.4. Organization of this study

The current study comprises five chapters. In chapter one, I present an introduction to the phenomenon under investigation, the questions that guide the

investigation as well as its significance. In chapter two, I recount what has been written about /s/ variation in general and in El Salvador with particular attention to interdental /s/. In chapter three, I provide a detailed explanation of the methodologies and instruments I used to collect the data that allowed me to answer the research questions presented in section 1.2. In chapter four, I present the results, specifically a quantitative as well as a qualitative analysis of the data collected. Finally, in chapter five I conclude with a summary of findings, a discussion of results, limitations and suggestions for future research directions.

Chapter 2 : Previous studies

2.1. Introduction

In general, studies of /s/ variation of the Spanish language, in particular its weakening processes, are abundant (e.g. Alba 1990, 2000; Brown and Torres Cacoullós 2003; Brown 2005; Calero Fernández 1990; Cameron 2000, 2005; Cedergren 1973; Erker 2010, 2012; File-Muriel 2007; Hammond 1980, Lafford 1986; Lipski 1984, 2000; Poplack 1980, 1981; Terrell 1978). In contrast, studies of /s/ variation of Salvadoran Spanish are few (Azcúnaga López 2010; Canfield 1953, 1960, Geofroy Rivas 1978, Hoffman 2001, 2010, Lipski 1984, 1985, 1988, 2000, 2007; Maxwell 1980, Taler 1997), the majority of which are of a descriptive nature. The main focus of studies of Salvadoran Spanish has been the lexical area; thus, a considerable number of lexical compilations have been published since 1901.

The present chapter presents a review of previous research on Salvadoran Spanish paying special attention to descriptions of interdental /s/ which is the linguistic variable of interest to this study. This review has been organized in several sections. Section 2.2 provides a brief account of /s/ variation in Spanish. Section 2.3 attempts to illustrate the general state of /s/ in Salvadoran Spanish by recounting previous reports of three of the most commonly known variants of this sound [s], [h], and [Ø]. Section 2.4 informs the readers about the current state of knowledge in regard to interdental /s/. The next two sections (2.5 and 2.6) provide a brief account of linguistic and social factors shown to affect /s/. Then, in section 2.7, I present results of a study of linguistic attitudes conducted in the capital city as well as its relevance to the present study. In section 2.8, I present a

brief recount of new approaches to the study of /s/ variation. Finally, I conclude this chapter with an assessment that identifies gaps in our knowledge of interdental /s/.

2.2. /s/ variation in the Spanish language: a brief overview

The phonological variation of /s/ in the form of aspiration [h] and deletion [Ø] is one of the most studied phenomena in Spanish. /s/ is more frequently aspirated or deleted in coda position. Less commonly, this sound can also vary in word-internal/word-initial position. In general, the literature refers to this phenomena as /s/ weakening. Seklaoui (1989) defines weakening as “a more open articulation brought about by the tongue lowering during the articulation of the /s/” (p. 24). This type of articulation, she comments, depends on the position of the sound within the stream of speech and it can be determined by the adjacent phonological segments of the sound or by the position of the sound within the word or within the syllable.

Literature on the weakening of /s/ alludes to several stages in which the weakening process occurs. /s/ weakens first in preconsonantal position (_sC) whether in word-internal position as in *hasta* [áhta] or whether across word boundaries (word-final before consonant) as in *los tíos* [loh tíoh]. The next stage in the weakening process occurs in word-final position before a pause (_s#) as in [loh animaleh]. This, is followed by word-final position before a vowel (_s#V) as in *los amigos* [loh amiroh] (Seklaoui 1989; Lipski 1999, 2011; Bybee 2000, 2003; Hualde 2005).

The stages that have been mentioned so far affect syllable-final /s/, but /s/ is also subject to weakening, though less commonly, in syllable-initial position. For example, /s/

weakens in intervocalic position, specifically, in word-medial syllable-initial position (VsV) as in *presidente* [prehiðente]. Finally, the stage in which /s/ is rarely weakened occurs as a result of the generalization of syllable-initial /s/ reduction from intervocalic position to word-initial position whether in postpausal prevocalic position (#sV) or word-initial position as in *sí señor* [hí heñor]. These last two stages where /s/ is weakened in syllable-initial position have been less documented than weakening in the syllable-final position.

In the weakening process the two main variants that scholars distinguish are (1) a laryngeal aspiration [h] primarily characterized by glottal friction and (2) the complete deletion of /s/ which can be characterized by the suppression of oral articulation.

Aspiration is considered an intermediate stage and deletion the final stage of the process.

Thus, /s/ follows the following path [s] > [h] > [Ø] (Hualde 2005; Lipski 1999; Seklaoui 1989; Terrell 1981).

2.3. State of /s/ in El Salvador

Toward the middle of the 20th century, Canfield provided us with one of the first descriptions of Salvadoran Spanish in which he documented and described general phonetic, lexical, syntactic, and morphological characteristics of this variety. Of interest to the present study are the phonetic observations, in particular those dealing with /s/.

Canfield (1953, 1960) identified four different acoustic manifestations of /s/:

1. Dorsalveolar [s] as in ['saβaðo] 'Saturday'
2. Aspirated [h] as in ['ombreh] 'men',

3. Voiced aspirated [h] as in [loh̟ 'gatoh] ‘the cats’,
4. Interdental [θ] as in [Θe'ñor] ‘mister/sir’

Canfield based his observations on more than 100 recordings of conversations he collected from speakers, whom he calls “informants representative of the Salvadoran population”. He mentions that in order to capture “possible differences” he included speakers of different ages, from different social classes (determined by occupations) and from different geographic regions. Then, he presents a list of characteristics of 14 informants whose ages ranged from 17 to 66 years old. As to participants’ occupations, Canfield includes farmers, peddlers, students, waitresses, and a lawyer. In regards to [s], he reports that [s] is aspirated in syllable-final position, though not as much as in Caribbean Spanish. In this study, there are no other reports as to differences and/or relationships between [s] pronunciation and the social factors considered.

Geofroy Rivas (1978) presents an overview of Salvadoran Spanish with sections on the origins and evolution of this variety as well as a section with a list of lexical influences of Nahuatl in the Spanish of this region. In regards to the phonological evolution pertaining to /s/, Rivas (1978) suggests that Salvadorans do not distinguish in their pronunciation of *s*, *c*, and *z* due to the influence of a Nahuatl phoneme described as a voiceless fricative velar represented by [h]. He adds that this phoneme sounds like a brief and aspirated ‘*s*’ used in words such as *nosotros* [no'hotros] ‘we’. This argument was refuted by Lipski (2007) who observed that the pronunciation of /s/ as [h] is not due to Nahuatl influence since this same change occurs in the popular Spanish of all Spanish speaking countries. Additionally, Lipski alludes to the findings that suggest that Nahuatl

is responsible for the conservation of syllable final /s/ in Mexican Spanish as another argument against the assertion that aspiration is due to influence from Nahuatl.

Maxwell (1980) reports some of the phonologic, morphologic, and syntactic features that distinguish Salvadoran speakers in general and a few that are characteristic of certain social or regional groups. Her data consisted of 18 interviews collected in different parts of the country using a sociolinguistic questionnaire; 5 narratives; and 5 recordings of “university people” having a conversation. According to Maxwell (1980) one of the outstanding characteristics of Salvadoran phonology is /s/ aspiration in syllable final position which occurs at a rate of 80%. It occurs at this same rate in word internal position before consonants. /s/ aspiration occurs less frequently (40%) in syllable initial position. It decreases as speech rate and formality increases. Additionally, aspiration of syllable initial /s/ is frequent in the speech of speakers from lower socioeconomic groups since it occurs less as a speaker’s economic resources increase. Aspiration of /s/ in intervocalic position is even less frequent as it occurs in only 20% of the cases. Maxwell also notes that /s/ is susceptible to deletion, yet does not provide any numbers to illustrate it. Maxwell argues that when /s/ is deleted, ambiguity is generated in the number of a noun. To compensate for this ambiguity, a verb is used to indicate number, for example, *laØ gallina[Ø] [h]on* ‘the hens are’. The author states that the elision of /s/ is more frequent than its maintenance, however, no statistics are provided.

Taler (1997) provides an account of the phonological factors conditioning /s/ weakening. This study is informed by the Optimality Theory utilizing the notion of crucially unraked constraints. Specifically she examined /s/ weakening in the Spanish of

16 speakers from San Miguel, El Salvador. In her analysis she considered the following social factors: socioeconomic status, age (18-36; and 40+), and sex. In addition, she considered phonological factors which included voice, manner, and place of articulation of the preceding and following segment, position of sentential stress, position of the segment in the syllable and word, and word length. She also considered the morphological status of /s/; position of the NP, number of preceding plural markers, and redundancy of the plural marker. Taler (1997) found that /s/ appeared to be in stable variation that was primarily governed by three phonological factors: the following segment, syllable/word position, and stress. Specifically, she found that weakening is not likely to occur before a coronal stop. In regard to syllable/word position, weakening is favored in coda position word internally and word finally; and /s/ is most likely to be weakened when stress does not occur near the /s/ segment. Additionally, she observed that lower class speakers showed a tendency to weaken /s/ more than upper class speakers. She also observed that there was an interaction between sex and level of education but these factors were not found statistically significant on their own. It was also observed that men weakened more than women. Age was not found to be significant. Finally, when /s/ is a marker of plurality, it is more likely to be deleted if it is redundant.

The majority of works that exist on Salvadoran Spanish have been published by Lipski (1985, 1988, 2000, and 2007) some of which have appeared in combination with studies of other Central American countries such as Honduras and Nicaragua. Lipski

(1985), for example, examines /s/ behavior and the possible diachronic processes that could have given rise to its current configurations in Central America.

Of interest to the present study is data presented by Lipski (1985, 2000) in terms of distributions of /s/ in El Salvador. The data for these studies comes from recorded conversations made in the capital city, San Salvador. Lipski (2000) included ten participants who had at least completed secondary schooling. Each participant provided approximately one half-hour interview in which informal conversational styles prevailed. Results from both studies were similar in that syllable final /s/ is aspirated at higher rates in the lower sociocultural levels. A detailed description of results from Lipski (1985) indicates that in pre-consonantal position the most common variant is [s] at 54%, followed by [h] at 44% and [Ø] is the least common at 2% (see table 2.1).

sC			s#C			s##			s#V'			s#V		
s	h	Ø	s	h	Ø	s	h	Ø	s	h	Ø	s	h	Ø
54	44	2	10	65	25	85	10	5	46	43	1	28	69	3

Table 2-1 Occurrences of /s/ in Salvadoran Spanish (%).

Legend: C= consonant; V'= stressed vowel; V= unstressed vowel; # = word boundary; ## = pause
Taken from Lipski (1985)

Table 2.1 also shows that aspiration [h] is the most frequent variant of /s/ before a consonant across word boundaries (s#C = 65%) and also when followed by an unstressed vowel (s#V = 69%). In addition the highest percentage of /s/ retention ([s] = 85%) is found in final position when followed by a pause (s##).

Lipski (2000) reports the aspiration of /s/ in syllable-initial position whether in word-initial position as in *la semana* [la he'mana] 'the week' or intervocalic position as in

presidente [prehi'ðente] 'president'. Syllable-initial aspiration occurs nearly always before unstressed vowels. Lipski mentions that to date there is insufficient information to allow us to trace this phenomenon in this region. One possible approach, he claims, is the area of lexical extension. Lipski explains that in everyday contexts word initial /s/ is very commonly aspirated in the word *centavo* and in words that involve fractional combinations such as *cincuenta*, *sesenta y setenta*. The combination of the word *centavo* with the latter type occurs with great frequency and for many speakers these words have become lexicalized with word-initial [h]. At any rate, he states that further exploration is needed to determine the possible causes of this development.

This information is useful as it allowed me to compare realizations of [s], [h], and [Ø] with realizations of interdental /s/ and see how the distribution of these variants in Tecapán compares to the data collected by Lipski in San Salvador in the 80's.

Finally, Hoffman (2001, 2010), in a study of /s/ aspiration and deletion conducted with 18 Salvadorans ages 15-23 living in Toronto recorded conversations in three styles: careful style, reading passage, and word list. Hoffman found that overall /s/ is weakened at a rate of 42%. She also found that in free conversation speakers aspirate at a rate of 25% and delete at a rate of 17%. In reading style speakers aspirate and delete at a rate of 7%. Aspiration and deletion showed the lowest rates in the most formal style, therefore, in word list speakers aspirate and delete at a rate of 2%. Therefore, rates of /s/ weakening decrease as the formality of the task increases.

2.4. State of [θ] in El Salvador.

Canfield (1953) mentions that *s* and *z* when in syllable initial or syllable final position are articulated as dorso-dento-alveolar, so close to the upper incisors that it often times become coronal interdental, similar, yet not as strong as the /θ/ of central and northern Spain (Canfield, 1953, p. 32). According to this linguist, this type of articulation is heard more often in people who belong to a low social status. Canfield also mentions that it can occur sporadically in the speech of individual speakers. He adds that this is the same type of *s* that alternates with the dorsoalveolar *s* of southern Andalusia described by Navarro (1934). Some of Canfield's relevant findings to my investigation are reported in table 2-2. It should be made clear that when referring to syllable initial and to intervocalic /s/, Canfield does not specifically mention whether he is referring to syllable initial /s/ in word initial or word medial position.

	[s]	[h]	[θ]
Syllable final before <i>p, t, k</i>	184 (55%)	118 (35%)	32 (10%)
Syllable initial	251 (79%)	13 (4%)	55 (17%)
Word final	117 (59%)	59 (30%)	22 (11%)
Intervocalic	189 (56%)	78 (23%)	71 (21%)

Table 2-2 /s/ occurrences reported by Canfield (1960). (Percentages were calculated by the author of the present study)

This data shows that speakers tend to favor the sibilant [s] variant in all linguistic environments with the highest rate of occurrences in syllable initial position at 79%. In all other environments [s] occurs more than 50% of the time. The aspirated [h] variant occurs most frequently before voiceless plosives at a rate of 35%. The second highest rate

of [h] occurs in word final position at 30%. As to the interdental [θ], the two environments that favor it the most are intervocalic position at 21% and syllable initial position at 17%.

These observations are valuable as they constitute one of the first reports of patterns of /s/ variation in Salvadoran Spanish. In addition, these observations are an important point of comparison that may shed light in trying to determine possible changes in progress in the variety under study. However, Canfield's study presents some methodological inconsistencies that may have had an impact on the results reported. For example, it is not clear whether Canfield's reports are based on the more than 100 recordings that he made or whether this report is based on the list of 14 speakers that he presents. In addition, he does not mention the procedures he followed for calculating the /s/ occurrences that he reported. Furthermore, even after explicitly mentioning that he included different social factors, he does not report how these factors may have an effect on differences in the pronunciation of /s/.

Lipski (2000, 2007) reported an interdental pronunciation of /s/ which is often times accompanied by a strong nasalization and it is heard in the speech of "rural Salvadorans". This pronunciation, he adds, is neither related to the /s/ vs. /θ/ distinction that occurs in parts of Spain nor is it *ceceo* as in rural Andalusia since it is not applied to all words. He mentions that, after a close examination of the material gathered, no systematic pattern of interdental /s/ was revealed. Nevertheless, it is not clear how the information for the studies in which Lipski reported occurrences of interdental /s/ in El Salvador was collected, and very little is known about the participants, such as their

relationship to the researcher, their ages, their gender, and their socioeconomic background, and how these factors were treated and analyzed.

In “Fonética del español salvadoreño” Azcúnaga López (2010) offers general phonetic observations of Salvadoran Spanish based on a linguistic atlas named ALPES which was presented as his doctoral dissertation. His objective is to characterize dialectal zones by explaining regional differences and the distribution of these differences. His data was collected from 80 informants belonging to 20 different urban communities.

In regard to /s/, this author, like Lipski (2000, 2007) and Canfield (1953, 1960), identifies [θ] but he refers to it as *ceceo* or a dentalized pronunciation of /s/. Azcúnaga López (2010) reports that in prenuclear position /s/ is manifested as dorsodental [s] and as dentalized [θ] which he also labeled as *ceceo*. Based on the tables that this author provides, /s/ in syllable initial position when followed by /a/ is realized as [s] 83.3% of the time and as dentalized or as *ceceo* 7.5% of the time. He also mentions that speakers alternate between [s] and [θ] 6.2% of the time, yet it is not clear under which circumstances speakers alternate between these two allophones. In intervocalic position [θ] is produced 10% of the time in comparison with 78.8% produced as [s]. According to the author, in postnuclear position the most productive environments of [θ] are before a nasal bilabial and before liquids, yet he adds that no definite conclusions can be drawn with respect to the situation of /s/ as [θ]. Finally, this author situates the interdental in a large portion of the country that includes the entire eastern region as well as the upper northern part of both the central and the western regions.

Though Azcúnaga López also reports /s/ aspiration in syllable-initial position, he finds that this type of aspiration is not limited to a particular type of word, as observed by Lipski. He also finds syllable-initial aspiration in words such as *de Santa Ana* [de hanta'na], *la Sandrita* [la han'drita], or *entonces* [en'tonhe]. He reports the occurrence of syllable-initial aspiration, but does not give an explanation of this type of variation. Finally [Ø] was registered mainly in absolute final position before voiceless plosives and before trills.

In her master's thesis, Parker (2008), conducted an acoustic and statistical analyses of [s] and [θ] using the spontaneous speech of 20 subjects from different areas of El Salvador and from different socioeconomic backgrounds. In her study Parker demonstrated that there were significant differences in the production of [θ] and [s]. Specifically, the average peak values of [θ] were significantly different from the average peak values of [s]. In other words, [s] productions created a pattern where the spectral envelope begins low, then rises, and then falls again, while [θ] productions created a spectral envelope with only a falling pattern.

2.5. Language internal factors shown to affect /s/

Though some language internal factors have been studied more extensively than others, position of /s/ in the syllable, position of /s/ in the word, preceding segment, following segment, morphological role, word frequency, word length, stress, and speech rate have been shown to affect the pronunciation of /s/ as [s], [h], or [Ø]. In the following sections, I provide a brief description of the effect of these factors.

Position of /s/ in the syllable and position of /s/ in the word

As Lipski (1999) mentions, the frequent weakening of syllable and word final /s/ to [h] and to [Ø] allows the delimitation of dialectal zones in Spain and in Latin America. According to Hualde (2005), in Spain /s/ variation is widespread roughly in the southern part including Andalusia, Murcia, Extremadura as well as in the Canary Islands. Hualde (2005) also mentions that the weakening of syllable final /s/ appears to be spreading throughout Spain in colloquial registers.

In Latin America, maintenance of /s/ “is a characteristic of the highlands of Central Mexico and Guatemala, central Costa Rica and the Andes” (Hualde 2005; p. 161). In other parts of Latin America, variation in the form of aspiration and deletion is found to varying degrees. These other parts include the Caribbean varieties, several Central American dialects, and the Pacific Coast of South America. Studies within these regions have found that /s/ tends to be weakened in syllable- and word-final position. Specifically, it tends to be aspirated in preconsonantal position whether in the same word or across word boundaries. Weakening in the form of deletion is favored before a pause. Furthermore, /s/ is less frequently weakened before vowels (e.g.: Cedergren 1973; Poplack 1980; Lipski 1994, 1999; File-Muriel and Brown 2011; Hualde 2005; Erker 2012). In a study of the variable /s/ in Panama City, Cedergren (1973) found that final /s/ tends to be aspirated in preconsonantal position while deletion occurs more frequently before a pause. Though /s/ weakening occurs more frequently in word and syllable final position, it also occurs in syllable initial position. As such, it has been

documented in New Mexico, El Salvador, and Honduras (Brown 2004, 2005; Lipski 2000, 2011; Azcúnaga López 2010).

Preceding segment

Some studies have found that, to a lesser extent, preceding segment is an internal linguistic factor that affects the pronunciation of /s/. For example, according to File-Muriel and Brown “Although the preceding context is significant and relevant to s-realization, its influence is substantially less than that exerted by the following phonological context” (2011: 239). Brown (2006) reports that there were significant differences in the weakening of syllable-initial /s/ based on the preceding vowel. Specifically, non-high vowels /a e o/ favors reduction (weakening) while preceding vowel /i u/ favors retention.

Following segment

The following segment has been reported often as a predictor of /s/ weakening. Specifically, /s/ is more likely to be produced as [h] or as [Ø] when followed by consonants whether in the same word as in *costa* ['kohta] ‘coast’ or across boundaries as in *más comida* ['mah ko'mida] ‘more food’. The second most common segment that favors /s/ weakening is a pause. Vowels also favor weakening but to a lesser extent. (Terrell 1978; Bybee 2000; File-Muriel and Brown 2011, Erker 2010). Additionally, File-Muriel (2007) reports that weakening is favored when /s/ is followed by a fricative. In contrast, /s/ weakening is disfavored when followed by a stop.

Morphological role

There is lack of consensus among accounts of the relationship between the status of /s/ as a lexical, plural/verbal marker and the weakening of this sound. The hypothesis (based on the functionalist hypothesis) that many studies have examined is that /s/ should be retained as [s] or [h] more frequently when it carries a functional load (i.e., when it functions as a plural or verbal marker or in other words when it has morphemic status) than when it has non-morphemic status (Kiparsky 1972; Terrell 1977, 1980-1981; Ma & Herasimchuk 1971; Calero 1993) For example, the plural /s/ in *cosa-s* ‘things’ or in *comes* ‘you eat’ should be weakened less frequently than the lexical or non-morphemic /s/ in *entonce-s* ‘then/so’. Early studies (i.e., Terrell 1977, 1980-1981; Hochberg 1986) that tested this hypothesis seemed to indicate that morphological role was important and that deletion was not as frequent when /s/ was a morphological marker. More recent studies (Poplack 1980; Uber 1981; Cepeda 1995; López Morales 1983a; Ranson 1988; Valdivieso *et al* 1988; Ruiz-Sánchez 2004) have shown that the morphological function of /s/ does not appear to have an impact on deletion and that phonological factors are what determines whether /s/ will be deleted. Though some studies did not find support for the functionalist hypothesis, their conclusion in regard to how speakers compensate for the loss of morphemic /s/ to preserve semantic information, differed. For example, Hochberg (1986) found that second person singular verbs are more likely to occur with overt subject pronouns when /s/ is weakened in these verbs. In contrast, Ruiz-Sánchez (2004) found in the Spanish of Caracas, Venezuela that not all morphemic /s/ are retained and that subject pronouns are not inserted to clarify the ambiguity created by /s/ deletion.

Word frequency

Several studies (Bybee 2002; Brown and Torres Cacoullos 2003; Esther Brown 2006; Earl Brown 2008) have found that /s/ is weakened at higher rates in frequent words than in low-frequency words. For example, in a study of the Spanish of Barranquilla, Colombia File-Muriel (2009) found that speakers tend toward the full articulation of /s/ as [s] in low-frequency words, while weakening /s/ in high-frequency words.

Word length

It has been shown that word length is a linguistic factor that conditions /s/ weakening: polysyllabic words show /s/ weakening more frequently than monosyllabic words (Terrell 1979; Cepeda 1995; Ruiz Sánchez 2004). For example, Terrell (1979) found that speakers tended to avoid deletion in monosyllabic word where it only occurred 6% of the time while in polysyllabic words it occurred 36% of the time. Similarly, Ruiz Sánchez (2004) found that there is a statistically significant correlation between the number of syllables and /s/ deletion. In her study, words containing 6, 5, and 4 syllables are those that strongly favor deletion. Two and three syllable words significantly favor deletion, but to a lesser extent. In contrast monosyllabic words disfavor deletion.

Stress

It has been found that the weakening of /s/ is highly likely to occur in unstressed phonological environments. (Cedergren 1973; Terrell 1979; Alba 1982). For example, Terrell (1979) in a study of final /s/ in Cuban Spanish found that a following stressed

vowel is a positive factor in the retention of a sibilant. Specifically, he found a higher rate of sibilant retention before stressed vowels (39%) than before unstressed vowels (19%). It has also been found that deletion is disfavored before a stressed vowel (López Morales 1980; Alba 1990). More recently File-Muriel (2011) found that stress was a powerful predictor of /s/ realizations. This author reports that atonic stress tends to favor /s/ reduction while tonic stress tends to favor /s/ maintenance.

Speech rate

Several studies (Lipski 1985; Alba 2004; File-Muriel 2009, 2011) have found that speech rate conditions the weakening of /s/. File-Muriel (2011) in a study of /s/ lenition in the Spanish of Cali, Colombia, found that this factor was a strong predictor of /s/ realization, specifically, that an increased rate of speech tends to result in higher incidence of weakening and assimilatory processes. Additionally, the author states that the realization of /s/ covaries with register in that /s/ retention is greater in formal speech styles and in reading tasks.

2.6. Language external factors shown to affect /s/

The variation of /s/ has been found to be conditioned by varying characteristics of the speakers, for example, gender, age, socioeconomic status, and education level (e.g.: Labov 1972; Fontanella de Weinberg 1974; Cameron 1996; Eckert 2012). Studies have also found that /s/ weakening is also conditioned by differences in speech style (Lipski 1985; Lafford 1986; Alba 2004; File-Muriel 2009).

Gender

Gender, like social class and age, is a social factor that affects linguistic variation. Some of the most common generalizations based on observations in many communities are, for example, that women deviate less from the prestige standard than men and that women use innovative forms more frequently than men when those forms are not stigmatized. It has also been observed that women's speech is often more variable than men's in terms of stylistic variability. In a study of pleonastic clitics in Chilean Spanish, Silva Corvalán (1981a) found that men produced this non-standard form more than women. In regards to innovation, Rissel (1989), in a study of the asibilization of /r/ by young people, found that young women asibilated this non-stigmatized variant more frequently than young men and were the leaders in introducing an innovative variant to the speech community. In relation to stylistic variation and gender, Valdivieso and Magaña (1991) found that in Concepción (Chile) in formal styles, women aspirated /s/ less than men.

One of the most common explanations for the linguistic differences between females and males takes into account the social status of women. It has been proposed that women are more status conscious than men because of the standards set for female behavior and also because the lifestyle of women is focused more on domestic labor rather than wage labor. For this reason, women have less economic power and as a consequence rely on the symbolic power of language to obtain the status that has been denied to them (Trudgill 1972a; 1974a).

Though the tendencies mentioned above have not only appeared in urban industrialized Western societies but also in isolated areas and other large cities, not all sociolinguistic variables show a sex effect (Labov, 1990: 212). For example Dorta (1989) found that in La Perdoma, Tenerife, there are no significant differences between men and women in the production of standard and non-standard forms of the liquids /r/ and /l/. As Coates and Cameron (1988) comment, the tendencies for women to prefer prestige variants are widespread, but not universal or unchangeable.

The effect of gender on linguistic variation has also been explained through the application of the segregation/separation hypothesis proposed by Cameron (2005). Based on recurrent findings across multiple societies he predicts that females and males, as children and as adults, will segregate or separate themselves linguistically according to their stage of life. He proposes that the greatest degree of gender segregation will be found in young speakers (children prior to teen years and teenagers) as well as in older adults (beyond age 60 or 65). The least gender segregation will be found in adults during the years of their active work life. In Cameron's (2005) study these predictions are explored by identifying patterned degrees of difference between female and male speakers across their lifetime using the apparent time construct (see section 3.5.2.2. Age). He finds that the greatest differences are found between teenagers and the oldest groups. Cameron also finds that there are important differences between older adults and young adults. The least degree of linguistic differences was observed between young adults and adults 40 to 50 years of age. In addition, these results show that linguistic differences between preteenagers and teenagers were not as big as expected.

Age

Many sociolinguistic studies have demonstrated that age is a social factor which has an effect on language variation (e.g.: Labov 1972; Cedergren 1973, Cameron 2000). In a study of three basic variants of word final (s) in Puerto Rican Spanish, Cameron (2000) for example, found that the null variant [Ø] was produced in higher percentages by the youngest and oldest groups. Middle age groups on the other hand, produced the lowest rates of non-standard variants. Such behavior has been attributed to the pressures on using the standard language in the workplace (Eckert, 1997: 164). Taking these findings into account, in the present study, I seek to discover which age groups are more likely to favor or disfavor the interdental variant of /s/ and in particular whether the interdental pronunciation increases, decreases, or remains stable throughout different age groups.

Age is also the primary social correlate of a change in progress. When a particular variation results in change, patterns of use of a variant are observed the least in the speech of the oldest generation yet it occurs with greater frequency in middle generation; and with the greatest frequency in the youngest generation. As Chambers (2004) states, if a variant represents linguistic change, its frequency will increase down the age scale. In contrast, when the highest numbers of use of a linguistic variant are found in the youngest and the oldest groups while the groups in the middle have the lowest scores, it does not represent a change in progress. This is the pattern of age grading, in which the members of a community alter their speech according to the life stage in which they are. For example, if the variant in question is stigmatized, middle groups suppress its use in favor

of the prestige variant in order to conform to social pressures and expectations (Chambers and Trudgill 1998; Tagliamonte 2012).

Many studies that have included age as a social variable have defined age based either on an etic approach or an emic approach. When defined etically, speakers are grouped in arbitrarily determined but equal age spans, such as decades. When defined emically, in contrast, speakers are grouped according to some shared experience of time such as general life stages (childhood, adolescence, adulthood) or history (linguistic changes associated with political, social, and economic transformations) (Eckert, 1997).

Socioeconomic status and education

The general tendency is that speakers of lower socioeconomic status and with lower levels of education will show higher rates of /s/ weakening than speakers of higher statuses (Labov 1972, Cedergren 1978; Terrell 1978). For example, Lafford (1986) in a study of the influence of linguistic, stylistic, and social factors influencing syllable/word final /s/ in the Spanish of Cartagena, Colombia found that [s] appears to be the prestige variant because of its frequent use in formal styles by speakers from high socioeconomic status. In contrast, /s/ deletion seems to be the stigmatized variant because of its frequent use in informal styles by speakers from low socioeconomic status. Lafford proposes that the aspirated variant of /s/ can be considered as the neutral variant because it is common in informal styles in all social groups.

Style

It has been reported that in formal speech styles speakers tend to show lower rates of /s/ weakening (Labov 1972; Lipski 1985; Eckert 2000; Tagliamonte 2012; Schilling, 2013). For example, Lafford (1986) concluded that [s] was more common in more formal speech and that it also was a prestigious variant associated with a high social position.

Style is important in variationist studies as it allows the researcher to determine whether a variant is a stable sociolinguistic variable or whether it reflects a change in progress. In a context of stable variation a parallel often occurs between stylistic and social patterns (Cameron 2000; Tagliamonte 2012). For example, low prestige forms tend to be produced in the most informal style and prestige forms tend to be produced in more formal styles. Furthermore, speakers in the lower socioeconomic levels tend to produce more low prestige variants in informal style than those in higher socioeconomic levels. In terms of gender, women tend to produce more prestige variants than men. In contrast, when a change is in progress, age is the primary correlate, as such, there are incremental increases in the proportion of use of a linguistic feature from one age group to the next (Labov 2001; Chambers 2004; Tagliamonte 2012; Díaz-Campos 2014).

Though social categories have been shown to have an effect on the realization of /s/, these are very broad generalizations that do not demonstrate how individuals use weakened /s/ variants meaningfully to create an identity within a larger social group. Recently, some studies have begun to examine speakers' use of the variants of /s/ to create social meaning (Alfaraz 2000; Eckert 2005; Lynch 2008). For example, Lynch (2008) found that Cuban-Americans, the grandchildren of early Cubans, use the variant

[s] to differentiate their speech from that of later Cuban immigrant groups, which tend to have higher rates of /s/ deletion.

2.7. New approaches to /s/ variation

The majority of previous research on /s/ that has been conducted within the variationist paradigm treats the phenomenon in categorical terms, meaning that it can be described segmentally (Erker 2010), i.e., /s/ can be fully articulated as [s], as aspiration [h] or deleted completely.

In recent years the analysis of linguistic variation of /s/ has expanded its scope thanks to the development of computer-based techniques which have been used to research socially conditioned variation in speech sounds or socio-phonetic variation from a perspective that looks beyond the boundaries imposed by segmental description. These computer based techniques allow for instrumentally measuring the acoustic properties of speech in terms of two continuous acoustic measures, duration and center of gravity. These two measures, according to Erker (2010, 2012) have been shown to adequately characterize gradient acoustic differences between tokens. Using instrumental analysis researchers have been able to uncover systematic socio-phonetic variation within single segmental categories and also across segmental categories. For example, two or more tokens that are described as identical in terms of segments differ significantly when they are described in terms of their acoustic properties (Erker 2010, 2012). One of the conclusions drawn by Erker in these studies is that the phonetic facts of /s/ weakening are significantly obscured by segmental description.

Erker demonstrates that an instrumentally based analysis of /s/ production can be used as a tool for expanding our understanding of the phenomenon. His approach, however, departs from a wealth of previous research in which the internal as well as the external factors that condition /s/ and the variants [s], [h], and [Ø] have already been determined. Because the purpose of this dissertation is to take the initial step of conducting a variationist analysis of interdental /s/ in a community in El Salvador, I have chosen to study this variant at a segmental level in order to paint a basic picture of the factors that condition the realization of this variant. A sub-segmental approach in coda position such as Eker's, thus, would be a next logical step that would help us to further understand the factors that condition the realization of /s/ as interdental, but is left for future research.

2.8. Linguistic attitudes toward /s/

Quintanilla Aguilar (2009, 2012) studied linguistic attitudes in El Salvador. His 2009 study focuses on attitudes toward *voseo* vs. *tuteo*, while the more recent article includes a variety of different topics. It deals with general attitudes toward the Spanish spoken in El Salvador in contrast with an idealized version of the Spanish spoken in central and northern Spain. It also explores attitudes toward the relationship between orthography and pronunciation. To my knowledge, Quintanilla (2012) is the only study that briefly reports findings on linguistic attitudes toward /s/, specifically its aspirated variant.

This latter study was conducted in the capital city. It included 100 randomly selected participants who were assigned to different groups according to gender, age, socioeconomic class, and educational level. In total there were three age groups: (1) 18 to 29 years old; (2) 30 to 49 years old; and (3) 50 years and older. In regard to social class there were two groups: middle and lower class. As to education, there were three educational level groups: (1) no more than 9 years of schooling; (2) those attending or who had completed high school; and (3) those who had attended, were attending, or who had completed college. The study was carried out in several locations: private and public universities, and in low and middle class neighborhoods of the capital city San Salvador. Participants were asked to complete a survey that contained 16 statements on linguistic attitudes. Each statement was accompanied by a Likert scale which included five possible answers.

The survey statement that concerns the present study is found under the topic dealing with orthography and pronunciation. This statement seems to be directly related to /s/ aspiration:

(1) *Creo que está muy mal cuando alguien dice “son las jocho” en vez de “son las ocho”*
I feel that it is bad when someone says “It’s eight o’clock (with aspiration)” instead of
“it’s eight o’clock (without aspiration)”

Though a statistical analysis did not show significant differences between groups, 72% of participants agreed with the statement above. This, according to Quintanilla, seems to indicate that /s/ aspiration is stigmatized in El Salvador. However, given the definitions

used and the statements employed for the survey, this interpretation, in my opinion, is problematic. The author makes a distinction between /s/ aspiration and what he calls *jejeo*. When he talks about aspiration it seems that he refers to the aspiration of /s/ in syllable-final position which he exemplifies with the phrase *los amigos* [loh a'migoh] 'the friends'. He also speaks of what he calls "*el jejeo*," which seems to be the aspiration of /s/ in syllable-initial position based on the example the author provides: *nosotros* [no'hotros], 'we', but the example of "*el jejeo*" he used in the survey (example 1 above) is in fact an example of insertion of "el jejeo" in syllable-initial position because orthographically there is no /s/ sound at the beginning of the word "*ocho*" 'eight'. Furthermore, in his results section he mentions that /s/ aspiration is stigmatized yet nothing is mentioned as to the social evaluation of *el jejeo*, even though the example that he used to illustrate the stigmatization of aspiration is, based on his own formulations and is an example of *jejeo* rather than aspiration.

In general, the article concluded that there are positive attitudes toward both Salvadoran and Peninsular varieties, but there is also stigma toward some features of both varieties. In the case of Salvadoran Spanish, the majority of participants agreed that the peninsular variety is "the best" variety. In contrast, even though the Peninsular variety is "the best" the majority of participants would not stop speaking the Salvadoran variety even if prohibited to do so by the Royal Spanish Academy.

This chapter has presented a brief overview of linguistic as well as social categories that have been shown to have an effect on /s/, focusing on studies conducted on /s/ variation in El Salvador. It has reported, when available, patterns of distribution the

variants of /s/. Though four different variants of /s/ have been identified, these studies have not painted a complete picture of /s/ variation. In regard to interdental /s/, in the three studies to date that identified the interdental variant of /s/, no conclusive pattern favoring its production has been determined. As such, no correlations have been established between external or internal factors that may have an effect on this variant and the meaning, if any, that it may have for its speakers. Through multivariate analysis this dissertation seeks to determine the internal and external factors that condition the use of the interdental variant in Tecapán, El Salvador. In addition, through a qualitative analysis of linguistic attitudes, it will shed light on the social meaning that this variant indexes.

Chapter 3 : Data collection methods and instruments

3.1. Introduction

This chapter provides a detailed description of methodologies and procedures that were used to conduct this investigation. I adopted and combined a variationist approach with an ethnographic approach. First, I provide a detailed description of the community and the rationale behind participant selection. Next, I briefly describe the variationist approach and justify its use in this study. Finally, I describe in detail procedures and instruments I used to collect data on /s/ variation. In a similar manner, I discuss the ethnographic approach, justifying its implementation and describing the procedures and tools used as part of such an approach.

3.2. The Community - General characteristics

In this study I examined possible correlations between internal and external factors conditioning the pronunciation of /s/ as interdental. In addition I examined the social meaning, if any, that this variant has for speakers of Tecapán, an urban municipality in a mountainous area of Usulután, which is a department⁴ in the eastern region of El Salvador. Tecapán is located approximately 60 miles east of the capital, San Salvador (see figure 3-1). According to the most recent census, in 2007, this town had 7846 residents and a total of 1056 houses. There is one police station, a local health clinic, a public library, and an educational complex that serves students from

⁴ An equivalent of a department in the U.S. context would be, roughly, a state.

kindergarten to high school. This community also has five churches (one Catholic and four Protestant), three restaurants, a football field, and a basketball court.



Figure 3-1 Map of El Salvador.

Tecapán was chosen as a research site for two reasons. First, in 2010 I carried out a pilot study on /s/ variation in this community. Based on findings from this study, I identified the pronunciation of interdental /s/ in the speech of its residents. In the present study, I seek to expand on those findings using two different approaches in order to determine patterns of occurrence of the interdental variant. The second reason for choosing Tecapán as a research site is because I am a native member of this community. As a native researcher I have established social networks that will provide access to a wide range of social groups.

3.3. Participants

Participants were selected based on a quota or judgment sample. A first step of this sampling technique is to identify in advance the types of speakers to be studied. Once participants have been identified, a portion of speakers who fit the specified categories were sought out (Milroy and Gordon, 2003: 30). In the present study I interviewed a total of 16 females and 16 males. The ages of these participants range from 9 to 81 years old. Participants were grouped according to their ages in five different categories, that is, 9-14, 15-19, 20-34, 35-54, 55+. Additionally participants were assigned to different occupation, education, and income categories based on the information they provided during the interviews. Table 3-1 shows a profile that includes participants' gender, age group, occupation, education, and income categories to which they were assigned (see table 3-4 for a definition of categories). The inclusion of participants according to gender, age group, occupation, education, and income provides data needed to answer the second research question on the effect that these extralinguistic factors have on the interdentalization of /s/.

#	Participant ID	Gender	Age Group	Occupation	Education	Income
1	CG	Male	20-34	1	3	4
2	SG	Female	15-19	1	2	4
3	JI	Male	55+	4	3	5
4	KM	Female	20-34	1	1	1
5	KS	Female	20-34	4	4	4
6	CT	Male	20-34	3	2	5
7	CE	Male	9-14	2	2	1
8	AR	Female	55+	3	3	3
9	MB	Female	15-19	2	2	4
10	AD	Male	15-19	2	2	3
11	JS	Female	9-14	2	2	2
12	AG	Female	35-54	1	3	4
13	RD	Male	9-14	2	1	5
14	SC	Female	20-34	3	3	2
15	EM	Male	9-14	2	1	1
16	LI	Female	20-34	4	4	5
17	FE	Female	20-34	1	2	1
18	DG	Male	20-34	3	4	5
19	JA	Male	20-34	2	4	3
20	MM	Female	35-54	1	3	2
21	RB	Female	35-54	1	3	3
22	NP	Female	35-54	3	3	3
23	RI	Male	35-54	3	2	3
24	RS	Male	35-54	4	4	5
25	LC	Male	35-54	1	2	4
26	WJ	Male	35-54	1	3	2
27	CM	Female	35-54	3	2	4
28	SM	Female	15-19	2	2	4
29	CR	Male	55+	1	1	1
30	IE	Female	55+	2	1	1
31	AA	Male	9-14	2	1	4
32	FM	Male	20-34	1	1	1

Table 3-1 Summary of participants according to social categories. (See definition of occupation, education, and income categories in table 3-4).

3.4. Variationist methodologies

Variationist Sociolinguistics is a branch of Sociolinguistics that studies linguistic variation and change through observation and interpretation (Tagliamonte 2012: xiv). Its goal is to understand the mechanisms which link extralinguistic factors such as age, gender, or occupation with factors internal to language, like sound changes. For example, in the introductory section of the first chapter “*Aquí no hablamos así*” I quoted a participant who said:

(1) “*Hay gente que viene pronun[s]iando má[h] la e[s]e; má[h] mali[s]io[s]o[s], nada pare[θ]ido a como uno aquí*”

“There are people who, when they come back, pronounce “s” in a more pretentious way, not even close to how one does it here”

One can observe in this sample that, in regard to /s/, there are different ways in which it was produced, namely as [s], [h], and as [θ]. Some questions that may arise by observing excerpts like this are: Who uttered such a statement? Is it more likely to be a woman or a man? What is the probable sociocultural level of this person? Why did she/he express such an opinion? What is the meaning of this variation? Is there a pattern to this variation? What was the stylistic context in which this statement was produced? Which factors correlate significantly with the production of [h] vs. [s] or [θ] vs. [s]?

The questions above can be answered by undertaking a variationist analysis. This type of analysis offers data collection tools, such as the sociolinguistic interview, and

analytical tools, such as multivariate analysis, that enabled me to discover in a systematic way the correlations that exist between specific variants of /s/ and internal and external factors.

Taking into consideration that the primary empirical task of variationist sociolinguistics is correlating the linguistic variation of a dependent variable with independent variables such as linguistic environment, style, or social categories (Chambers, 2003:18), it is appropriate to use a variationist approach in order to answer two of the research questions that guide the present study. In essence, these questions seek to find correlations between the different realizations of /s/, in particular its interdental variant [θ], and other independent factors, both linguistic and extralinguistic. Identifying the factors that determine or constrain speakers' linguistic choices enabled me to provide a more principled description of the interdental variant and determine whether this variant will be maintained in Tecapán.

Finding the correlates of variation is an important step in order to understand changes taking place in a particular variety. As Zentella (1997) comments, a quantitative analysis allows a linguist to speak with authority about the degree of variation of a particular linguistic form or practice. However, Zentella and others (e.g. Mendoza Denton 1999, 2008; Eckert 2000, 2008; Sánchez 1994, Torres 1991) also advocate for methodologies that can provide a researcher the opportunity to learn how a particular variant or a particular process may have acquired meaning among its users. In this sense, with an ethnographic approach one can account for the way in which meanings become associated with social categories or with discourse patterns revealed through a

quantitative methodological analysis. In the present study, I employ both types of methodologies in order to bridge the gap between the two types of analyses. I employ a quantitative variationist methodology to answer research questions 1 and 2, that is, what are the internal linguistic factors and the external social factors that condition [Θ]; and an ethnographic methodology (see section 3.7), to answer research question 3, specifically, the social meanings, if any, that speakers associate with the interdental variant of /s/.

3.5. Variables

This section details the independent and dependent variables that are considered in the present study. The independent variables comprise linguistic and social factors, while the dependent variable is the interdental variant of /s/ identified in the speech of the participants.

3.5.1. Independent linguistic variables

As it has been mentioned previously, external or nonlinguistic social and stylistic factors affect linguistic variation, but in addition to these, linguistic variation, specifically phonological variation, is also conditioned by internal (or linguistic) factors. According to Moreno-Fernández (2011) variationist sociolinguistic studies that have focused on the effect of contexts and the sequential elements of speech variation have shown that there are three types of conditioners (or restrictive factors) that affect linguistic variation: distributional factors, contextual factors, and functional factors.

Contextual factors refer to the linguistic elements that come before or after a variable. Distributional factors refer to the position that a variable occupies in relation to the word or to the position in the speech chain. Functional factors refer to the grammatical nature of the unit in which the variable appears. The inclusion of these factors in this investigation stems from the need to identify what is the position within a word or syllable that favors the interdental realization of /s/. It also stems from the need to identify linguistic elements that come before or after the variable /s/, in particular those that favor its interdental variant. It is also of importance to determine the grammatical nature of the element in which the interdental is more likely to occur. Therefore, the distributional, contextual, and functional factors that were considered for the present study are as listed in table 3-2. These factors have been considered as independent linguistic variables that, along with other independent social variables, may condition the realization of /s/ as interdental.

Categories of Explanatory Variables	Explanatory/Independent Variables		Descriptions
Linguistic	Distributional factors	Word Position	Initial, medial, final
		Syllable Position	Initial, final
	Contextual factors (preceding/following segments)	Pause	
		Consonant	Voiced plosive, voiceless plosive, fricative, affricate, nasal, liquid
		Vocalic	High vowel (i, u); non-high vowel (a, e, o)
		Stress	Tonic, atonic
	Functional factors	Number of syllables	Monosyllable, polysyllable
		Word type	Content word (noun, verb, adjective, adverb); function word (determiner, conjunction, pronoun, preposition)
		Morphological status	Non-morphemic, plural marker, verbal inflection

Table 3-2 Distributional, contextual, and functional factors considered in this study.

3.5.1.1. Codification of the linguistic independent variables

The present study considered the effect of 8 independent linguistic variables on the pronunciation of the interdental variant of /s/. These factors were: word position, syllable position, preceding segment, following segment, stress, number of syllables, word type, and morphological role of the interdental. The process employed to codify them is explained below.

Word position (i.e. the position of /s/ in each word) was coded as initial, medial, or final, as in *saber* ‘to know’, *aeromoza* ‘flight attendant’, and *cocoṣ* ‘coconuts’, respectively. Syllable position (i.e. the position of /s/ within each syllable) was coded as either initial or final. The preceding and following segments were coded as pause, consonant (as either voiced plosive, voiceless plosive, fricative, affricate, nasal, liquid), or vowel (as either high vowel: i, u) or non-high vowel (a, e, o). The prosodic stress of

the syllable containing /s/ was coded either as tonic as in *medicina* [meði'sina] ‘medicine’, or either as atonic as in *facilitó* [fasili'to] ‘facilitated’. Word length was coded in terms of number of syllables as either monosyllabic (e.g.: *luz* ‘power/electricity’) or polysyllabic (e.g.: *cinco* ‘five’). The words where /s/ was observed were classified as either content words (noun, verb, adjective, or adverb) or function words (determiner, conjunction, preposition, or pronoun). Finally, three codes were employed for the morphological role of the interdental. As such, it was coded as non-morphemic as in *iglesia* ‘church’ or as in *vos* ‘you’, as a plural marker as in *muchos* ‘many/a lot, or as a verbal inflection as in *aprendes* ‘you learn’

3.5.2. Independent social variables

In the last few decades it has been demonstrated that social factors affect linguistic variation in a systematic way. Social class, gender, and age are external factors that typically condition phonological variation (Labov 1972, 2006; Trudgill 1974; Silva-Corvalán 2001). For this reason, some of these factors have been considered in this investigation.

3.5.2.1. Gender

The present study explores the effect of gender on the pronunciation of interdental /s/. Through the inclusion of gender, I seek to determine whether the gender of the speaker has an effect on the production of [θ] and, if so, which gender uses it more frequently and whether it is associated with one gender or the other. In addition, I seek to

determine what effect, if any, gender differences might have on the origin and diffusion of possible linguistic changes identified through the apparent time construct.

3.5.2.2. Age

Speakers in the present investigation were grouped emically taking life stages into account. I considered preadolescents, adolescents, and adults. Based on age groups found in López Morales (1983), Cameron (2000, 2005), and in the PRESEEA (2011) guide for linguistic research, I included five age groups. Groups one and two comprised preteenagers and teenagers. Specifically, group one included speakers 9 to 14 years old as defined by Corsaro (2005) and group two included teenagers 15 to 19 years old. The next three groups were comprised by adults. I included speakers from 20 to 34 years old in group 3. Speakers 35 to 54 years old constituted group 4. Group five included speakers 55 years old and older. This group comprised individuals in late adulthood, most of whom have retired, as the retirement age in El Salvador is 55 for women and 60 for men (table 3-3 below).

Variables	Participants									
	Females					Males				
Age Group	9-14	15-19	20-34	35-54	55+	9-14	15-19	20-34	35-54	55+
# of Participants	1	3	5	5	2	4	1	5	4	2
Totals					16					16

Table 3-3 Participants' distribution according to gender and age group.

To explain possible differences across these generations I used the apparent time construct, that is, “the differential behavior of speakers in various age levels” (Labov

1972:275). This analytical construct allows the researcher to compare, at a single point in time, generational differences that in turn are used to make inferences about how, in the recent past, a change may have taken place, how it spread, and either how it reached the limits of a speech community or gave way to a regressive change (Bailey *et al* 1991; Tagliamonte 2012). As Chambers and Trudgill (1998: 151) exemplify it: "...the speech of 40 year olds today directly reflects the speech of 20 year olds twenty years ago and can thus be compared and contrasted meaningfully to the speech of 20 year olds today."

It has been observed that when viewed according to speakers' age, the increase or decrease in the frequency of use of a linguistic variable can be interpreted as a change in progress (Sankoff 2006; Tagliamonte 2012). Nevertheless, caution is advised since patterns of variation correlated with age can also be correlated with other types of change, for example, with age grading ("changes in the use of a variant that recur at a particular age in successive generations" (Chambers 2009:2000)), with generational change (regular increase in the use of a variable across age cohorts), with communal change (when a whole community is changing the way it speaks), or with a combination of these.

Though not conducted with the same methodology, data about /s/ variants reported by Canfield (1963), in part, will be used as a point of comparison to suggest whether patterns observed in the present study are the product of a stable sociolinguistic variable or a linguistic change in progress. Specifically through the use of the apparent time construct I seek to make inferences about the interdental variant of /s/ and whether or not it has undergone linguistic change, and if so, when and in what social groups such

change began.

3.5.2.3. Occupation

Originally, I had planned to include social class (determined by a combination of indicators such as occupation, education, and income) as a factor that might have an effect on interdenial /s/. However, given the complexities encountered when trying to assign a participant to a social class, I decided to considered occupation, education and income as independent individual indicators/factors for which I used the scales below (table 3-4). These have been adapted from the Codebook for the Mobilization for Youth (1962), Labov (1972), and Broce and Torres Cacoullos (2003).

Occupational scale	
Code	Category
1	Farm worker; sales, security guard, foreman, maintenance, laborer, unemployed, housewife
2	Maid, police, clerk at a family owned business, student
3	Artisan, business owner, clerk at a shopping center
4	Professional, manager, civil servant
Educational scale	
Code	Category
1	Some/ incomplete grade school, no schooling
2	Completed grade school; high school incomplete.
3	High school graduate and/or technical school (short career); some college
4	Completed college
Income scale	
Code	Category
1	Less than the minimum wage
2	Minimum wage (\$117.58)
3	Less than the national median but above the minimum wage
4	National median (\$270.69)
5	More than the national median

Table 3-4 Criteria used to assign participants to social categories of occupation, education, and income

The occupational scale has been adapted taking into account the linguistic market (Sankoff and Laberge 1978). As Eckert (1997) mentions, it has been defined primarily in terms of participation in educational and commercial institutions and in the social networks that support them (Sankoff and Laberge 1978; Broce and Torres Cacoullas, 2002). Participation in institutions may have an effect on the speech of those who participate in them and may determine or influence the type of speech a person uses. Therefore, certain professions result in increased awareness of the importance of the “standard” language. Taking this into account, the occupational scale is constructed so that, for example, a bank teller would receive more points in comparison with farm workers given the fact that the former would have more probabilities of using the “standard” language at work than the latter. Table 3-5 below offers a summary of the number of participants that were assigned to each occupational category.

Category		# of Participants
1	Farm worker; sales, security guard, foreman, maintenance, laborer, unemployed, housewife	11
2	Maid, police, clerk at a family owned business, student	10
3	Artisan, business owner, clerk at a shopping center	7
4	Professional, manager, civil servant	4

Table 3-5 Number of participants assigned to each occupational category.

3.5.2.4. Education

The educational scale takes into account four different levels of attainment (1-4), one being the lowest and four being the highest. Speakers were coded in the following way: those with either no schooling or who have completed only some grade school were

coded as 1; speakers who completed grade school but did not complete high school were coded as 2; those who completed high school and/or technical school received a coding of 3; finally, those who completed college and/or have attended college were coded as category 4. A summary of the number of speakers per each educational category is presented below (table 3-6).

Category	Education	# of Participants
1	Some/ incomplete grade school, no schooling	7
2	Completed grade school; high school incomplete.	11
3	High school graduate and/or technical school; some college	9
4	Completed college	5

Table 3-6 Number of participants assigned to each educational category.

3.5.2.5. Income

The income scale comprised five different income categories based on information published by the Ministry of Economy and on data published by the Salvadoran census office. Such categories were determined as follows: speakers who earn less than the minimum wage were coded as 1; speakers earning the minimum wage (\$117.58) were coded as category 2; speakers earning below the national median income but above the minimum wage were assigned code 3; code 4 was assigned to speakers earning \$270.69 or the national median income; finally, code five was assigned to speakers earning above the national median income. The income category of the youngest age groups was determined by their parents' income. Table 3-7 shows the number of participants that were assigned to each income category

Category	Income	# of Participants
1	Less than the minimum wage	7
2	Minimum wage (\$117.58)	4
3	Less than the national median but above the minimum wage	6
4	National median (\$270.69)	9
5	More than the national median	6

Table 3-7 Number of participants assigned to each income category.

3.5.2.6. Style

In addition to the social variables mentioned in the previous section, the present study considered style as a potential factor conditioning /s/ variation in Salvadoran Spanish. I use style in terms of attention paid to speech, and I considered the concepts of casual vs. careful speech as parameters to study stylistic variation in the dialect under study. According to Labov (1972: 79), in careful speech “only one speaking style normally occurs”, but in casual speech speakers “pay much less attention” to their own speech. For example, speakers might use what they consider “correct” speech when reading in front of people, but they might use more relaxed or vernacular forms when talking with friends.

The objective of considering style as a factor that may affect variation is to “obtain a range of behaviors (speech styles) within the individual interview” (Labov, 2006: 59). To obtain data on stylistic variation, Labov (1972, 2006) designed a set of interviews that used different contexts to trace the shift of style with increasing formality along a single dimension continuum with casual speech at one end and minimal pairs (expected to be the most formal style of all) at the other end. The styles in the middle of Labov’s continuum were denoted as careful style, reading, and word lists. The present

study, however, will only consider three of these contexts: casual, careful, and reading style.

The inclusion of style as a factor that may influence linguistic variation in the Spanish of the community under study stems from the fact that speakers shift their speech style according to their needs or purposes (Schilling, 2013). Just as there are different types of speech styles, there are also different approaches to study it, examples being the audience design and third wave/speaker design. The audience design holds that “style shifting is conditioned primarily by one’s audience” (Schilling 2013: 141). It is expected that speakers show linguistic convergence or divergence depending on whether they wish to be associated or distance themselves from the listener. The third wave/speaker design approach focuses on the social meaning of linguistic variants rather than on correlations between variants and social groups (Schilling 2013: 157). The use of a particular variant may be used by speakers to index, for example, regionality, toughness, or honesty, or it could also be associated with lack of education, rudeness, and unfriendliness. However, for the purposes of an initial study such as this one, the three stylistic contexts, (careful, casual, and reading) are a starting point to determine whether variation occurs and what variants speakers use most in informal contexts vs. those context in which more attention is paid to speech.

To account for speech style I extracted tokens of /s/ from a sociolinguistic interview, from an open-ended questionnaire, and from a reading task. The formality of these tasks was expected to increase from a less formal style in the sociolinguistic interview to a more careful style when performing the reading task. As suggested in

Schilling (2013), topics incorporated in the sociolinguistic interview were intended to focus attention away from speech while the sociolinguistic questionnaire and the reading task focused attention on speech. For example, as part of the sociolinguistic interview participants were encouraged to speak about topics of interest or about topics that were meaningful to them so that the speech produced was as spontaneous as possible. With the open-ended questionnaire, formality was expected to increase since participants were asked specific questions about the Spanish they spoke, for example, their perceptions about the pronunciation of /s/. Finally, in the reading task it was expected that attention to speech was going to be greater than in the previous two tasks because speakers tend to view it as needing to be “correct” (Schilling, 2013) and most likely the “standard” variant of /s/ was going to be produced.

In relationship to other variables, it has been found that style intersects with social class and gender. For example, women style-shift more than men do; also, people tend to use higher prestige variants in formal styles and lower prestige variants in informal styles (Eckert, 2000; Tagliamonte, 2012). Both social and stylistic variables were included in this investigation in an effort to determine if there is a correlation between these and the speech of the community under study.

3.5.3. Dependent variable

In chapter two it was mentioned that in Salvadoran Spanish there are four different realizations of /s/: (1) as a predorsoalveolar voiceless fricative [s] as in the word *eso* ['eso] ‘that’; (2) a glottal voiceless fricative or aspirated [h] as in the word *dos* ['doh] ‘two’; (3) elision [Ø] as in the word *tres* in *tres gatos* ['treØ 'gatoh] ‘three cats’; and (4)

interdental [θ] as in *casamiento* [kaθa'miento] ‘marriage’. These different forms of pronouncing the same sound are variants of the linguistic variable /s/. In the quantitative analysis, the interdental [θ] was considered the dependent variable.

3.5.3.1. Codification of the dependent variable

Once interviews were recorded, I transcribed them orthographically, but each token of /s/ was transcribed with the corresponding phonetic symbol [s], [h], [θ], or [∅] as articulated by each speaker. The transcription process started 5 minutes into each interview. As a native Spanish speaker of El Salvador I used my knowledge of the language and the knowledge I have acquired as a linguist to discriminate among the different pronunciations of /s/. In addition, I submitted samples to other speakers (native and non-native) and/or to linguists for an assessment of the transcriptions. I also relied on the acoustic analysis of the first 20 tokens of /s/ using spectrograms, waveforms, and spectra generated by the acoustic software *Praat* (Boersma and David Weenink, 2015) to ensure that tokens were being assigned to the appropriate category. This analysis was also conducted in order to identify the acoustic properties that characterize interdental /s/ that make it different from the other three pronunciations of /s/.

The presence of an [s], [θ], or [h] was determined by the onset and offset of frication observed in the waveform. A token was segmented as [s] if strong turbulence situated in the upper frequencies of the spectrogram was observed. Weak turbulence located below 8,000 Hz was considered an instance of the interdental. Glottalized weak turbulence of low frequency was considered [h]. Finally, the absence of frication was

considered as the elided variant [Ø]. After the acoustic examination of the first 20 tokens per participant, a total of 264 tokens of /s/ were listened to, segmented, and then assigned to one of four categories: [s], [θ], [h], [Ø]. Nonetheless, visual examination of spectrograms and waveforms was carried out in unclear cases.

3.5.4.2 Quantitative analysis

This section explains the statistical analysis performed in order to determine which linguistic and social factors, if any, had an effect on the pronunciation of /s/ as interdental. For this, I ran a mixed effects model using the *glmer*⁵ function in the *lme4*⁶ package for R. The mixed effects model estimates the effect of one or multiple explanatory (dependent) variables on a response (dependent) variable. According to Tagliamonte (2012, p. 141) these models are appropriate as they allow the exploration of data with different types of factor groups (fixed and random). At the same time they allow the comparison and contrasting of factor groups (variables) using interaction terms within the same model. In addition to the mixed effects model, pairwise comparisons were also conducted in order to determine whether or not there were significant differences among the different levels of the factor groups included in a model. These comparisons were run using the *lsmeans* function in the *lsmeans*⁷ package for R

Three different models were run. One model included the linguistic variables only (word position, syllable position, preceding segment, following segment, stress, number

⁵ Generalized Linear Mixed-Effects Models

⁶ Linear Mixed-Effects Models using 'Eigen' and S4

⁷ Least-Squares Means

of syllables, word type, and morphological role). Each variable had different levels. For example, table 3-8 shows that the variable (factor group) word position comprised three levels, namely: initial, medial, and final. Several levels were excluded from the preceding and following factor groups in this model. Specifically, voiced plosive and fricative consonants from the preceding segment factor group, and, fricative, affricate, voiced plosive, liquid, and nasal consonants from the following segment factor group. These segments were excluded because the distribution analysis revealed that the interdental did not occur before or after these segments. A second model included the social variables only (gender, age group, occupation, education, income). The third model included stylistic factors only (casual, formal, reading task).

Categories of Explanatory Variables	Explanatory/Independent Variables		Descriptions
Linguistic	Distributional factors	Word Position	Initial, medial, final
		Syllable Position	Initial, final
	Contextual factors (preceding/following segments)	Pause	
		Consonant	Voiced plosive, voiceless plosive, fricative, affricate, nasal, liquid
		Vocalic	High vowel (i, u); non-high vowel (a, e, o)
		Stress	Tonic, atonic
	Functional factors	Number of syllables	Monosyllable, polysyllable
		Word type	Content word (noun, verb, adjective, adverb); function word (determiner, conjunction, pronoun, preposition)
		Morphological status	Non-morphemic, plural marker, verbal inflection

Table 3-8 Levels of linguistic independent factors.

The dependent (response) variable was converted from a four level variable [s, Θ , h, \emptyset] to a binary variable through the combination of [s, h, \emptyset] as 0 and [Θ] as 1. The objective was to determine which factors had an effect exclusively on [Θ]. To determine which linguistic and social factors influenced the production of [Θ], I analyzed a total of 9,074 tokens of different realizations of /s/, featuring 32 speakers. Each speaker provided an average of 284 tokens. After the statistical analysis, I proceeded to interpret results.

3.6. Instruments

The data-collection tools I employed were aimed at gathering information to answer the research questions stated in the first chapter. The first and second questions seek to reveal linguistic and extralinguistic factors that affect the interdentalization of /s/. The third question seeks to reveal linguistic attitudes of speakers toward the interdental variant. To gather the data to answer these questions I used the following instruments: a sociolinguistic interview, a sociolinguistic questionnaire, a map, an open-ended questionnaire, and a reading task. The order in which these were conducted is illustrated below in figure 3-2. This figure also shows the instruments used along a stylistic continuum.

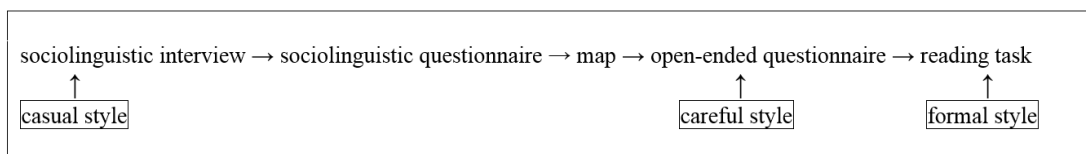


Figure 3-2 Instruments used to collect data for this this investigation along a stylistic continuum.

These instruments were used and grouped according to the goals of the research questions. One set of instruments was used for determining patterns of /s/ variation, another set for determining stylistic variation, and a third set of instruments was used for determining linguistic attitudes.

3.6.1. Instruments for determining patterns of /s/ variation

The instruments I used to collect information to answer the first and second research questions were: the sociolinguistic interview, the demographic section of the sociolinguistic questionnaire, and the reading task. In what follows, I provide an explanation of what these are and an explanation of how I employed them.

3.6.1.1. The sociolinguistic interview

Speech recordings obtained through the sociolinguistic interview were used primarily to answer the first and second research questions. The objective of the first question was to discover internal linguistic factors such as word/syllable position and preceding and/or following phonological segments underlying interdental /s/. The objective of the second research question was to discover social factors such as gender and/or age group that had an effect on the pronunciation of interdental /s/. The sociolinguistic interview is the main data-collection tool within variationist sociolinguistics. Its goal is to elicit speech as spontaneous as possible so that the speech produced by speakers is close to everyday language. (Schilling, 2013, p. 93-94).

The content of the questions included in this interview was focused on topics of interest to the community of study. Based on previous experience while conducting a pilot study, I observed that some of the topics of interest to the majority of participants were of a political and social nature. Polarizations due to political ideologies, national elections, and violence generated by gangs, for example, were among the most talked about topics. These sets of questions were hierarchically structured and progressed from general to more specific and personal ones in order to elicit narratives of personal experience, for example I asked *¿Ha sido víctima de un robo?* ‘Have you been the victim of a robbery?’

The topics above were incorporated in an interview guide in the form of open-ended questions as a way to start a discussion, these questions are presented below:

General questions

1- Para empezar me gustaría que me contara sobre costumbres o tradiciones del pueblo que antes se practicaban pero ahora ya no. ¿Cómo ha sido el cambio?

Can you tell me something about customs and/or traditions that have been forgotten?
How have they changed?

Polarization due to political ideologies

2. Si había alguna actividad local ¿Quién/es la organizaban? ¿Asistía la mayoría de la gente? ¿Era este un pueblo unido o dividido? ¿Por qué?

Who used to participate in the organization of local activities? Who used to attend?
Was the town united or divided? Why?

Government, Violence, and Crime

3. Y antes ¿Era seguro salir de noche durante celebraciones o fiestas? ¿Cómo era el ambiente?

During the time you are describing was it safe to go out at night? What was it like to go out at night?

4. Y ahora, ¿Se siente segura/o? ¿Qué piensa del trabajo que está haciendo el gobierno/ la policía/el ejército para combatir la violencia y el crimen?

And today, do you feel safe? What do you think of the work that the government/the police/the armed forces are doing to fight violence and crime?

5. ¿Qué tipo de precauciones tiene que tomar si tiene que salir?

What type of preventive measure do you take when you go out?

6. *¿Cómo le ha afectado a usted y a su familia toda esta situación de violencia?*
In what ways have you and your family been affected by all this violence?

7. *¿Ha sido víctima de algún robo?/ ¿Ha presenciado un robo?*
Have you been the victim of a robbery? Have you witnessed a robbery?

8. *Cambiando de tema, ¿Dónde estaba usted cuando pasó el terremoto del 2001? ¿Tuvo que dormir afuera?*
On a different topic, where were you during the 2001 earthquake? Did you have to sleep outside?

As illustrated above, question 1 asked in general about changes participants may have seen happen in the community. Question 5 on the other hand, asked participants how changes that have resulted in violence and crime had affected them in their personal lives. Taking into consideration the reality of this community, I planned for these questions to serve as conversations starters, but, participants were also encouraged to talk about different topics of interest to them in order to elicit a speech style as casual as possible.

The main topic of the questions I asked speakers from the youngest two age groups revolved around school. Questions for these groups were adapted from Tagliamonte (2006) and followed the same hierarchical structure as the questions that were asked to older age groups; that is from a general level to a more specific and personal one (see Appendix A – The sociolinguistic interview). Interviews were conducted at each participant's home. My membership in this speech community facilitated access to participants as well as access to the privacy of their homes. I believe that they felt relatively comfortable during the interview and, based on my knowledge of the community and my ethnographic observations, that they spoke in a way that was representative of their everyday speech.

3.6.1.2. Sociolinguistic questionnaire

The use of a sociolinguistic questionnaire (see Appendix B - Sociolinguistic questionnaire) had two purposes. One was to elicit demographic information such as age, level of education, and income. A second purpose was to elicit participants' assessment of the place/location where they live to provide information needed to answer the third research question. This added to the general information collected about the location obtained from printed materials as well as from observation.

Within a continuum that went from casual to careful, the data collected through the sociolinguistic questionnaire was considered as more careful than the interview, yet less careful than the reading task. In terms of style, then, data from this questionnaire was used to supplement the sociolinguistic interviews since it can reveal which forms participants might use in a context other than the interview and/or the reading task (Schilling 2013).

3.6.1.3. Reading task

The sociolinguistic interview and the questionnaire were followed by a reading task (see Appendix C – Reading task). The purpose of this task was to obtain a speech style more careful than the samples obtained through the sociolinguistic interview and those collected through the sociolinguistic questionnaire, the map task, and the open-ended questionnaire.

Participants were asked to read a short version of a Salvadoran folk tale. This version was adapted so that it included several occurrences of the variable /s/ in all the

linguistic contexts of interest to this study (e.g.: word/syllable position, and preceding and following phonological segment). The objective was to measure the speaker's use of /s/ and particularly, its interdental variant, when reading a passage. There was only one male participant in the 20-34 age group who could not perform this task because he could not read or write. Therefore, he was excluded from the stylistic analysis.

3.6.2. Instruments for determining language attitudes

In addition to determining pronunciation patterns of interdental /s/, it was also of importance to determine speakers' attitudes toward this pronunciation. As stated in the first chapter, one of the questions I seek to answer is whether or not speakers perceive the interdental variant of /s/. If they do, I further ask: what social meanings do speakers associate with it. I use the term social meaning in the sense found in Eckert (2000, 2005, 2012) to refer to meanings indexed by speakers through linguistic variation. In this case such linguistic variation will be expressed through the presence or absence of interdental /s/ in participant's speech.

I answered the questions formulated above using methodological procedures employed in language attitude studies as suggested by Garret (2010). This author recommends the use of a multiple-method program of research as it offers an opportunity to show how different methods can complement each other (Garret 2010:201). The multiplicity of methodologies consists of combining a direct approach and an indirect approach. Within the former, participants are invited to articulate explicitly what their attitudes are toward a language phenomenon, while within the latter, participants are not

aware of exactly what they are rating (Garret 2010). Though the combination of direct and indirect methods would provide a richer picture of language attitudes in Tecapán, in the present study I explored attitudes only through the implementation of methodologies derived from the direct approach (Garret 2010).

As with the other instruments used, I recorded respondents' answers and comments using a *Zoom H4 Handy* digital recorder, I also took notes on the answers and comments made by participants which in turn aided in the identification of different themes around the pronunciation of /s/ and its interdental variant that emerged during the conversation.

3.6.2.1. Map and open-ended questionnaire

In an attempt to determine the attitudes that Salvadorans hold toward their own variety, I employed a modification of direct procedures followed by Price et al. (1983) and Preston (2010). In carrying out this part of my research, I used two tasks: the first involved the use of a map and the second consisted of answering an open-ended questionnaire (Appendix D - Language attitudes). Participants were given a map of El Salvador and were asked to mention or to draw boundaries where they felt people spoke similarly to them as well as where they felt people spoke differently from them. As part of the second task, participants were asked a series of open-ended questions intended to elicit their attitudes toward the Spanish spoken in El Salvador, specifically, their attitudes about the interdental pronunciation of /s/. While conducting this task, I asked speakers to give explicit assessments about the variety of Spanish they speak, for example “¿Cómo es

el español que se habla aquí en El Salvador ‘How would you evaluate the Spanish spoken here in El Salvador?’. I also used these tools to explore whether or not speakers perceive speech differences in regard to interdental /s/ in their own speech and in the speech of others. For this purpose, one of the questions I asked was: *¿Cómo habla la gente aquí en Tecapán? ¿Y usted habla así como todos los tecapanecos?* ‘How do people speak here in Tecapán? Do you speak like other people do?’

Keeping in mind Irvine’s (2001) comment that even though “participants are not entirely objective observers of each other’s behavior, their own acts are influenced by their perceptions and interpretations of those behaviors”, through these tasks, the map and open-ended questions, I expected to find the dialect regions that were part of Salvadoran’s imaginary and their ideas or beliefs about the Spanish spoken in those areas. Through all these tasks I sought to discover whether or not the interdental variant and its speakers were stigmatized in the community where the research was conducted.

3.6.2.2. Qualitative analysis

The qualitative analysis of speakers’ linguistic attitudes allowed me to respond to research question three through which I sought to discover the social meaning speakers associate with the interdental variant of /s/. This analysis was based on information collected through the open-ended questionnaire. I expected that the answers given by participants would reveal their beliefs and attitudes toward the pronunciation of interdental /s/. These answers in turn would enrich interpretations or conclusions drawn

from results generated through the quantitative analysis of the linguistic, social, and stylistic variables.

The data gathered for the study of linguistic attitudes was managed, coded, and analyzed with QDA Miner 4, a qualitative data analysis software. Questions from the open-ended questionnaire were grouped under four primary topics:

- 1- Information about location
- 2- Social networks
- 3- Education
- 4- Linguistic attitudes

Once participant's responses were transcribed, I read through the transcripts twice in order to find words or short phrases that emerged in the data which at the same time would help identify beliefs and attitudes toward [θ]. Then, I started coding to analyze the data. Two participants were excluded from this analysis, a 9 year old female and a 10 year old male. They were excluded because they answered "I do not know" when asked questions from this questionnaire.

3.7. Ethnographic methodologies

The research questions guiding this investigation sought to identify patterns of variation in the use of the interdental variant of /s/ as well as its social meaning in the community. In addition to a variationist analysis of the interdental, an important aspect of this investigation was to discover the meanings indexed by the absence or presence of the interdental /s/ in the speech this community.

One way of discovering social meanings is through the implementation of ethnographic methodologies. If ethnography is the study of culture, and if it “is based on the premise that what is distinctive about humans is the tendency to see things (objects, people, events) as having meaning” (Johnston, 2000: 82) then, ethnography can enable the researcher to determine the meaning(s) speakers intend to communicate through the absence or presence of a salient variant, such as the interdental, in their speech.

3.7.1. Participant-Observation

I employed participant observation as the main ethnographic methodology to help me better understand interdental /s/ and its social meaning. These observations helped determine elements of speakers’ lives that were significant based on local social realities. In particular, this information helped me determine whether or not the preconceived social categories I had considered were valid external factors that exert an effect on the linguistic choices speakers make. In addition, this technique allowed me to hear speakers using the language in their everyday lives and at the same time it helped me notice discrepancies between what speakers may have said during interviews and what they actually use in their everyday lives.

Being a researcher native to the community provided me with certain advantages. I already had established social networks through which I could recruit participants. Furthermore, I share lifelong relationships with many members of these networks. I had previously worked closely with young people and adults organizing reforestation campaigns. I had also worked closely with residents, and with civil and religious

authorities as the head of the local library founding committee. As such, these pre-established relationships helped me overcome the effects of the observer's paradox since there were already relationships in place and in turn enabled me to obtain spontaneous samples of speech.

I was aware that being a native researcher resulted in disadvantages as well. For example, my closeness to community members might also be seen as a confounding factor that might interfere with my judgments about the community as well as lead to a lack of objectivity. In an effort to overcome possible bias, I used my knowledge of the culture, my knowledge as a linguist and as an ethnographer, the experience gained while conducting a pilot study, and my advisor's input as tools that enabled me to draw conclusions and elaborate judgments as objectively as possible.

My knowledge of the community enriched the quality of my linguistic and ethnographic work in Tecapán. At the same time, I expected that my linguistic and ethnographic knowledge would shed new light on linguistic and cultural aspects of my own community that I may have taken for granted or that I had not been aware of.

3.7.2. Fieldnotes

A fundamental component of my work as participant observer entailed writing fieldnotes. The purpose of fieldnotes was to record important information about participants as well as other details not included or accounted for in the interviews and/or tasks. For example, in my fieldnotes I included gestures or reactions displayed while having a conversation or while answering a question as suggested by Emerson *et al.*

(2011). Overall, fieldnotes aided in documenting information that was used to understand and interpret how certain social practices became meaningful in the community under study.

Chapter 4 . Results

In this chapter I present the results of the analyses conducted in order to answer research questions 1 and 2 through which I seek to determine which linguistic, social, and stylistic factors, if any, have a significant effect on the pronunciation of /s/ as [θ]. I also present the result of the qualitative analysis of the data in order to answer the third research question, which sought to discover speakers' motivations in relation to the use of the interdental. To report this information, this chapter is divided into several sections. Section 4.1 presents the distribution of the interdental across all linguistic factors considered. Section 4.2 reports which factors had a statistically significant effect on the interdental. Sections 4.3 and 4.4 present, respectively, the distribution of /s/ across all social categories considered and the social factors which significantly affect [θ]. Section 4.5, presents the distribution and effect of style on the interdental. Finally, section 4.6 presents the results of the qualitative analysis of language attitudes.

4.1. Distribution of linguistic factors

4.1.1. Distribution of /s/ in the present study

The 9074 tokens of /s/ considered for this analysis were extracted from the sociolinguistic interview. Table 4-1 shows the overall distribution of /s/ allophones in the Spanish of the community where this research was conducted. In general, the most produced variant is the aspirated [h] with a total of 3,958 tokens or 43.69% of the occurrences. The interdental is the second most produced variant as it follows the

aspirated variant with 3,251 tokens or 35.76% of the total occurrences. The sibilant along with the elided variant are the least produced with 11.45% (N=1037) and 9.01% (N=828) of the occurrences respectively.

	[s]	[θ]	[h]	[∅]
Count	1037	3251	3958	828
%	11.45	35.76	43.69	9.01

Table 4-1 Overall distribution of /s/

4.1.2. Distribution of [θ] according to word position

In general, when compared to all other variants of /s/ across word position, the interdental is the most common variant in word initial (67%) and word medial position (53%). The interdental is, however, the least produced variant in word final position (1%) (table 4-2).

	Word position		
	Initial	Medial	Final
[s]	19 (N=339)	16 (N=599)	3 (N=99)
[θ]	67 (N=1175)	53 (N=2033)	1 (N=43)
[h]	14 (N=240)	30 (N=1149)	73 (N=2560)
[∅]	0 (N=0)	1 (N=39)	23 (N=789)

Table 4-2 Overall distribution of /s/ across word position (%).

When examining the interdental tokens only, table 4-3 shows that this variant was found in all three word positions. Most of these tokens were observed in initial and in medial position but the great majority occurred in word-medial position with more than half of

the occurrences (62.22%, N=2033). In addition, 36.46% of interdentalals occurred in word-initial position. The least number of the [θ] was observed in word-final position with 43 tokens accounting for only 1.33% of the occurrences of [θ] according to word position. Example 1a below shows the interdental in word-initial and in word-final position. Example 1b shows the interdental in word medial-position.

Word position	Initial	Medial	Final	Total
[θ] Count	1175	2033	43	3251
%	36.46	62.22	1.33	100

Table 4-3 Distribution of [θ] by word position.

(1) (a) *...la gente trabaja y θohtiene el paíθ...* (CT, 20-34)

...people work and sustain the country...

(b) *... me da curioθidaθ* (CG, 20-34)

...I feel curiosity...

4.1.3. Distribution of [θ] according to syllable position (SP)

	Syllable position	
	Initial	Final
[s]	20 (N=881)	3 (N=156)
[θ]	71 (N= 3194)	1 (N=57)
[h]	10 (N= 438)	77 (N=3520)
[∅]	0 (N= 0)	18 (N= 828)

Table 4-4 Overall distribution of /s/ across syllable position (%).

The overall distribution of /s/ across syllable position (table 4-4) shows that [θ] is the most common variant in syllable initial position (71%), yet, it is the least produced token in syllable final position (1%). When examining only the [θ] variant, table 4-5, shows that the overwhelming majority of [θ] tokens were found in syllable-initial position with a total of 3194 tokens accounting for 98.18% of the occurrences. The words *sentía* ‘would feel’, *salía* ‘would go out’, *sin* ‘without’, *preocupación* ‘to worry’ in example 2a below show [θ] in syllable-initial position. In syllable-final position there were only 57 (1.82) tokens found. The word *antes* ‘before’ in example 2a show the interdental in syllable-final position.

Syllable position	Initial	Final
[θ] Count	3194	57
%	98.18	1.82

Table 4-5 Distribution of [θ] by syllable position.

- (2) (a)...*pueh anteθ...me θentía mejor porque uno θalía θin miedo θin preocupaθión...* (AR, 55+)
 ...before... I would feel better because one could go out without being afraid or preoccupied...

4.1.4. Distribution of [θ] according to preceding and following segments

When compared to all other variants of /s/, table 4-6 shows that the interdental is more frequently observed when the preceding segment is a nasal (75%) or a liquid (73%) consonant; before a pause (61%); and to a lesser extent when the preceding segment is a vowel (43% high vowel and 30% non-high).

	Preceding segment							
	Voiced plosive	Voiceless plosive	Fricative	Nasal	Liquid	Pause	High vowel	Non-high vowel
[s]	100 (N=5)	57 (N=12)	100 (N=4)	21 (N=119)	27 (N=85)	26 (N=35)	16 (N=152)	9 (N=625)
[θ]	0	43 (N=9)	0	75 (N=430)	73 (N=228)	61 (N=83)	43 (N=414)	30 (N=2087)
[h]	0	0	0	4 (N=22)	0	14 (N=19)	37 (N=357)	50 (N=3559)
[∅]	0	0	0	1 (N=5)	0	0	4 (N=35)	11 (N=788)

Table 4-6 Distribution of /s/ according to preceding segment.

In regard to the interdental only, as shown in table 4-7, the three most common segments that precede [θ] are non-high vowels ‘a, e, o’, nasal consonants as well as high vowels (i, u) with 64.20% (N= 2087); 13.23% (N= 430); and 12.73% (N= 414) respectively. The words *decía, casada* (examples 3a-3b) show cases of the interdental preceded by the non-high vowels ‘e, a’. The word *entonces* (example 3c) is a case of a nasal consonant preceding the interdental; and the words *puso* and *policía* in example 3d show the interdental preceded by high vowels. Table 4-7 also shows, to a lesser extent, that the interdental variant of /s/ also occurs when preceded by liquids, by a pause and by voiceless plosives, but it was never observed when preceded by voiced plosives and/or fricatives. For this reason these segments were excluded from the final statistical analysis.

	Preceding segment								
	Voiced plosive	Voiceless plosive	Fricative	Nasal	Liquid	Pause	High vowel	Non-high vowel	Total
[θ] Count	0	9	0	430	228	83	414	2087	3251
%	0.00	0.28	0.00	13.23	7.01	2.55	12.73	64.20	100.00

Table 4-7 Distribution of [θ] according to preceding segment.

(3) (a)...*me deθía*... (AR, 55+)

...she would tell me...

(b)...*no θé cuántoh añoh tiene de caθada*... (IE, 55+)

...I do not know how many years she has been married...

(c)...*entonθeh... a mí no me guhta.* (AR, 34-54)

...so... I do not like it.

(d)... *ella θe puθo a llorar y llamó a la poliθía.* (WJ, 34-54)

...she started crying and [then] she called the police.

In regard to the interdental and the following segment, table 4-8 shows that in comparison with the other variants of /s/, [θ] is most commonly observed before vowels, both, high (64%) and non-high (57%). When examining the interdental only, table 4-9 shows a similar trend where the two most common segments following [θ] are non-high vowels with 61.5% (N= 2000) and high vowels with 37.3% (N= 1214). In addition to occurring when followed by vowels, the interdental also occurs when followed by a pause 1% (N= 31) of the time. Table 4-9 also shows that, in regard to consonants, the interdental variant never occurred when the following segments were voiced plosives, affricates, fricatives, liquids, and/or nasals. These segments were also excluded from the statistical analysis.

	Following segment								
	Voiced plosive	Voiceless plosive	Fricative	Affricate	Nasal	Liquid	Pause	High vowel	Non-high vowel
[s]	3 (N=16)	4 (N=74)	1 (N=4)	0	3 (N=7)	1 (N=1)	7 (N=45)	19 (N=364)	15 (N=526)
[θ]	0	0.5 (N=6)	0	0	0	0	5 (N=31)	64 (N=1214)	57 (N=2000)
[h]	9 (N=49)	94 (N=1644)	15 (N=44)	100 (N=6)	93 (N=229)	75 (N=130)	84 (N=569)	17 (N=314)	28 (N=973)
[∅]	88 (N=457)	1.5 (N=17)	84 (N=249)	0	4 (N=9)	24 (N=42)	5 (N=34)	0.1 (N=2)	1 (N=18)

Table 4-8 Distribution of /s/ according to following segment.

	Following segment									
	Voiced plosive	Voiceless plosive	Fricative	Affricate	Nasal	Liquid	Pause	High vowel	Non-high vowel	Total
[θ] Count	0	6	0	0	0	0	31	1214	2000	3251
%	0.0	0.2	0.0	0.0	0.0	0.0	1.0	37.3	61.5	100.0

Table 4-9 Distribution of [θ] according to following segment.

In comparison with all other variants of /s/, in word initial position the interdental is most commonly preceded by a pause (61%) and followed by vowels. In medial position [θ] is most commonly observed when preceded by nasal consonants (54%) of the time and followed by vowels. Though occurring very rarely in word final position, the interdental is generally preceded by vowels and followed by a pause and by voiceless plosives to a lesser extent.

Preceding segment	Word Position											
	[s]			[θ]			[h]			[Ø]		
	Initial	Medial	Final	Initial	Medial	Final	Initial	Medial	Final	Initial	Medial	Final
Voiced plosives	0	100% (N=5)	0	0	0	0	0	0	0	0	0	0
Voiceless plosives	0	57% (N=12)	0	0	43% (N=9)	0	0	0	0	0	0	0
Fricatives	75% (N=3)	0	25% (N=1)	0	0	0	0	0	0	0	0	0
Nasals	7.4% (N=42)	13% (N=76)	0.2% (N=1)	20% (N=119)	54% (N=311)	0	1% (N=6)	3% (N=15)	0.2% (N=1)	0	0.5% (N=3)	0.3% (N=2)
Liquids	9% (N=28)	18% (N=56)	0.31% (N=1)	29% (N=90)	44% (N=138)	0	0	0	0.3% (N=1)	0	0	0
Pause	25% (N=35)	0	0	61% (N=83)	0	0	12% (N=17)	0	1% (N=2)	0	0	0
High vowel	3% (N=31)	11% (N=110)	1.1% (N=11)	8% (N=77)	34% (N=327)	1% (N=10)	1% (N=11)	28% (N=266)	8% (N=80)	0	0.1% (N=1)	4% (N=34)
Non-high vowel	3% (N=200)	5% (N=340)	1.2% (N=85)	11% (N=806)	18% (N=248)	0.5% (N=33)	3% (N=215)	12% (N=868)	35% (N=2476)	0	0.5% (N=35)	10% (N=753)

Table 4-10 Distribution of the preceding segment of /s/ across word position.

Following Segment	Word Position											
	[s]			[θ]			[h]			[Ø]		
	Initial	Medial	Final	Initial	Medial	Final	Initial	Medial	Final	Initial	Medial	Final
Voiced plosives	0	1% (N=4)	2% (N=12)	0	0	0	0	1% (N=5)	8% (N=44)	0	4% (N=22)	84% (N=436)
Voiceless plosives	0	3% (N=59)	1% (N=15)	0	0	0.3% (N=6)	0.2% (N=4)	52% (N=898)	43% (N=742)	0	0.2% (N=3)	0.8% (N=14)
Fricatives	0.4% (N=1)	1% (N=2)	0.3% (N=1)	0	0	0	1% (N=2)	1% (N=4)	13% (N=38)	0	4% (N=13)	79% (N=236)
Africates	0	0	0	0	0	0	0	0	100% (N=6)	0	0	0
Nasals	0	1% (N=2)	2% (N=5)	0	0	0	0	15% (N=35)	79% (N=194)	0	0	3% (N=8)
Liquids	0	0	1% (N=1)	0	0	0	0	3% (N=6)	71% (N=123)	0	0	25% (N=41)
Pause	1% (N=5)	0	6% (N=40)	0	0	4% (N=30)	0	0	84% (N=568)	0	0	5% (N=34)
High vowel	1% (N=138)	12% (N=218)	0.4% (N=8)	21% (N=370)	46% (N=841)	0.1% (N=3)	2% (N=36)	2% (N=39)	15% (N=239)	0	0	0.1% (N=2)
Non-high vowel	3% (N=195)	9% (N=314)	1% (N=17)	23% (N=805)	34% (N=1192)	0.1% (N=4)	6% (N=205)	5% (N=162)	18% (N=606)	0	0	1% (N=18)

Table 4-11 Distribution of the following segment of /s/ across word position.

When the interdental is examined according to the preceding and following segments across word position (initial, medial, final), table 4-12 shows that in word initial position the interdental tends to be preceded by a word ending in a non-high vowel 69%, by a word ending in a nasal 10%, or by a word ending in a liquid 8%. According to table 4-13, the most frequent segments that follow [θ] in this position are vowels, both, high (31.49%) and non-high (68.51%). Examples 4a-4b show the interdental preceded and followed by non-high vowels. Example 4c show the interdental preceded by a word ending in a nasal consonant and followed by a high vowel.

(4) (a)...eθe pihto... (IE, 55+)

...that money....

(b)...loh únicoñ que θabían que yo era hermano con él eran... (CR, 55+)

...the only ones who knew he was my brother were....

(c)...*Θon Θincuenta*... (CR, 55+)

...it's fifty...

Preceding segment	Word Position		
	Initial	Medial	Final
Voiced plosive	0	0	0
Voiceless plosive	0	0.44 (N=9)	0
Fricative	0	0	0
Nasal	10 (N=119)	15 (N=311)	0
Liquid	8 (N=90)	7 (N=138)	0
Pause	7 (N=83)	0	0
High vowel	7 (N=77)	16 (N=327)	23 (N=10)
Non-high vowel	69 (N=806)	61 (N=1248)	77 (N=33)

Table 4-12 Distribution of the preceding segment of [Θ] across word position.

Following segment	Word Position		
	Initial	Medial	Final
Voiced plosive	0	0	0
Voiceless plosive	0	0	14 (N=6)
Fricative	0	0	0
Affricate	0	0	0
Nasal	0	0	0
Liquid	0	0	0
Pause	0	0	70 (N=30)
High vowel	31 (N=370)	41 (N=841)	7 (N=3)
Non-high vowel	69 (N=805)	59 (N=1191)	9 (N=4)

Table 4-13 Distribution of the following segment of [θ] across word position.

Recall that more than half (62.22%; table 4-3) of the interdental occurred in medial position, in this position, table 4-12 shows that the interdental is most frequently preceded by both non-high vowels (61%) and high vowels (16%), and by nasal consonants (15%). Table 4-13 shows that in the same position [θ] is followed most frequently by the non-high vowels 59% and by high vowels 41% of the time. Examples 5a and 5b show the interdental preceded and followed by high and non-high vowels (underlined). The word *delincuencia* in example 5c shows the interdental in word medial position preceded by a nasal and followed by a high vowel.

(5) (a) ...*ella me deθía: pobreθito, a θaber θi no e[h]tará θufriendo (MM, 34-54)*

...she would tell me: poor kid, who knows, he might be suffering.

(b) ...*me quedaron debiendo cuatro meθeh pero...* (IE, 55+)

...they ended up owing me four months but...

(c) ... *loh empleoh quiebran a cauθa de la delincuenθia.* (CT, 20-34)

...businesses go bankrupt due to crime [committed by gangs]

Finally, though the interdental rarely occurred in word final position, the most frequent segments that precede it in this position are non-high vowels with 77%, and high vowels with 23%. In word final position the interdental was observed mainly when followed by a pause 70% (N= 30) of the time (exemplified in 6a with the underlined ellipsis). The interdental also occurred a 14% (N=6) when followed by voiceless plosives as in example 6b. In word final position, the interdental was observed only 7 times when followed by both, high and non-high vowels (examples 6c-6g).

(6) (a) ...*mi mamá... mi mamá murió en mil noveθientoθ...no, el doh mil doh.* (JI, 55+)

...my mother...my mother died in nineteen ninety...no, in two thousand two.

(b) *voθ θabeθ que entre loh tiempoh el que tiene dinero se aprovecha de la hembra.*

(CR, 55+)

You know that throughout time those with money have taken advantage of women.

(c) ... *Lo*θ *Ángeles*. (AG, 35-54)

(d) ...*lo*θ *hermanoh*... (CR, 55+)

...the brothers...

(e) ... *mucho*θ *objetoh*. (AA, 9-14)

...many objects...

(f)... *pintándo*θ *e la*θ *unah*... (IE, 55+)

...polishing her finger nails...

(g)...*lo*θ *hijo*θ *de ella*... (AA, 9-14)

...her sons...

In summary, medial word position between vowels is the most productive environment for the interdental. The second most productive environment is word initial position when the previous word ends in a vowel. The least productive environment is word final position. In this position [θ] is mainly preceded by vowels and followed by a pause.

4.1.5. Distribution of [θ] according to stress

table 4-14 indicates that when examining the distribution of /s/ according to tonic stress, [θ] is the most commonly observed variant with 48% of the realizations. In regard to atonic stress, the most commonly observed variant is the aspiration with half of the occurrences.

	Stress	
	Tonic	Atonic
[s]	16 (N=477)	9 (N=560)
[θ]	48 (N=1478)	30 (N=1773)
[h]	30 (N=929)	50 (N=3029)
[∅]	6 (N=189)	11 (N=639)

Table 4-14 Distribution of /s/ according to stress.

As seen in table 4-15 which shows only the distribution of the [θ], the majority (54.45%) of interdental variants occurred in atonic syllables (example 7a), while 45.55% occurred in tonic syllables (example 7b). The difference between these two parameters was not significant according to a Type II Wald Chi square test (p=0.3252).

	Tonic	Atonic
[θ] Count	1478	1773
%	45.55	54.45

Table 4-15 Distribution of [θ] according to stress.

(7) (a)... *no hay θeguridad aquí...* (AG, 35-54)

...it is not safe in here...

(b)... *mediθina.* (MM, 35-54)

...medicine.

4.1.6. Distribution of [θ] according to word type

Table 4-16 shows that the most commonly observed allophone in content words was the aspirated variant with 43% of the realizations. The interdental was the second most produced variant with 37% .The least produced were the sibilant [s] with 11% and the elided variant 9% of the time. Similarly the aspirated and the interdental are the most commonly observed variants in function words with 51% and 23% of the realizations respectively.

	Word type	
	Content word	Function word
[s]	11 (N=919)	11 (N=118)
[θ]	37 (N=3007)	23 (N=244)
[h]	43 (N=3424)	51 (N=534)
[∅]	9 (N=671)	15 (N=157)

Table 4-16 Distribution of /s/ according to word type.

Table 4-17 shows that, though realizations of /s/ as [θ] were found in all word categories considered, [θ] was mainly produced in content words (nouns, verbs, adjectives, adverbs) 92.67% of the time and only 7.33% of the time in function words (determiners, conjunctions, pronouns, prepositions). Examples 8a-8e show the interdental in content words: in nouns with the words *cementerio* and *señor*; in verbs with the words *pensaba* and *decirle*; in an adjective with the word *cinco*; and in an adverb with the word *casi*.

	Word Type	
	Content word	Function word
[θ] count	3007	244
%	92.67	7.33

Table 4-17 Distribution of [θ] according to word type.

- (8) (a) *...dijeron que en la mañana θe podía ir al θementerio y allí andaba un θeñor* (AR, 55+)

...they said that one could go to the cemetery in the morning and there was a man there...

- (b) *...yo penθaba hablarle para deθirle que le habian cortado la lu[h]...* (IE, 55+)

...I was thinking about calling you to tell you that your electricity had been disconnected...

- (c) *... a laθ θinco, tipo θinco y media.* (AA, 9-14)

...at five, around five thirty.

- (e) *Yo pienθo que ya caθi no hay control.* (AG, 35-54)

I think there is almost no control.

4.1.7. Distribution of [θ] according to number of syllables

As shown in table 4-18, in monosyllabic words, the two most produced variants of /s/ are the aspirated and the interdental (46% and 25% respectively). Elision and the sibilant occur at lower rates with 16% and 12% of the realizations. In polysyllabic words, the interdental is the second most produced variant with 37% of the occurrences.

	Number of syllables	
	Monosyllabic	Polysyllabic
[s]	12 (N=119)	11 (N=918)
[θ]	25 (N=242)	37 (N=3009)
[h]	46 (N=437)	43 (N=3521)
[∅]	16 (N=156)	8 (N=672)

Table 4-18 Distribution of /s/ according to number of syllables.

The interdental allophone of /s/ was produced in both monosyllabic words as well as in polysyllabic words. In 92.34% of the cases [θ] was found in polysyllabic words and only in 7.67% of the cases did not occur in monosyllabic words, as indicated in table 4-19.

Number of Syllables	Monosyllable	Polysyllable
[θ] Count	242	3009
%	7.67	92.33

Table 4-19 Distribution of [θ] by number of syllables.

4.1.8. Distribution of [θ] according to morphological role

As shown in table 4-20, the interdental is the most common variant of /s/ that occurs with non-morphemic value at a rate of 51%. In contrast, the aspirated variant is observed 75% of the time as a plural marker and 80% of the time it occurs as verbal

inflection. The null variant [Ø] is the second most common segment that is observed with these values (22% as a plural marker and 29% of the time as a verbal inflection).

	Morphological role		
	Non-morphemic	Plural marker	Verbal inflection
[s]	15 (N=980)	2 (N=54)	1 (N=3)
[θ]	51 (N=3212)	2 (N=36)	1 (N=3)
[h]	30 (N=1924)	74 (N=1639)	80 (N=395)
[Ø]	4 (N=237)	22 (N=497)	19 (N=94)

Table 4-20 Distribution of /s/ according to morphological role.

When only the interdental is examined according to morphological role, table 4-21 shows that a vast majority of the interdental variants occurred when they had non-morphemic value. Such occurrences of the interdental account for 98.68% (N=3212) of the total. This coincides with the fact that the majority of [θ] were observed in both word initial position and in word medial position, together accounting for 98.89% of [θ] realizations (table 4-3). Examples 9a and 9b illustrate the interdental with non-morphemic value. Table 4-21 also shows that the interdental rarely occurred as plural marker in word final position as it was only observed 1.08% (N= 36) of the time (example 9c and 9d). It occurred only three times as a verbal inflection accounting for only 0.06% (N=3) of the cases, as in examples 9e and 9f where in both cases it occurred when followed by voiceless plosives.

Morphological Role	Non-morphemic	Plural marker	Verbal Inflection	Total
[Ø] Count	3212	36	3	3251
%	98.86	1.08	0.06	100

Table 4-21 Distribution of [Ø] by morphological status.

- (9) (a) ... *por eθo pienθo que eh mejor aeromoθa.* (MB, 15-19)
 ...that is why I think being a flight attendant is best.
- (b) ... *voθ le deθih* (SG, 15-19)
 ...you tell her
- (c) ...*cuatro cocoθ, cuatro arboleθ de coco* (JI, 55+)
 ...four coconuts, four coconut trees
- (d) ... *leh haθen reunioneθ y le dan θu refrigerio, θiempre leθ dan refrigerio.* (IE, 55+)
 ...they meet and they give them snacks, they always give them snacks.
- (e) ...*aprendimoθ porque teniamoh que paθar la materia y el θiclo.* (JA, 20-34)
 ...we learned that we had to pass the class as well as the semester.
- (f) *Voθ θabeθ que...* (CR, 55+)
 You know that...

4.2. Linguistic factors that significantly affect /s/ as [Ø]

This section presents results of the statistical analysis of linguistic factors and their effect or lack thereof on the pronunciation of [Ø]. The model for this analysis

included word position, syllable position, preceding segment, following segment, stress, word type, number of syllables, and morphological status as linguistic factors as summarized in table 3-8. It should be noted that based on the descriptive analysis reported in section 4.1, several levels were excluded from the preceding and following factor groups in the mixed-effects model. Specifically, voiced plosive and fricative consonants were excluded from the preceding segment factor group, and, fricative, voiced plosive, liquid, and nasal consonants were excluded from the following segment factor group because the distribution analysis revealed that the interdental did not occur before or after them respectively. The results of the mixed-effects model are displayed in table 4-22, which shows that word position, syllable position, following segment, word type, and morphological role are the factors that significantly⁸ affect the pronunciation of the interdental.

Analysis of Deviance Table (Type II Wald chisquare tests)			
	Chisq	Df	Pr(>Chisq)
Word position	69.9235	2	6.551e-15 ⁹ ***
Syllable position	42.5220	1	6.989e-11 ***
Preceding segment	21.513	5	0.063438
Following segment	124.6566	3	<2.2e-16 ***
Stress	0.9679	1	0.3252
Word type	31.6117	1	1.883e-08 ***
Number of syllables	0.9835	1	0.3213
Morphological status	11.7277	2	0.0028 **
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1			

Table 4-22 Analysis of deviance table for the model including linguistic factors only.

⁸ Significance is indicated by the p-values (Pr(>Chisq)) and the asterisks '***'. Three asterisks indicate that the p-value falls between 0 and 0.001; two asterisks indicate that the p-value falls between 0.001 and 0.01; one asterisk indicate that the p-value falls between 0.01 and 0.05. The absence of an asterisk indicates a p-value above 0.05.

⁹ 0.000000000000006551

While it was important to find out which factors were statistically significant, it was also important to determine whether or not there were significant differences between the different levels of each factor group, for example whether or not there were differences between syllable initial and syllable final position. In order to determine whether these differences were statistically significant, pairwise comparisons were performed. The results of the pairwise comparisons are presented in the sections below.

4.2.1. Word position

Word position is one of the linguistic factors that had a significant effect on the pronunciation of [θ] (Chisq 69.9235; $p < 6.551e-15$). A pairwise comparison (table 4-23) of [θ] vs. [s, h, Ø] showed that there were significant differences among all word positions considered in the analysis. There were significant differences between initial and medial position, between initial and final position, and between medial and final position.

Pairing	Odds Estimate(95% CI ¹⁰)
(1)Word position: Initial - Medial	0.6940 (0.5843, 0.8245)
(2)Word position: Initial – Final	15.2560 (6.7684, 34.3868)
(3)Word position: Medial – Final	21.9806 (9.8130, 49.2038)

Table 4-23 Pairwise comparisons of initial, medial, and final word position, $p=0.05$.

¹⁰ CI: confidence interval. Confidence intervals that do not include 1 indicate that there is evidence for differences between the groups at the 0.05 significance level. For example the interval (9.8130, 49.2038) does not have 1 inside of it, since $1 < 9.8130$, therefore there are significant differences between medial and final syllable position.

In word initial position /s/ is 69% more likely to be pronounced as interdental than in medial position. A plot of the effect of word position on the interdental (figure 4-1) indicates that the probability of the [θ] occurring in word medial position is slightly higher (~0.30) than the probability of [θ] occurring in word initial position (~0.22).

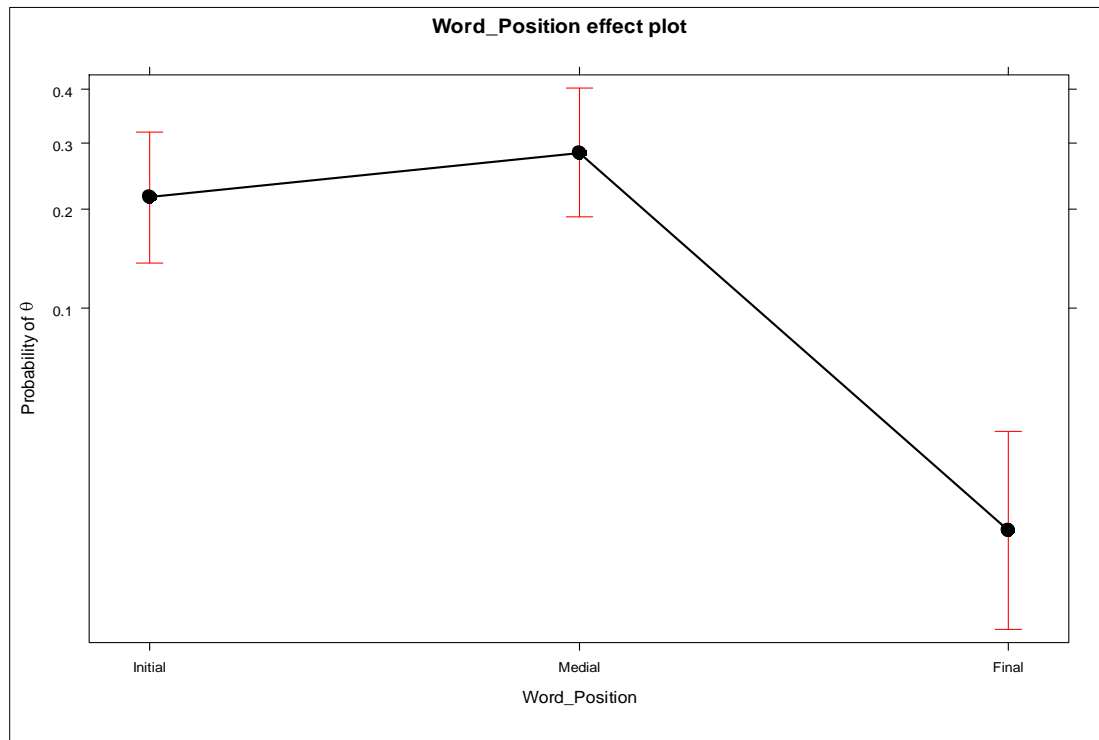


Figure 4-1 Effect of word position on the pronunciation of [θ].

When looking at the second comparison (initial vs. final), table 4-23 indicates that in word initial position /s/ is 15.25 times more likely to be pronounced as interdental than in final word position. Even though the interdental variant was observed in these two positions, the word position effect plot shown in (figure 4-1) indicates that the probability of the interdental occurring in initial position is much higher (~0.22) than the probability

of it occurring in word final position (< 0.05). Finally, when looking at comparison number 3 (medial vs. final), in word medial position /s/ is 21.98 times more likely to be pronounced as interdental than in word final position. Though observed in both positions, the interdental has more probabilities of being produced in middle (~ 0.30) than in word final position (< 0.005). The results of these comparisons coincide with the distribution of the interdental variant according to word position as the majority of occurrences were found in medial as well as in initial positions, and in final position to a much lesser extent.

4.2.2. Syllable position

Syllable position is also a factor that has a statistically significant effect on the pronunciation of /s/ as interdental ($p < 6.989e-11$ ¹¹). Specifically, there are significant differences between syllable initial and final position. Table 4-24 shows that in syllable initial position /s/ is almost 8 times more likely to be pronounced as an interdental than in final position. When looking at a graphical display of the probabilities of occurrence of the interdental, figure 4-2 shows that the probability of pronouncing the interdental in syllable initial position is much higher (~ 0.26) than in syllable final (< 0.05). This coincides with the distribution of [θ] according to this factor, since 98.18% the tokens were found in syllable initial position while only 1.82% of the tokens were realized in syllable final position.

¹¹ 0.00000000006989

Pairing	Odds Estimate(95% CI)
(1) Syllable position: Initial - Final	7.9922 (4.2791, 14.9274)

Table 4-24 Pairwise comparison of initial vs. final syllable position, p=0.05.

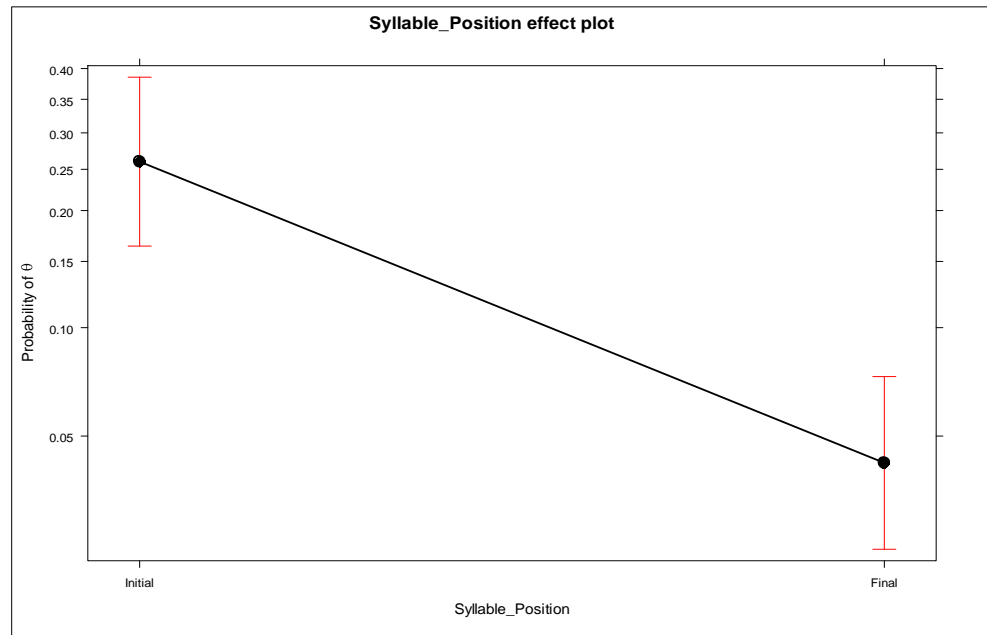


Figure 4-2 Effect of syllable position on the pronunciation of [θ].

4.2.3. Following segment

The following segment factor group included voiceless plosives, pause, high vowels, and non-high vowels. Results indicate that this factor group has a significant effect on the production of /s/ as interdental ($p < 2.2e-16$). Based on pairwise comparisons, it was determined that there were significant differences among all segments considered. For example, differences were significant between voiceless plosives and all other segments considered (pause, high vowels, and non-high vowels). Table 4-25 shows that

when the following segment is a voiceless plosive, /s/ is less than 0.01% to be pronounced as interdental as when the following segments are a pause, high and/or non-high vowels. There were also significant differences between pause and vowels (comparisons 4 and 5) as well as significant differences between high and non-high vowels (comparison 6). As shown in figure 4-3, the interdental has the highest probability of being produced when it is followed by a pause (~0.52). The second highest probability is when it is followed by high vowels and non-high vowels (~0.31, and ~0.29 respectively). The interdental has less than 0.05 probability of appearing when the following segment is a voiceless plosive. Recall that the interdental rarely occurred in word final position. When it does, it appears almost 70% of the time when followed by a pause and rarely when followed by voiceless plosives.

Pairing	Odds Estimate(95% CI)
(1)Following segment: Voiceless plosive - Pause	0.0029 (0.0009, 0.0091)
(2)Following segment: Voiceless plosive – High vowel	0.0055 (0.0020, 0.0149)
(3)Following segment: Voiceless plosive – Non-high vowel	0.0080 (0.0030, 0.0215)
(4)Following segment: Pause – High vowel	1.9105 (1.0173, 3.5882)
(5)Following segment: Pause – Non-high vowel	2.7721 (1.4835, 5.1799)
(6)Following segment: Non-high vowel – High vowel	1.4510 (1.2242, 1.7198)

Table 4-25 Pairwise comparison of following segments, p=0.05.

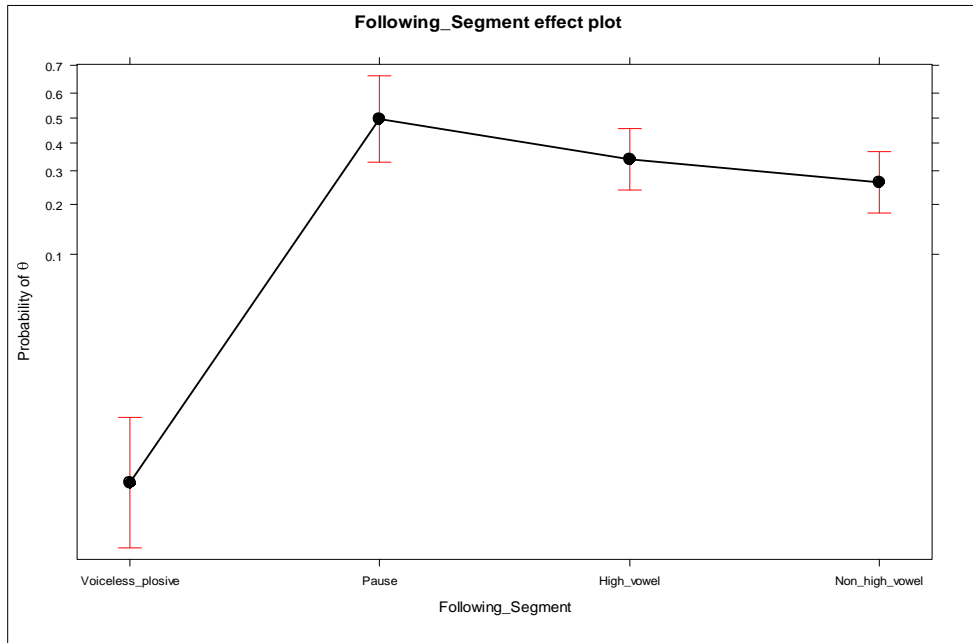


Figure 4-3 Effect of the following segment on the interdental.

4.2.4. Word type

This factor has a significant effect (Chisq= 31.6117; $p < 1.883e-08$ $45e-14$) on the production of $[\Theta]$. As shown in table 4-26, there were significant differences between content words and between function words. Specifically, when /s/ is produced in a content word, it is two times more likely to be pronounced as an interdental than in a function word. Though $[\Theta]$ was produced in both word types, a graphical display of the effect of this factor on the interdental (figure 4-4) shows that there are more probabilities for the interdental to be produced in content words (~0.43) than in function words (~0.22).

Pairing	Odds Estimate(95% CI)
(1)Word type: Content word – Function word	2.0170 (0.5794, 0.5758)

Table 4-26 Pairwise comparison of word type (Content words vs function words), $p=0.05$.

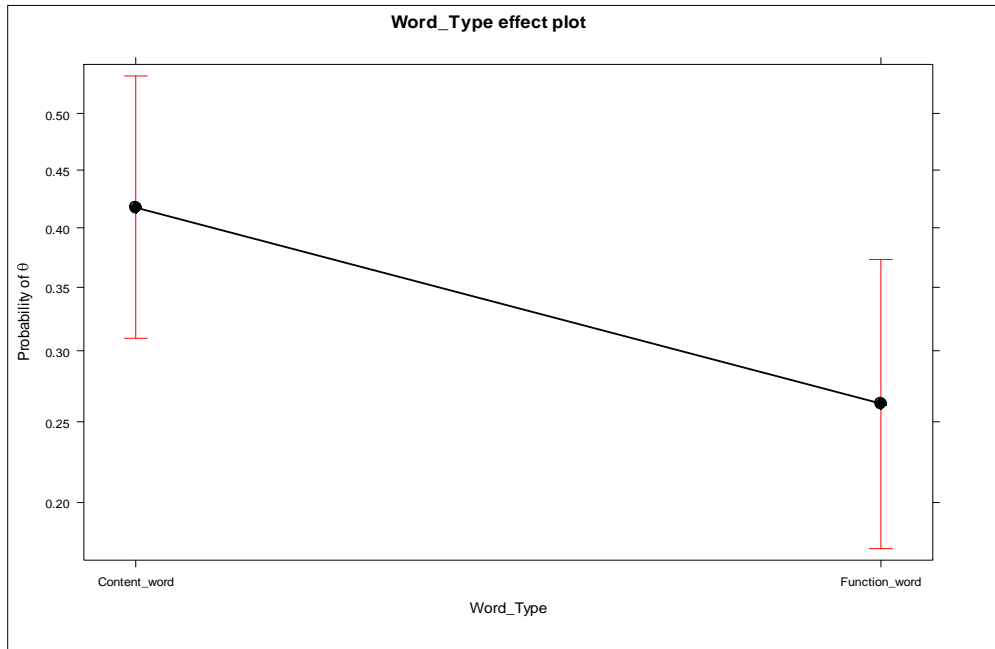


Figure 4-4 Effect of type of word on the pronunciation of [θ].

4.2.5. Morphological status

Morphological status was also a statistically significant predictor ($p < 0.0002$) of the production of /s/ as interdental (Chisq= 11.7277; $p = 0.0028$). Pairwise comparisons (table 4-27) of the morphological roles considered (/s/ with non-morphemic value, /s/ as a plural marker, and /s/ as a verbal inflection), showed that there were significant differences among these three categories. Three comparisons were made. In regard to the first comparison, when /s/ has no morphemic status it is 2.34 times more likely to be pronounced as interdental than when it functions as plural marker. When /s/ has a non-morphemic value, it is 6.24 times more likely to be pronounced as an interdental than when it functions as a verbal inflection. Finally, when /s/ functions as a plural marker, it is 2.79 times more likely to be pronounced as interdental than when it functions as a verbal

inflection. A graphical display of the effect of the morphological role on the pronunciation of the interdental indicates that this variant has more probabilities of occurring with non-morphemic value (~ 0.16) and less probabilities of occurring when functioning as a plural marker and/or when it functions as a verbal inflection (~ 0.08 and ~ 0.03 respectively). This coincides with the distribution of the interdental according to its morphological role presented in section 4.1.8 (above) since it was observed that [θ] occurred the majority of the times (98.86%) with non-morphemic value. In contrast, it was observed that [θ] occurred less frequently as a plural maker (1.08%) and as a verbal inflection (0.06).

Pairing	Odds Estimate(95% CI)
(1) Morphological role: Non-morphemic - Plural marker	2.2357 (1.2033, 4.1537)
(2) Morphological role: Non-morphemic - Verbal inflection	6.2461 (1.7197, 22.6896)
(3) Morphological role: Plural marker – Verbal inflection	2.7939 (0.7572, 10.3082)

Table 4-27 Pairwise comparison of morphological role, p=0.05.

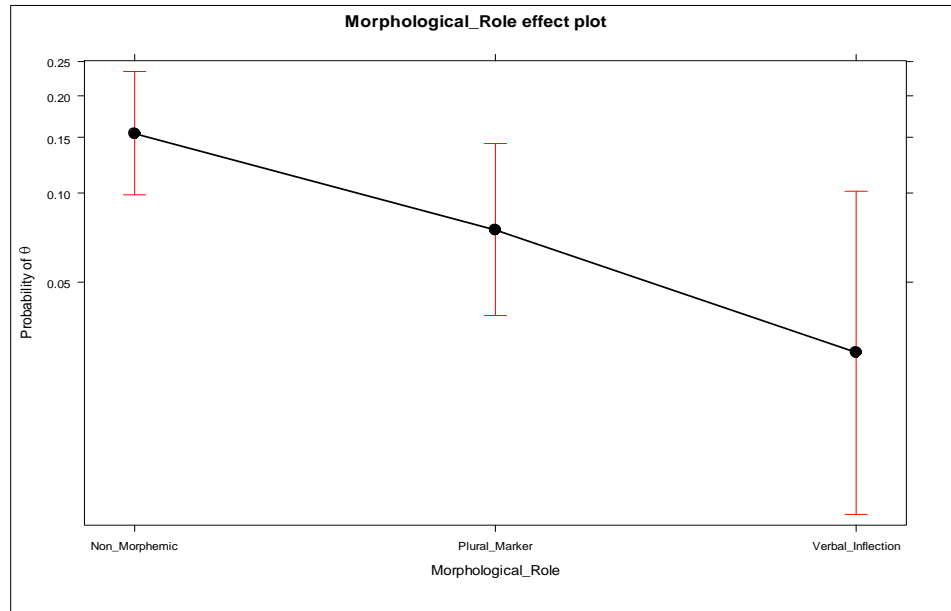


Figure 4-5 Effect of morphological status on the pronunciation of [θ].

In summary, the linguistic factors (variables) that have a significant effect on the pronunciation of /s/ as [θ] are: word position, syllable position, following segment, word type, and morphological status. Specifically, the interdental has more probabilities of occurring in medial word position syllable initial. When the interdental occurs in syllable/word final position it is more likely to be followed by a pause. Finally, [θ] is more likely to occur with non-morphemic value in content words.

4.3. Distribution of social factors

The social factors and their corresponding levels considered for the distributional analysis as well as the statistical analysis are presented below in table 4-28.

Categories of Explanatory Variables	Explanatory/Independent Variables	Descriptions
Social	Gender	Female
		Male
	Age Group	(1) 9-14
		(2) 15-19
		(3) 20-34
		(4) 35-55
		(5) 55+
	Occupation	(1) Farm worker; sales, foreman, maintenance, laborer, unemployed; housewife
		(2) Maid, police, clerk at a family owned business, student
		(3) Artisan, business owner, clerk at a shopping center
		(4) Professional, manager, civil servant
	Income	(1) Less than the minimum wage
		(2) Minimum wage (\$117.58)
		(3) Less than the national median but above the minimum wage
		(4) National median (\$270.69)
		(5) More than the national median
Education	(1) Some/incomplete grade school, no schooling	
	(2) Completed grade school; high school incomplete.	
	(3) High school graduate and/or technical school (short career); some college	
	(4) Completed college	

Table 4-28 Levels of social factors considered for the quantitative analysis.

In the following sections I present the distribution of social factors first, then, I present the factors that significantly affect the production of /s/ as an interdental.

4.3.1. Distribution of [θ] according to gender

A distributional analysis of gender shows that women lead in the production of the sibilant with 14 % compared to 9% in males (table 4-29). At the same time, there are virtually no differences in their rate of aspiration (43% in females and 44% in males) nor

in their rate of deletion (9% for both genders). When looking at the [Ø], the distributional analysis shows a slightly higher rate of use by males (37%) than by females (34%), but this slight difference is not significant as confirmed by a Type II Wald chi-square test (Chisq= 0.1187, p= 0.7305).

	Female	Male
[s]	14 (N=603)	9 (N=434)
[Ø]	34 (N=1511)	37 (N=1740)
[h]	43 (N=1926)	44 (N=2032)
[Ø]	9 (N=396)	9 (N=432)

Table 4-29 Distribution of /s/ across gender (%).

4.3.2. Distribution of [Ø] according to age group

The distribution of [Ø] in terms of age group shows that the highest production of [Ø] is found in the youngest (38%) as well as in the oldest (46%) groups (table 4-30). This table also shows that teenagers (ages 15-19) and young adults (ages 20-34) are the two groups with the lowest percentage of occurrences of the interdental. The 15-19 age group only produced the interdental 31% of the time. Participants in the age group 20-34 produced the interdental 32% of the time. This last group is also the group with the highest educational attainment, as 40% (table 4-31) of participants in this age group had completed college education. In summary, based on the distribution of the interdental according to age group, the use of the interdental is greater in the youngest as well as in the oldest group. Its production decreases among teenagers, young adults, and adults between the ages of 35 and 54. This trend can be also observed in figure 4-6 below.

	9-14	15-19	20-34	35-54	55+
[s]	4 (N=52)	10 (N=99)	15 (N=460)	14 (N=349)	7 (N=77)
[θ]	38 (N=507)	31 (N=312)	32 (N=971)	36 (N=921)	46 (N=540)
[h]	50 (N=678)	50 (N=488)	42 (N=1281)	42 (N=1077)	37 (N=434)
[∅]	8 (N=107)	9 (N=94)	10 (N=299)	8 (N=205)	10 (N=123)

Table 4-30 Distribution of [θ] and [s] by age group (%).

	Age group 9-14	Age group 15-19	Age group 20-34	Age group 35-54	Age group 55+
Education 1	60 (N= 3)	0	20 (N= 2)	0	50 (N= 2)
Education 2	40 (N= 2)	100 (N= 4)	20 (N= 2)	33.33 (N=3)	0
Education 3	0	0	20 (N= 2)	55.55 (N= 5)	50 (N= 2)
Education 4	0	0	40 (N= 4)	11.11 (N= 1)	0

Table 4-31 Distribution of age group by educational level (%).

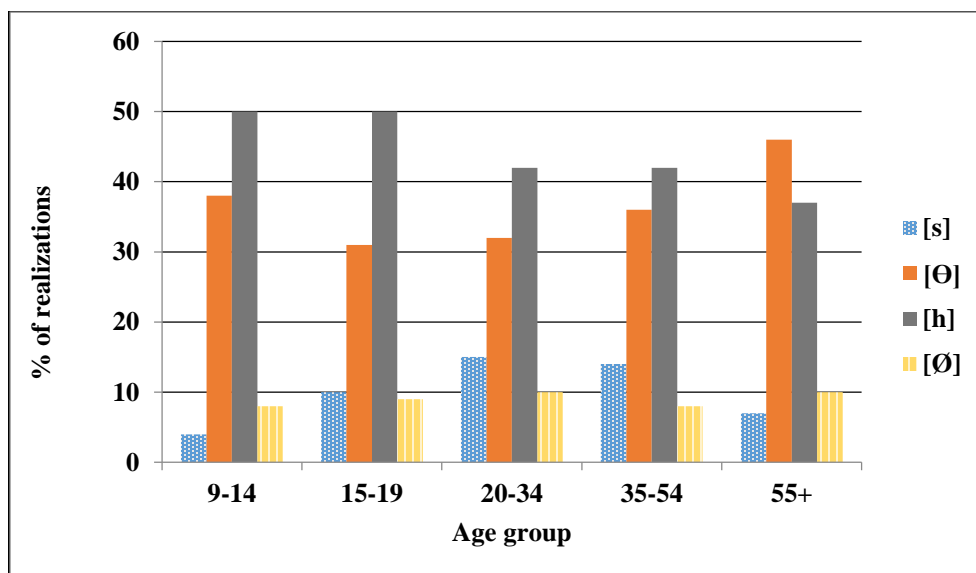


Figure 4-6 Distribution of /s/ variants by age group (%).

A graphical distribution of the [θ] production according to age group reveals a u-shaped curve which is the classic pattern of age grading. Tagliamonte (2012) mentions that this phenomenon happens when people of different ages use language according to their life stage. Additionally, Holmes (2008, p. 176-77) mentions that “the use of vernacular forms tends to peak during adolescence when peer group pressure not to conform to society’s norms is greatest”. The norm against which the teenager group is “rebellious” is the interdental (as will be explained in section 4.6 below). As table 4-30 indicates, this is also the group in which the lowest production of interdentals was observed. Though the use of [s] in the adolescent group is not the highest, it is certainly where it begins to increase when compared to the youngest group as figure 4-7 shows.

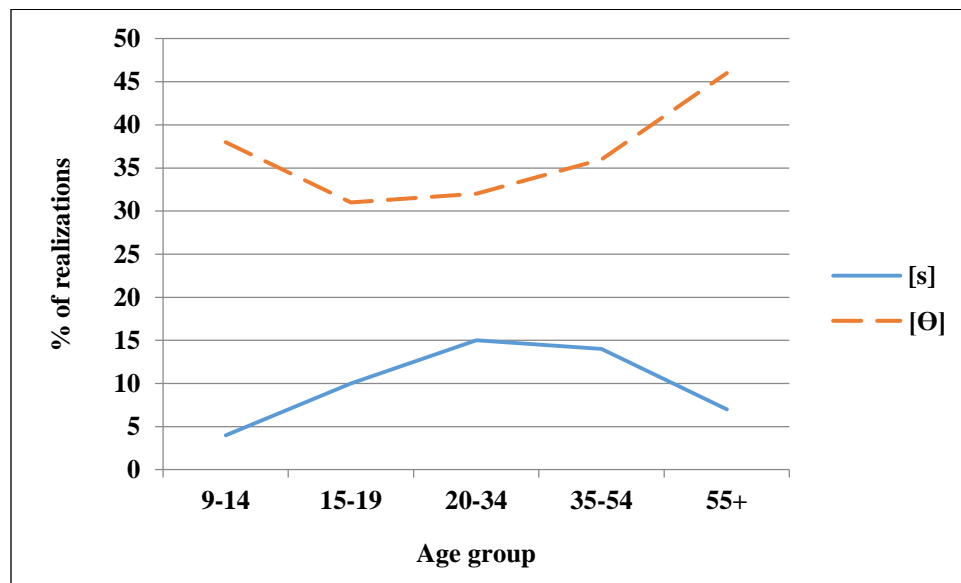


Figure 4-7 Production of [θ] and [s] by age groups (%).

The use of the interdental versus the sibilant variant within the 15-19 year-old group may also depend on the affective stance of the speaker as the interdental may be used as a resource of identity¹² to identify with or to separate from members of a particular group. Eckert (1996) states that “speakers can intentionally use variation to reaffirm their affective stance toward certain groups based on beliefs, attitudes, power relations, and shared activities”. This seems to be the case of AD, a 15 year old participant, who intentionally switched between the [θ] and the [s] in specific parts of his speech to reaffirm his position toward a close-knit religious committee¹³ of which he is a member. This group is led by young teachers in their 20’s from the community, who are seen by the adolescents as models to follow. During the interview, while talking about this group, AD referred to these teachers with respect and admiration. Furthermore, while talking about the leaders, the group, and the activities performed, AD switched from [θ] to [s]. Consider the following exchange in which I (R) asked AD, whether he belonged to a local group/committee or not:

1 *R¹⁴: Y ¿Usted pertenece a algún grupo o comité?*

2 *AD: A la igleθia, θí*

3 *R: ¿Qué hacen?*

4 *AD: Haşemoh reunioneθ loθ domingoh a lah treθ de la tarde para que no anden loθ jóveneθ*

¹² I adopt Bucholtz and Hall’s definition of the term. “Identity is the social positioning of self and other”.

¹³ The objective of this group is to keep pre-adolescents and adolescents away from local gangs, as such the group’s activities are geared toward creating an environment where young people feel welcome and safe. The group organizes activities where its members feel included as they play an essential role in the execution of their activities. Additionally, the group celebrates members’ achievements. The leaders of the group, who hold college degrees, belong to economically stable families in the community.

¹⁴ R: identifies the researcher

- 5 *en la calle.*
- 6 *R: Y ¿Quiénes están a cargo?*
- 7 *AD: Carloh Aguilar, Walter Jiménez y Lili una que es hija de...que eh profesora.*

Note that when AD responded that he belonged to a church group in line 2 he used the interdental in the word/syllable position where it is expected according to the analysis in section 4.1 and 4.2. Then, in line 4 he starts talking about what they do as a group, but he switches from [θ] to [s] in a word/syllable position where [θ] is expected: *Hasemoh reuioneh* ‘we meet’. Finally, in line 7 he talked about who the leaders were. In doing so he keeps using the standard [s], again, in word/syllable positions where the interdental is expected.

The u-shape of [θ] use suggests that this is a non-prestigious variant of /s/ as the groups in the middle show a decrease in its use. Tagliamonte (2012, p. 47) mentions that middle age groups tend to become more conservative in their use of vernacular forms due to societal pressures and job advancement. This could be the case of the middle groups in the present study since their use of [θ] decreases as their use of the standard [s] increases (see figure 4-7).

Another argument that supports the view that this is an age grading phenomenon lies in the socio-historical conditions that the study’s age groups have faced. The three oldest groups (20-34; 35-54; 55+) lived through a 12-year war during which Tecapán experienced a significant amount of internal as well as external migration. People from rural areas in which there was conflict moved into more urban areas like Tecapán. The violence and the lack of opportunities to improve life conditions generated by the war

led, to this day, to massive external migration mainly to the United States and Canada. As a consequence, one or both parents have been migrating to find better opportunities, leaving their children under the care of their grandparents. The older adult group of the present study includes both female and male participants in their 70's, all of whom are grandparents. These grandparents are the primary caregivers of some of the participants in the youngest group. Because the production of [θ] is present in the speech of the caregivers, the youngest group may have acquired the interdental sound from them since the data indicates the highest percentage of [θ] is found in these two groups.

4.3.3 Distribution of [θ] according to occupation

In terms of occupation, the majority of participants were distributed between category 1 and category 2.¹⁵ Only 13% of participants were in category 4 on the occupational scale (table 4-32). A distributional analysis of the use of the interdental according to occupation showed that participants within the highest occupational category produced the least number of interdentals with only 19% of [θ] realizations. This category comprised participants who had the most exposure to the “standard” language as they work for governmental agencies as well as for international NGO's. These settings may in turn influence and determine the linguistic choices these participants make. In contrast, the use of the interdental was higher among participants in categories 1 through 3 where it remained at a rate of approximately 38% (table 4-33).

¹⁵(1) Farm worker; sales, foreman, maintenance, laborer, unemployed; housewife
(2) Maid, police, clerk at a family owned business, student
(3) Artisan, business owner, clerk at a shopping center
(4) Professional, manager, civil servant

Taking into consideration the linguistic market, participants in occupation 3, whose exposure to commercial institutions is higher, were expected to use the interdental less than participants in occupation 1 and 2. However, contrary to expectations, participants in category 3 used the interdental slightly more (39% vs 38%) than those in lower occupational categories. A reason for this behavior could be that the majority of participants in category 3 were owners of local family businesses. Those who shop at their stores were not only people from the same neighborhood but also people whom they had known for a long time. Given the familiarity of the participants with their “clients and/or neighbors” there was probably no need for increased awareness of the importance of using the “standard” in their exchanges. A graphical display (figure 4-8) of the interdental according to occupation, indicates that the use of the interdental decreases only in category 4. The graph also shows that the sibilant generally increases as occupational level rises.

Occupation 1	Occupation 2	Occupation 3	Occupation 4
34 (N= 11)	31 (N= 10)	22 (N= 7)	13 (N=4)

Table 4-32 Distribution of participants per occupation category (%).

	Occupation 1	Occupation 2	Occupation 3	Occupation 4
[s]	8 (N=271)	5 (N=143)	12 (N=233)	32 (N=390)
[θ]	38 (N=1255)	38 (N=1017)	39 (N=743)	19 (N=236)
[h]	44 (N=1459)	48 (N=1272)	40 (N=755)	39 (N=472)
[Ø]	10 (N=347)	8 (N=210)	8 (N=159)	9 (N=112)

Table 4-33 Distribution of /s/ by occupation (%).

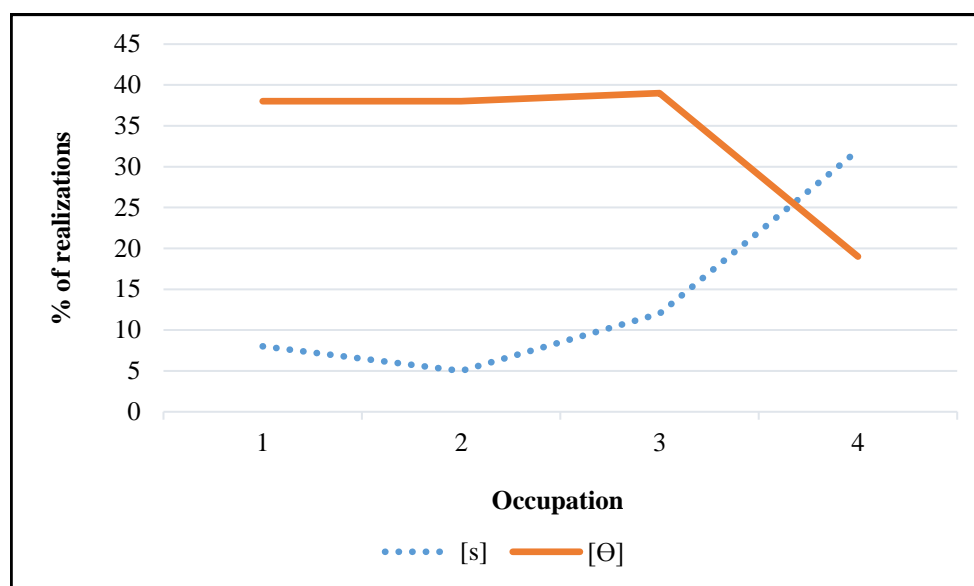


Figure 4-8 Distribution of [Θ] and [s] by occupation.

4.3.4. Distribution of [Θ] according to education

The majority of participants were distributed across the first three levels of education¹⁶ and only 5 (16%) participants had completed and were in education category 4, the highest educational attainment (table 4-34). The majority of participants assigned to level 1 were the youngest as such they were still in grade school. There was only one adult assigned to this category as he had no schooling at all. 34% and 28% of the participants were assigned to education categories 2 and 3.

In regard to the distribution of the interdental according to education, table 4-35 table 4-35 indicates that the pronunciation of the interdental is somewhat steady across the first three levels of education (Education 1=38%; Education 2=37%; and Education

¹⁶ (1) Some/incomplete grade school, no schooling
 (2) Completed grade school; high school incomplete.
 (3) High school graduate and/or technical school (short career); some college
 (4) Completed college

3= 39%). However, the use of the interdental decreases in participants who have completed college education. An explanation that may support such a distribution is that the educational institution that participants in groups 1 through 3 attended and/or are attending is located in Tecapán. This institution is an educational complex that serves students from kindergarten through high school. The majority of teachers are from the same town, and thus students are exposed to the same linguist choices. Those in educational level 4, on the other hand, have completed college education for which they had to travel to and often lived temporarily in one of the main 3 cities of El Salvador, where they would have encountered other linguistic choices. As indicated in table 4-31, forty percent of the participants in this category are between the ages of 20-34 and work for the government or for private educational institutions and NGO's outside Tecapán, so most likely their linguistic choices are influenced by their participation in these institutions.

Even though, education did not have a statistically significant effect on the pronunciation of [θ], figure 4-9 shows that its frequency is similar across the first three categories but that it decreases among participants who completed college education. The use of the sibilant, in contrast, constantly increases as the level of education increases.

	Education 1	Education 2	Education 3	Education 4
participants	22 (N= 7)	34 (N= 11)	28 (N= 9)	16 (N=5)

Table 4-34 Distribution of participants per education category (%).

	Education 1	Education 2	Education 3	Education 4
[s]	7 (N=145)	7 (N=187)	11 (N=302)	27 (N=403)
[θ]	38 (N=764)	37 (N=1062)	39 (N=1041)	25 (N=384)
[h]	45 (N=898)	47 (N=1359)	41 (N=1104)	39 (N=597)
[Ø]	9 (N=180)	9 (N=272)	9 (N=246)	9 (N=130)

Table 4-35 Distribution of /s/ use according to education (%).

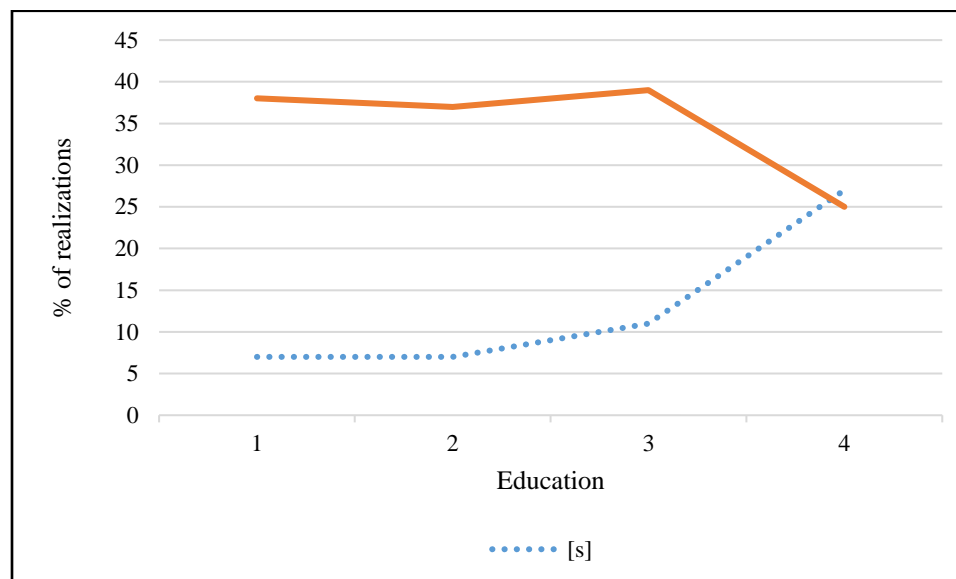


Figure 4-9 Distribution of [θ] and [s] according to education.

The fact that education was not a significant conditioning factor of [θ] may be due to the varying number of occurrences of the interdental within group 4. Table 4-36 shows that two speakers rarely produced the interdental: RS produced it 7 times and KS produced it 16 times while speakers DG and JA produced it a total of 130 and 156 times respectively. There was one speaker who produced it 78 times. The two speakers with the least number of interdental produced the most sibilants [s]. In contrast participants DG

produced the sibilant only 36 times while JA did not produce it. The internal variation within this group may have contributed to the lack of a significant effect of education on the realization of the interdental.

Person	Gender	Age group	Occupation	Education	Income	Casual [s]	Casual [θ]	Casual [h]	Casual [∅]
KS	Female	20-34	Civil servant	Completed College	National median	147	16	110	26
LI	Female	20-34	Civil servant	Completed College	> National median	59	78	143	26
DG	Male	20-34	Business owner	In college	> National median	36	130	109	26
JA	Male	20-34	Student	In college	More than minimum	0	156	118	29
RS	Male	35-54	Civil servant	Completed College	> National median	162	7	118	18

Table 4-36 Social characteristics and number of occurrences of /s/ by speakers in education group 4.

4.3.5. Distribution of [θ] according to income

Table 4-37 shows the distribution of participants based on their income. It reveals that 22% of the participants receive a monthly income of less than the minimum wage which is \$117.58 dollars.¹⁷ Four participants (12%) earn the minimum wage. There were six participants (19%) who receive a monthly income somewhere between \$117.58 and less than the national median which is \$270.69. The largest percentage of participants (28%, N= 9) receive a monthly income of \$270.69, and another 19% (N= 6) earned more than the national median.

¹⁷ The U.S. dollar is the currency in use since January of 2001.

	Income 1	Income 2	Income 3	Income 4	Income 5
# of participants	7	4	6	9	6
%	22	12	19	28	19

Table 4-37 Distribution of participants per income¹⁸.

The percentages of use of the interdental are somewhat higher among participants in the first three categories, although participants in all categories use the interdental between 31% and 41%. For example, among those who earn less than the minimum wage the rate of use is 39%. Similarly, those who make more than the minimum wage yet less than the national median also show a rate of use of 39%. The use of [θ] is the highest among participants in category 2 receiving the minimum wage as a monthly income (\$117.58). Those in category 4, who receive a monthly income of \$270 (the national median), as well as those making more than the national median (category 5) show the lowest percentages of realizations with 32% and 31% respectively.

	Income 1	Income 2	Income 3	Income 4	Income 5
[s]	7 (N=133)	9 (N=106)	11 (N=188)	11 (N=260)	19 (N=350)
[θ]	39 (N=748)	41 (N=498)	39 (N=693)	32 (N=755)	31 (N=557)
[h]	45 (N=871)	43 (N=532)	41 (N=710)	47 (N=1113)	40 (N=732)
[∅]	10 (N=186)	7 (N=89)	9 (N=156)	9 (N=220)	10 (N=177)

Table 4-38 Distribution of participants per income.

¹⁸ (1) Less than the minimum wage
(2) Minimum wage (\$117.58)
(3) Less than the national median but above the minimum wage
(4) National median (\$270.69)
(5) More than the national median

Income did not have a significant effect on the pronunciation of /s/ as [θ].

Overall, figure 4-10 shows that the use of [θ] is somewhat higher among the first three categories and that it decreases among participants in the two highest income levels. In contrast, the use of the sibilant generally seems to increase with each income category.

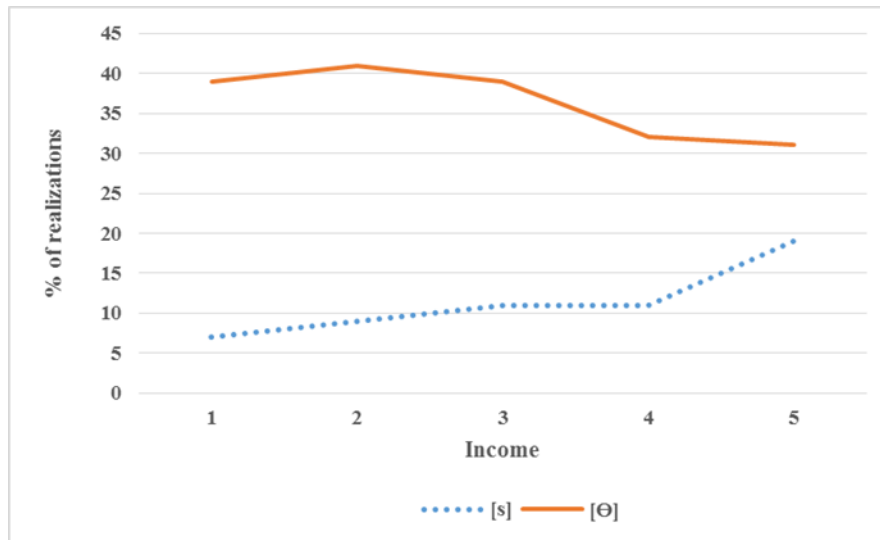


Figure 4-10 [θ] production per income.

4.4. Social factors that significantly affect /s/ as [θ]

This section presents the social factors that had a significant effect on the pronunciation of the interdental. As indicated in table 4-39, the social factors that significantly affect /s/ as interdental were age group and occupation. In this section, I first discuss age group and then occupation. This discussion is followed by a summary of the linguistic and social variables that affect the interdental.

	Chisq	Df	Pr(>Chisq)
Gender	0.1187		0.7305
Age group	10.6674		0.0306 *
Occupation	13.9537		0.0029 **
Education	2.0811		0.5557
Income	2.0014		0.7355
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1			

Table 4-39 Analysis of deviance table for the model including social factors only.

4.4.1. Age group

Age group ($p= 0.0306$) had a significant effect on the pronunciation of the interdental allophone of /s/. Though in the distribution shown in table 4-30, ages 15-19, 20-34, and 35-54 show less use of the interdental compared to both the youngest (9-14) and oldest group (55+), a pairwise comparison showed that there were no significant differences among the first four categories. However, each of these groups significantly differs from the oldest group in their use of the interdental (table 4-40). For example, age group 9-14 as well as age group 35-54 are approximately 1/3 (0.36 and 0.35) as likely as those over 55 to pronounce /s/ as interdental. There were also significant differences between age group 15-19 and between age group 55+ as well as between age group 20-34 and the oldest age group.

Pairing	Odds Estimate(95% CI)
(1) Age group: 9-14 vs. 55+	0.3677 (0.1491, 0.9066)
(2) Age group: 15-19 vs. 55+	0.1971 (0.0684, 0.5675)
(3) Age group: 20-34 vs. 55+	0.4386 (0.2116, 0.9095)
(4) Age group: 35-54 vs. 55+	0.3526 (0.1637, 0.7595)

Table 4-40 Pairwise comparison of [θ] between age groups, $p=0.05$.

As shown in figure 4-11, age group 15-19 has the least probabilities of producing the interdental (~ 0.20). In contrast, the interdental has the highest probabilities (~ 0.55) of being produced by participants 55 years old and above. Groups 9-14 and 35-54, have similar probabilities (~0.32) of producing the interdental. Finally, age group 20-34 has approximately 0.34 probabilities of producing [θ].

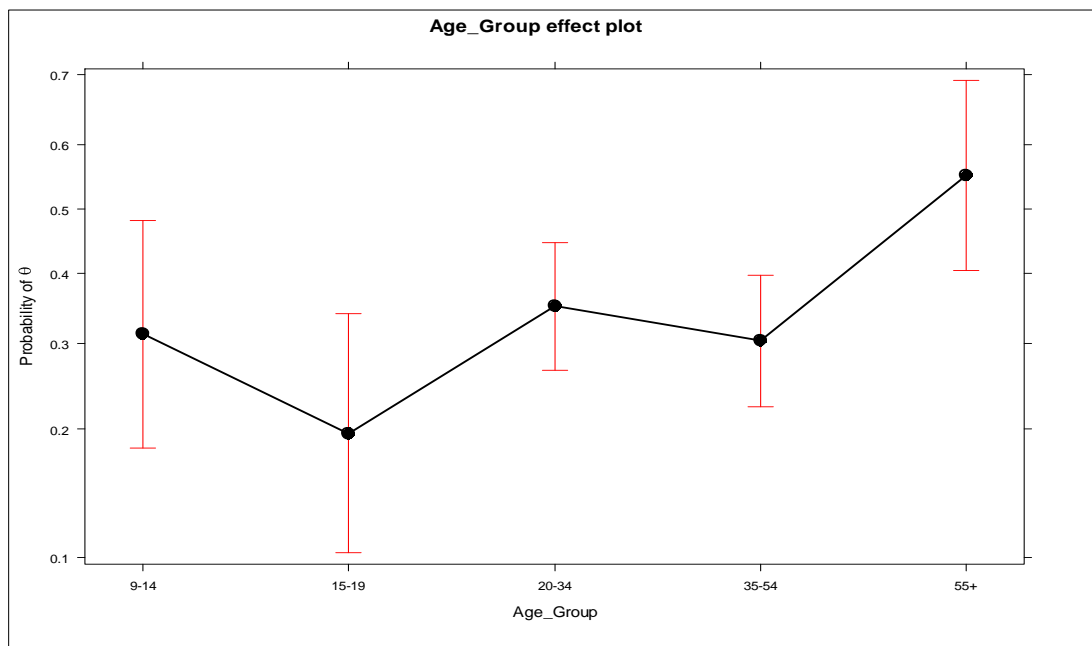


Figure 4-11 Effect of age group on the interdental.

These results do not coincide with the distribution of the interdental presented in section 4.3.2., according to which the highest number of interdentals is observed in the youngest as well as in the oldest group. One aspect that may have contributed to the difference between the youngest and oldest group may have been the fact that one of the youngest speakers produced the interdental only 9% of the time while the rest of the

participants within this group produced it between 21% and 25%. However, the fact the the youngest group is significantly different from the 55+ group in the pairwise comparison analysis does not necessarily invalidate the observations based on the distribution presented in section 4.3.2. The distribution as well as qualitative observation show that the speech of these two groups of speakers share important similarities regarding interdentalization. Furthermore, when age group is analyzed across style, as figure 4-12 (reproduced below) shows, the behavior of the youngest group is more similar to that of the two oldest groups of speakers in both casual as well as in careful style except in reading style where there are significant differences between the 9-14 and the 55+ age groups. The reasons why the pairwise comparison show differences between the two groups in question may be various. It might be that the young participant who only interdentalized 9% of time may be an outlier, and thus a larger number of participants may be needed. It might also be that age groups in this particular study could be better analyzed with an approach different than the pairwise comparison. In any event, the differences shown by pairwise comparison is counter-intuitive and resolving this dilemma is one my tasks for the future.

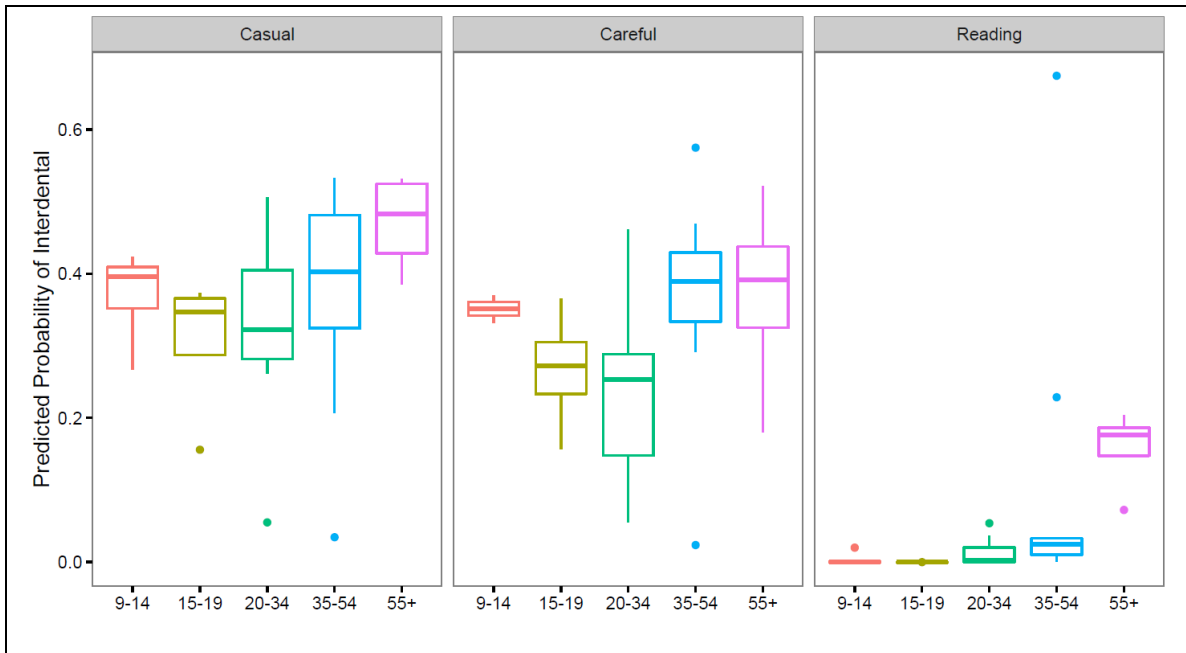


Figure 4-12 Predicted probabilities of [θ] production according to age group and style.

4.4.2. Occupation

As mentioned earlier, occupation was another social factor that affects the pronunciation of interdental /s/ ($p < 0.0029$). Furthermore, a pairwise comparison among all occupational levels showed that there were no significant differences among the first three occupational groups. There were, however, significant differences between the first three occupations and the fourth one (table 4-41). Specifically, those in categories 1 and 2 were respectively 2.1 and 2.0 more likely than category 4 to pronounce [θ]. Likewise, participants in category 3 were 1.6 more likely than those in category 4 to pronounce the interdental.

Pairing	Odds Estimate (95% CI)
(1) Occupation: 1 vs. 4	0.3496552 (0.1432559, 0.8534288)
(2) Occupation: 2 vs. 4	0.1935794 (0.0674141, 0.5558630)
(3) Occupation: 3 vs. 4	0.4298374 (0.2073921, 0.8908734)

Table 4-41 Pairwise comparison of [θ] between occupational categories, $p = 0.05$.

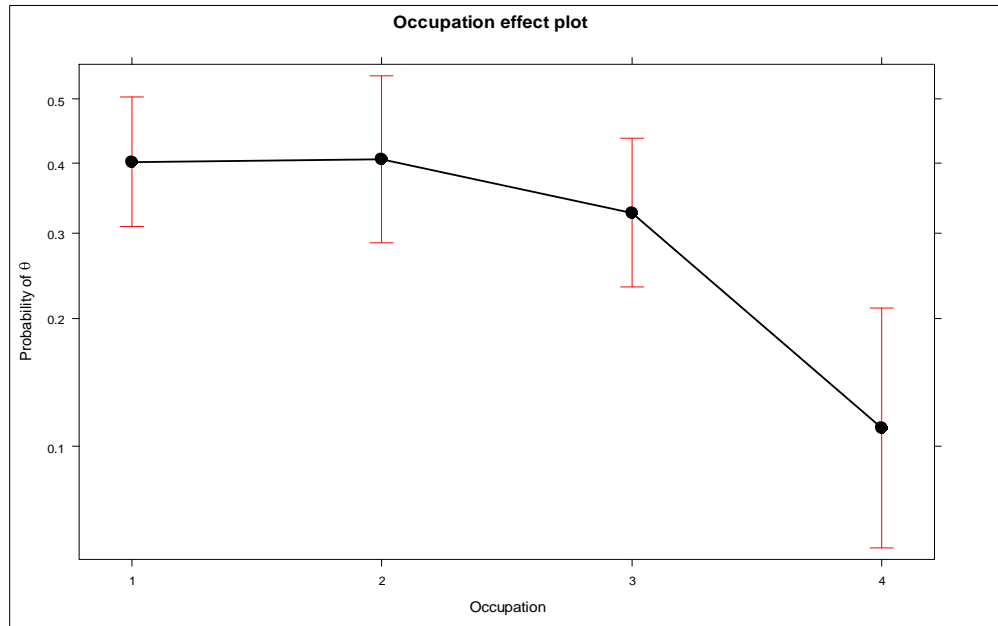


Figure 4-13 Effect of occupation on the interdental.

Figure 4-13 shows that those in occupation category 4 (professionals and civil servants) have the least probability (~0.11) of producing the interdental. Artisans, business owners, and clerks have the second lowest probability (~ 0.35). Participants in the other two categories (1, 2) have the highest probabilities (~ 0.40) of producing the interdental.

In summary, the social factors that had a significant effect on the realization of /s/ as interdental were age group and occupation, and the linguistic factors that had a significant effect on [θ] were word position, syllable position, following segment, word type, and morphological status. Therefore, the interdental is more likely to be observed in a speaker over the age of 55. Additionally, it is less likely to be observed in speakers between the ages of 20 to 34 who are in the highest occupational categories.

4.5. Style and the interdental

In addition to considering linguistic and social variables as factors conditioning the pronunciation of /s/ as interdental, this investigation also considered style as a factor potentially conditioning the interdental allophone. Style is used in terms of attention paid to speech. The data for the analysis of style came from the sociolinguistic interview (considered as casual speech), from the open-ended questionnaire (considered as careful speech), and from the reading task (formal speech). The total number of tokens extracted from each of these tasks is shown in table 4-42.

Task	# of tokens
Sociolinguistic interview (casual style)	9074
Open-ended questionnaire (careful style)	1108
Reading task (formal)	2792

Table 4-42 Summary of tokens extracted from these task.

4.5.1. Distribution of /s/ across styles

The distribution of /s/ variants according to style (table 4-43) revealed that the production of the interdental decreased as the formality of the task increased. For example, in casual style the interdental was produced 36.40% (N= 3303) of the time, however, in reading style it was only produced 5.73% (N=160) of the time. Figure 4-14 helps visualize this tendency.

	[s]	[θ]	[h]	[Ø]
Casual	11.38 (N= 1037)	36.40 (N= 3251)	43.32 (N=3958)	8.89 (N= 828)
Careful	19.58 (N=217)	31.14 (N= 345)	42.06 (N= 466)	7.22 (N= 80)
Reading	68.84 (N= 1922)	5.73 (N= 160)	18.62 (N= 520)	6.81 (N= 190)

Table 4-43 Distribution of /s/ according to style

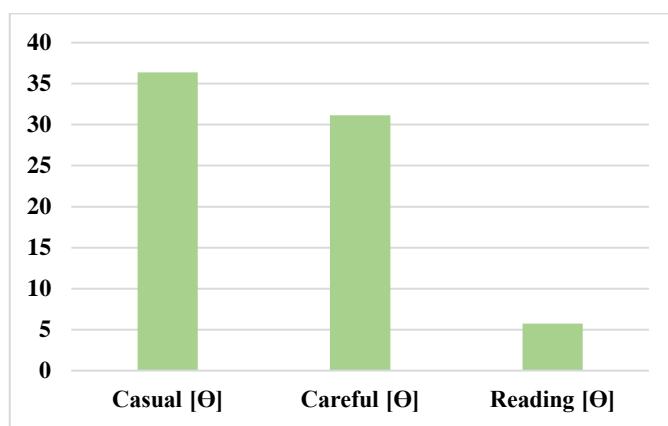


Figure 4-14 Distribution of the interdental [θ] across styles.

In contrast to the tendencies seen above, the prestige variant [s] showed the opposite effect since its frequency increased as the formality of the tasks increased. For example, in casual style it was produced 11.38% of the time, it then increased to 19.58% in careful style, and it finally reached 68.16% in the reading task, as illustrated in figure 4-15.

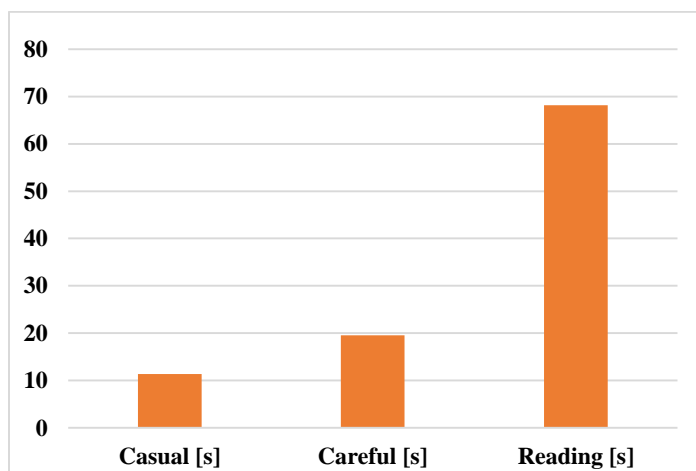


Figure 4-15 Distribution of the standard [s] across styles.

4.5.2. Effect of social factors and style on [θ]

When social and stylistic factors were statistically analyzed in order to determine whether they had an effect on the pronunciation of /s/ as [θ], it was found that age group ($p=0.02$), occupation ($p= 0.004$), and style ($p=002$) had a significant effect on the pronunciation of the interdental (table 4-44). Furthermore, when all the social factors were compared to style, pairwise comparisons revealed that there were significant interactions between all social factors except for education. In the following sections, I describe the distribution of each of the social factors across style as well as their effect on style.

Analysis of Deviance Table (Type II Wald chisquare tests)			
	Chisq	Df	Pr(>Chisq)
Gender	0.0871	1	0.7678587
AgeGroup	10.7262	4	0.0298197 *
Occupation	13.1306	3	0.0043625 **
Education	3.2222	3	0.3586118
Income	2.0161	4	0.7327969
Style	178.5437	2	< 2.2e-16 ***
Gender:Style	15.6057	2	0.0004086 ***
AgeGroup:Style	24.9122	8	0.0016087 **
Occupation:Style	29.0969	6	5.832e-05 ***
Education:Style	27.5342	6	0.051115
Income:Style	34.0898	8	3.913e-05 ***

Table 4-44 Analysis of deviance table for the model that includes social and stylistic factors.

4.5.2.1. Gender and style

When /s/ was examined across gender and style, it was observed that in casual and in reading style males used the interdental variant more than females. For example, in casual style males produced the interdental in 38% of the occurrences of /s/ and females produced it in 35%, while in reading style males produced it 9% of the time compared to 2% by females. In contrast, in careful style women produced slightly more interdentals than males. Specifically, females produced the interdental at a rate of 32% compared to a 30% production rate by male participants (table 4-45). It should be noted that the only differences between males and females that were statistically significant were in reading style, as shown in table 4-46 below. In regards to the prestige variant [s], females produced more of this variant than males in casual speech and reading and slightly less in careful style.

	Casual		Careful		Reading	
	Female	Male	Female	Male	Female	Male
[s]	14 (N= 602)	9 (N= 431)	19 (N= 116)	20 (N= 101)	73 (N= 1066)	63 (N= 837)
[θ]	35 (N= 1532)	38 (N= 1771)	32 (N= 194)	30 (N= 151)	2 (N= 36)	9 (N= 124)
[h]	43 (N= 1912)	44 (N= 2019)	42 (N= 249)	43 (N= 217)	17 (N= 242)	19 (N= 253)
[∅]	9 (N= 390)	9 (N=417)	7 (N= 39)	8 (N= 41)	8 (N= 109)	9 (N= 125)

Table 4-45 Distribution of /s/ according gender and style (%).

As mentioned above, there were significant differences between gender and style in the use of the interdental. Specifically, there were differences between casual style and careful style in males (table 4-46). For example, males were almost two times more likely to produce /s/ as interdental in casual style than in careful style. Figure 4-16 shows that the probability of males producing the interdental in casual style is higher than in careful style, that is, 0.4 in casual style and approximately 0.32 in careful style.

Pairing	Odds Estimate(95% CI)
(1) Casual, Male - Careful, Male	1.9898120 (1.052030; 3.763532)
(2) Reading, Female - Reading, Male	0.1059632 (0.013063; 0.859570)

Table 4-46 Pairwise comparisons of [θ] pronunciation according to gender and style.

Additionally, there were differences between males and females in reading style. In this style, women were 0.12 times as likely as men to produce /s/ as interdental. This is confirmed by the predicted probability in the [θ] graph, according to which males as well as females have between 0.01 and 0.02 probabilities of producing the interdental while reading out loud.

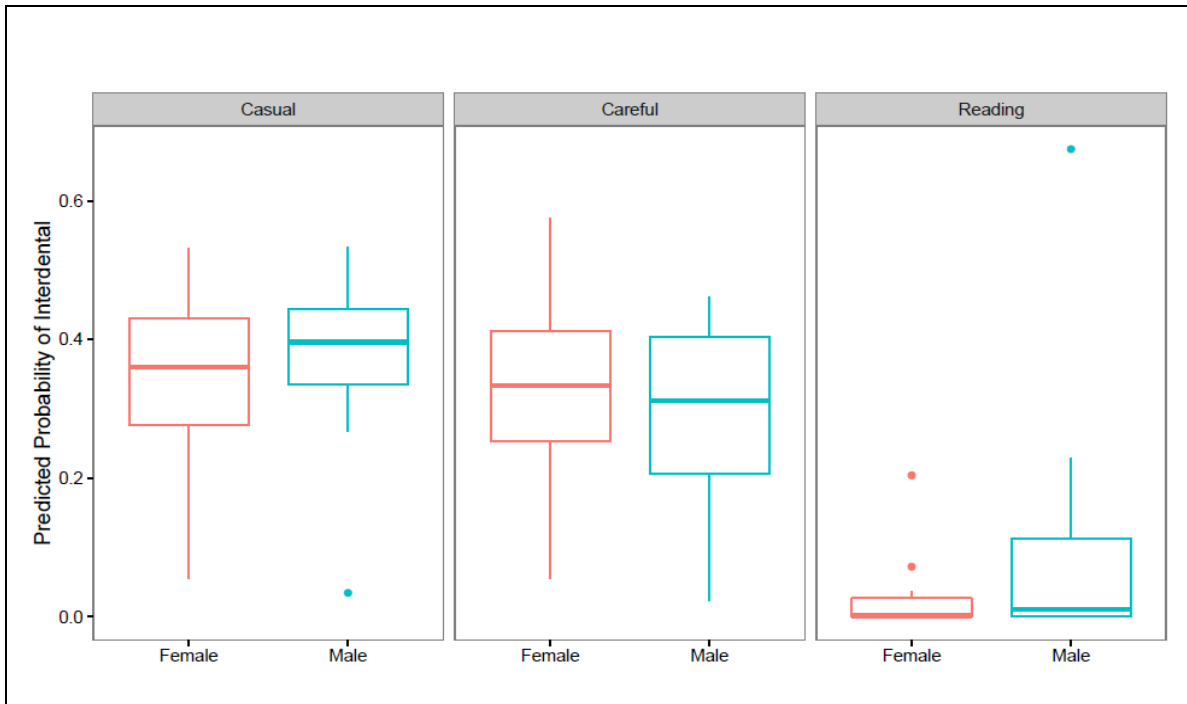


Figure 4-16 Predicted probability [θ] production across gender and style.

The graphical display of the predicted probability of the interdental (figure 4-16) shows that in casual style there are slightly more probabilities for males (~0.4) than for females (~0.36) of producing /s/ as interdental. On the contrary, in careful style, females have slightly more probabilities than males to produce the interdental. These probabilities coincide with the distribution of the interdental presented above (32% by females and 30% by males).

Recall that the part of the interview from which the data for careful style was taken was the open ended questionnaire. This questionnaire had direct questions about the pronunciation of /s/ in Tecapán and in El Salvador. The majority of women, when giving their opinion about the Spanish spoken in Tecapán compared to that of other places and/or regions of El Salvador, mainly produced the interdental and only

strategically switched to the standard /s/ (below) as if reiterating their loyalty to local norms. This type of switch was not observed in males. Such behavior could explain why it is more probable for women to produce the interdental in careful style. More specifically, in careful style, switching from [θ] to [s] was used by women to underscore differences of outside group speakers. This was the case of LI, one of the participants who expressed the strongest negative opinions about the way “Others” speak. LI,¹⁹ as seen below in example 21 (reproduced below), even insults those who use the sibilant variant of /s/ as she perceives such use to be an expression of superiority that living in the capital city bestows on them.

Based on Bucholtz and Hall’s (2004) comments, in LI’s intervention there is a perception of an identity that is shared by her and by those who live in Tecapán in opposition to “Others”, those who live in the capital city. In her characterization of Others’ way of speaking she imitates them through reported speech as a resource of identity. Günthner (2007) argues that reported speech is a resource that speakers creatively and strategically draw upon to contextualize social types and identity work (419)”. As such LI strategically switches from the [θ] to [s] in her imitation of “Others”. Lines 1, 2, 4, and 6 show instances of reported speech (sections in quotation marks). It is in these sections where she imitates Others’ speech and in doing so she switches from the interdental, to the sibilant [s].

- 1 *Caθi nadie me habla a mí “así” pero cuando vamo[h] a θan θalvador a veθe[h] por ahí por*
 2 *ejemplo con Mari, “sí pero o sea es que no sé cómo haser y no sé qué” y hay da cólera y*

¹⁹ A college educated 28 year old female participant.

3 *noθotro[h] no[h] ponemo[h] “bichoθ θeroteh” . Eθo. Aquí caθi no θe oye mucho pero en*
 4 *“san salvador sí” pero aθi e[h] cantadito cantadito bien chapetón... y e[h] que a mi θi me da*
 5 *cólera oir a alguien hablar aθi pero e[h] porque quieren aparentar, tal ve[h] en una champa*
 6 *viven pero como viven en θan θalvador quieren aparentar que hablan “así todos fresones”*

4.5.2.2. Age group and style

A distributional analysis of the variants of /s/ across age group and style (table 4-47) indicate that in casual style the interdental variant is produced the most by participants in the oldest age group followed by participants in the youngest group. The groups in between produced the interdentals less. The prestige variant [s], on the other hand, was observed somewhat more frequently in groups 15-19, 20-34, and 35-54 than in the youngest (9-14) and in the oldest group (55+), but even in the latter groups it only occurs with a frequency of 10% to 15%.

	Casual				
	Age Group 9-14	Age Group 15-19	Age Group 20-34	Age Group 35-54	Age Group 55+
[s]	4 (N=52)	10 (N=100)	15 (N=461)	14 (N=349)	7 (N=77)
[θ]	38 (N=508)	31 (N=305)	32 (N=972)	36 (N=921)	46 (N=539)
[h]	50 (N=678)	50 (N=496)	42 (N=1279)	42 (N=1077)	37 (N=435)
[∅]	8 (N=107)	9 (N=93)	10 (N=299)	8 (N=205)	10 (N=122)

Table 4-47 Distribution of /s/ across age group and casual style (%).

In careful style (table 4-48) the interdental, again, was observed more frequently in the oldest (37%) as well as the youngest group (35%). However, this time age group 35-54

produced the interdental at a rate similar to that of the 55+ group. Teenagers (15-19) and young adults (20-34) produced [θ] less frequently at rate of 26% and 24% respectively.

	Careful				
	Age Group 9-14	Age Group 15-19	Age Group 20-34	Age Group 35-54	Age Group 55+
[s]	14 (N= 10)	26 (N= 36)	25 (N= 91)	15 (N= 55)	15 (N= 25)
[θ]	35 (N= 25)	26 (N= 37)	24 (N= 89)	37 (N= 134)	37 (N= 60)
[h]	44 (N= 31)	41 (N= 57)	44 (N= 162)	41 (N= 149)	41 (N= 67)
[∅]	7 (N= 5)	7 (N= 10)	8 (N= 28)	7 (N= 27)	6 (N= 10)

Table 4-48 Distribution of /s/ across age group and careful style (%).

In reading style (table 4-49), the interdental is observed mainly in the two eldest groups. For example it occurs 16% of the time in the 55+ group and 11% in the 35-54 group. It is rarely observed in the young adults group (1%; N=11) and it is rarely produced by preadolescents and adolescents. In summary, in terms of age group, the interdental was observed in higher percentages in participants 55 years of age and older across all styles.

	Reading				
	Age Group 9-14	Age Group 15-19	Age Group 20-34	Age Group 35-54	Age Group 55+
[s]	83 (N= 377)	84 (N= 301)	64 (N= 524)	62 (N= 502)	57 (N= 199)
[θ]	0 (N= 2)	0 (N= 0)	1 (N= 11)	11 (N= 92)	16 (N= 55)
[h]	8 (N= 34)	11 (N= 38)	24 (N= 196)	20 (N= 159)	19 (N= 68)
[∅]	9 (N= 40)	6 (N= 21)	11 (N= 88)	7 (N= 57)	8 (N= 28)

Table 4-49 Distribution of /s/ across age group and reading style (%).

There were significant differences ($p < 0.05$) among several age groups across style. For example, table 4-50 shows significant differences between the youngest group (9-14) in casual style versus the 9-14; 20-34, and 35-54 age groups in reading style. Also, in reading style the 9-14 age group is significantly different from all other age groups in casual style. Differences were also observed in the teenager group (15-19). In casual style this group is significantly different from the young adults group (20-34) in reading style. In careful style teenagers were significantly different from the oldest group (55+) in casual style. Even though there were age group differences across style, the majority of the differences were observed between casual and reading styles.

A plot of the predicted probabilities of $[\Theta]$ (figure 4-17) shows that when age group is examined across style, the probabilities of producing /s/ as interdental decrease as the formality of the task increases. For example, for a speaker in the 9-14 group the probability of producing $[\Theta]$ in casual style is approximately 0.4. This probability decreases slightly to ~0.37 in careful style, but it sharply decreases to ~0.01 in reading style. Similar probabilities of occurrence were observed in all other age groups across styles. The differences between casual and reading styles, and careful and reading styles were significant for each of the age groups; in all cases there was a significant decrease in the use of the interdental in reading style (compared to casual and careful styles) and in the three youngest age groups the occurrences of $[\Theta]$ while reading was 0% to 1%. In contrast, figure 4-18 shows that the probability of producing /s/ as [s] is more than 0.75 in reading style compared to approximately 0.05 in casual style.

Pairing	Odds Estimate(95% CI)
Casual,9-14 - Reading,9-14	15.8010 (6.5821; 37.9323)
Casual,9-14 – Reading, 20-34	11.1338 (1.9932; 62.1928)
Casual 9-14 – Reading 35-54	18.1910 (1.6065; 20.5982)
Careful,9-14 - Reading,9-14	12.6485 (4.0782; 39.2291)
Careful,9-14 - Reading, 20-34	89.1225 (1.0295; 77.1490)
Reading,9-14 – Casual, 15-19	0.0001 (0.0004; 0.3157)
Reading,9-14 – Casual, 20-34	0.0005 (0.0001; 0.0143)
Reading,9-14 – Careful, 20-34	0.0006 (0.0008; 0.1754)
Reading,9-14 – Casual, 35-54	0.0006 (0.0002; 0.1856)
Reading,9-14 – Careful, 35-54	0.0006 (0.0002; 0.1998)
Reading,9-14 – Casual, 55+	0.0002 (0.0007; 0.0600)
Reading,9-14 – Careful, 55+	0.0003 (0.0002; 0.1083)
Reading,9-14 – Reading, 55+	0.0003 (0.0003; 0.4085)
Casual, 15-19 - Reading, 20-34	62.3415 (1.0857; 35.7961)
Careful, 15-19 – Casual 55+	0.0057 (0.0005; 0.05915)
Casual, 20-34 – Reading 20-34	13.9838 (3.6082; 54.1946)
Casual, 20-34 – Reading 35-54	22.8476 (3.2248; 16.1871)
Careful,20-34 - Reading,20-34	11.6717 (2.8438; 47.9022)
Careful 20-34 – Reading, 35-54	19.0610 (2.4160; 15.0521)
Reading 20-34- Casual, 35-54	0.0009 (0.0002; 0.04020)
Reading 20-34- Careful, 35-54	0.0009 (0.0002; 0.0435)
Reading 20-34- Casual, 55+	0.0003 (0.0001; 0.0149)
Reading 20-34- Careful, 55+	0.0005 (0.0009; 0.2794)
Casual,35-54 - Reading, 35-54	17.96913 (9.0516; 99.1795)
Careful,35-54 - Reading, 35-54	17.05771 (2.8006; 10.3894)
Reading, 35-54 – Casual, 55+	0.0086 (0.0002; 0.1661)
Reading, 35-54 – Careful, 55+	0.0032 (0.0003; 0.3613)
Casual,55+ - Reading, 55+	18.57717 (2.4418; 14.1335)
Careful, 55+ - Reading, 55+	10.77973 (6.9342; 95.5017)

Table 4-50 Pairwise comparisons of [Ø] pronunciation across age group and style.

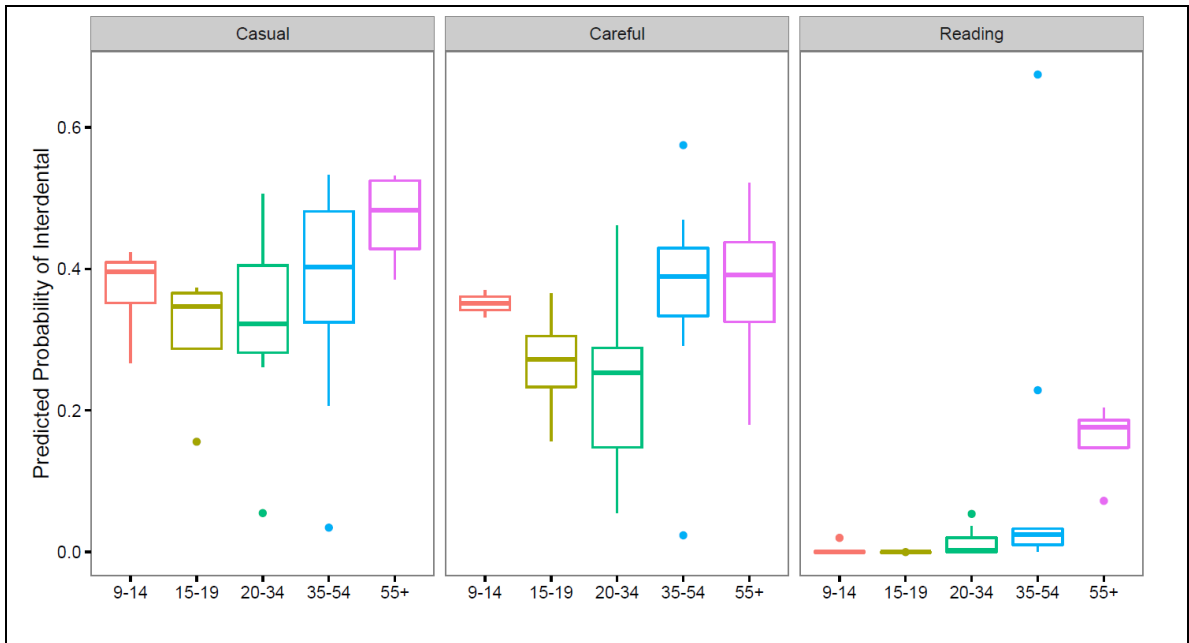


Figure 4-17 Predicted probabilities of [θ] production across age group and style.

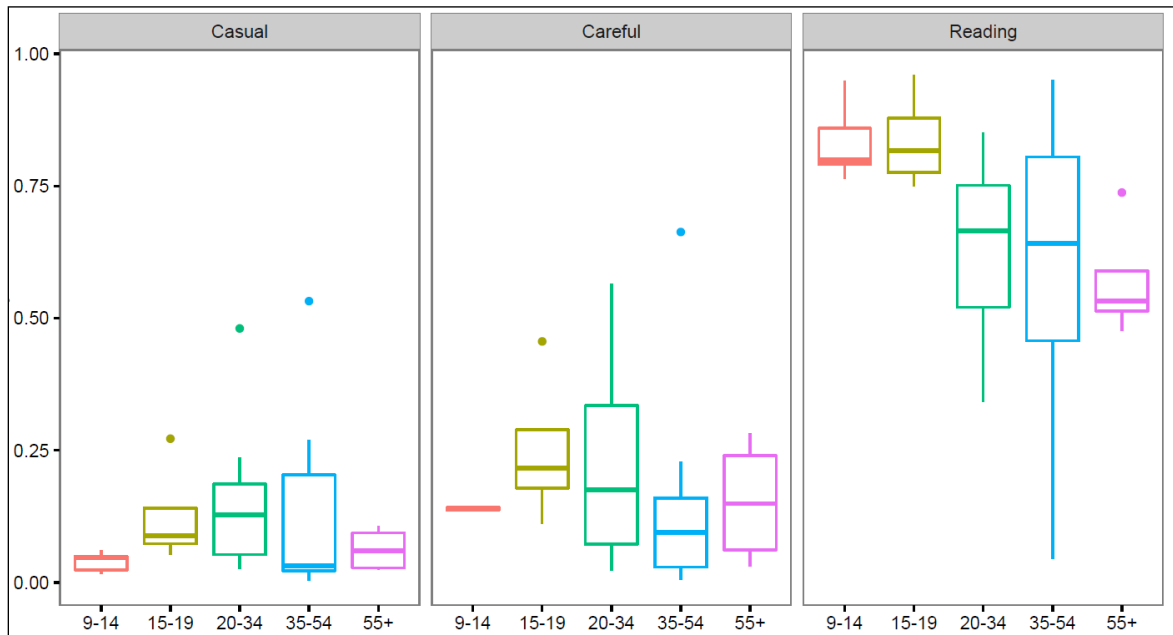


Figure 4-18 Predicted probability of [s] production across age group and style.

4.2.2.3. Occupation and style

The distribution of the interdental across occupation and style also shows lower percentages of interdental production as the formality increases. For example, in casual style the interdental remains stable throughout the first three categories at an average of 38%. In the same style, professionals and civil servants (occupation 4) produced the interdental 19% of the time (table 4-51). In careful style these percentages decrease slightly to 36% in the first two occupation categories, to 27% in the third occupation category, and to 18% in the fourth occupation category (table 4-52). It is in the reading task where the largest declines in the production of the interdental are observed. For example, participants in the first category only produced [θ] 5% of the time. Furthermore, it was produced 3%, 12%, and 4% by those in the other three occupation categories (table 4-53). The opposite trend is observed in the production of [s], since its production increases as the formality increases.

	Casual style			
	Occupation 1	Occupation 2	Occupation 3	Occupation 4
[s]	8 (N=270)	5 (N=144)	12 (N=233)	32 (N=392)
[θ]	38 (N=1255)	38 (N=1011)	39 (N=744)	19 (N=235)
[h]	44 (N=1460)	48 (N=1278)	40 (N=754)	39 (N=472)
[∅]	10 (N=347)	8 (N=210)	8 (N=158)	9 (N=111)

Table 4-51 Distribution of /s/ across occupation and casual style (%).

	Careful Style			
	Occupation 1	Occupation 2	Occupation 3	Occupation 4
[s]	13 (N= 51)	16 (N= 41)	20 (N= 56)	42 (N= 69)
[θ]	36 (N=147)	36 (N= 92)	27 (N= 76)	18 (N= 30)
[h]	42 (N=172)	41 (N= 105)	47 (N= 133)	34 (N= 56)
[∅]	9 (N=35)	7 (N= 17)	7 (N= 20)	5 (N= 8)

Table 4-52 Distribution of /s/ across occupation and careful style (%).

	Reading Style			
	Occupation 1	Occupation 2	Occupation 3	Occupation 4
[s]	71 (N= 630)	75 (N= 671)	57 (N= 361)	65 (N= 241)
[θ]	5 (N= 45)	3 (N= 24)	12 (N= 75)	4 (N= 16)
[h]	15 (N= 137)	13 (N= 119)	24 (N= 150)	24 (N= 89)
[∅]	8 (N= 75)	9 (N= 81)	8 (N= 52)	7 (N= 26)

Table 4-53 Distribution of /s/ across occupation and reading style (%).

Pairwise comparisons between the different levels of occupation and style indicated that there were only three significant differences in the production of the interdental. The first difference was observed between occupation group 1 (e.g.: farm worker, unemployed, housewife) in casual style and between occupation group 3 (Artisan, bus. owner, clerk) in careful style (table 4-54). Specifically, in casual style, a speaker in occupation 1 is 5.14 times more likely than someone in group 3 to produce the interdental in careful style. Likewise, there was also a significant difference in the production of the interdental between two occupations within casual style, specifically

between occupation 1 and occupation 4 (e.g.: Professional, manager, civil servant). In this style a speaker in occupation 1 is 5.58 times more likely than a speaker in occupation 4 to pronounce /s/ as [θ]. A third difference was observed between occupation category 3 in casual versus and the same group in careful style. For example, in casual style artisans and business owners are 3.67 times more likely than in careful style to produce /s/ as interdental.

Pairing	Odds Estimate(95% CI)
(1) Casual, (Manual, unemp) - Careful, (Artisan, bus. owner, clerk)	5.141032 (1.1930; 22.1543)
(2) Casual, (Manual, unemp) - Casual, (Professional, manager, civil)	5.587536 (1.0663; 29.2771)
(3) Casual (Artisan, bus. owner) - Careful (Artisan, bus. owner)	3.6773 (1.3205; 11.0241)

Table 4-54 Pairwise comparisons of [θ] pronunciation according to occupation and style.

Figure 4-19 shows that the probabilities of producing the interdental decrease as both the occupation and the formality of the style increases. For example, in casual style, a participant in occupation 4 has ~0.17 probabilities of producing /s/ as interdental. This probability is reduced to ~0.15 in careful style. In reading style, a participant in this occupational category has only ~0.01 probabilities of producing /s/ as interdental.

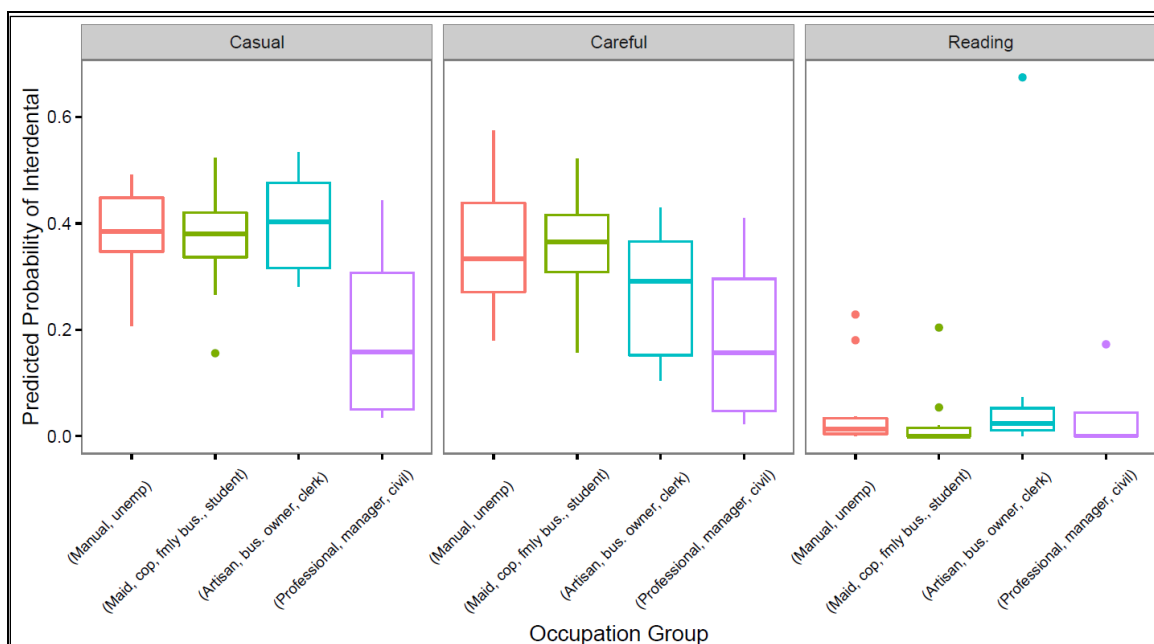


Figure 4-19 Predicted probabilities of [θ] production across occupation and style.

4.5.2.4. Education and style

Though the overall distribution of the interdental across education and style decreases as formality increases, percentages of production within the first three education groups remain relatively steady across casual and careful styles in comparison to the fourth group, where lower percentages of realizations are observed. For example, in casual style (table 4-55), [θ] is produced 38%, 37%, and 39% in the first three groups respectively. The percentage of production of [θ] is lower in participants in group 4 (25%). Similarly, in the first 3 groups in careful style (table 4-56), the interdental is produced 33%, 32%, and 36% respectively. Participants in education group 4 produced the interdental at a rate of 18%. In reading style (table 4-57), the production varied more than in the other two styles, yet higher percentages were observed in the first three groups

(6%, 9%, 4% respectively) compared to participants with college education (education 4= 1%). These differences, however, were not significant based on pairwise comparisons.

	Casual Style			
	Education 1	Education 2	Education 3	Education 4
[s]	7 (N=144)	7 (N=188)	11 (N=302)	27 (N=404)
[θ]	38 (N=764)	37 (N=1057)	39 (N=1040)	25 (N=384)
[h]	45 (N=898)	47 (N=1365)	41 (N=1105)	39 (N=596)
[∅]	9 (N=181)	9 (N=271)	9 (N=245)	9 (N=129)

Table 4-55 Distribution of /s/ across education and casual style (%).

	Careful Style			
	Education 1	Education 2	Education 3	Education 4
[s]	14 (N= 27)	15 (N= 52)	17 (N= 62)	37 (N= 76)
[θ]	33 (N= 65)	32 (N= 112)	36 (N= 132)	18 (N= 36)
[h]	44 (N= 87)	44 (N= 153)	40 (N= 144)	40 (N= 82)
[∅]	9 (N= 18)	8 (N= 28)	7 (N= 25)	4 (N= 9)

Table 4-56 Distribution of /s/ across education and careful style (%).

	Reading Style			
	Education 1	Education 2	Education 3	Education 4
[s]	70 (N= 371)	69 (N= 683)	72 (N= 581)	59 (N= 268)
[θ]	6 (N= 33)	9 (N= 91)	4 (N= 31)	1 (N= 5)
[h]	12 (N= 66)	15 (N= 149)	17 (N= 137)	31 (N= 143)
[∅]	11 (N= 59)	7 (N= 70)	8 (N= 63)	9 (N= 42)

Table 4-57 Distribution of /s/ across education and reading style (%).

When looking at the predicted probabilities of the interdental across education and style, figure 4-20 indicates that there seems to be a larger variation within casual and careful styles for group four than in the other three groups. For example, in casual style the lowest data point of the box that represents the fourth group is 0.05. The highest data point is 0.5, and a data range of 0.45. In contrast, in the same style, the box that represents group two (e.g.: high school graduates) shows 0.3 as the lowest data point. 0.42 as the highest data point, and a range of only 0.12. **Error! Reference source not found.** also shows that even though the interdental was produced in the most formal style, the probabilities of its occurrence are as low as ~0.02.

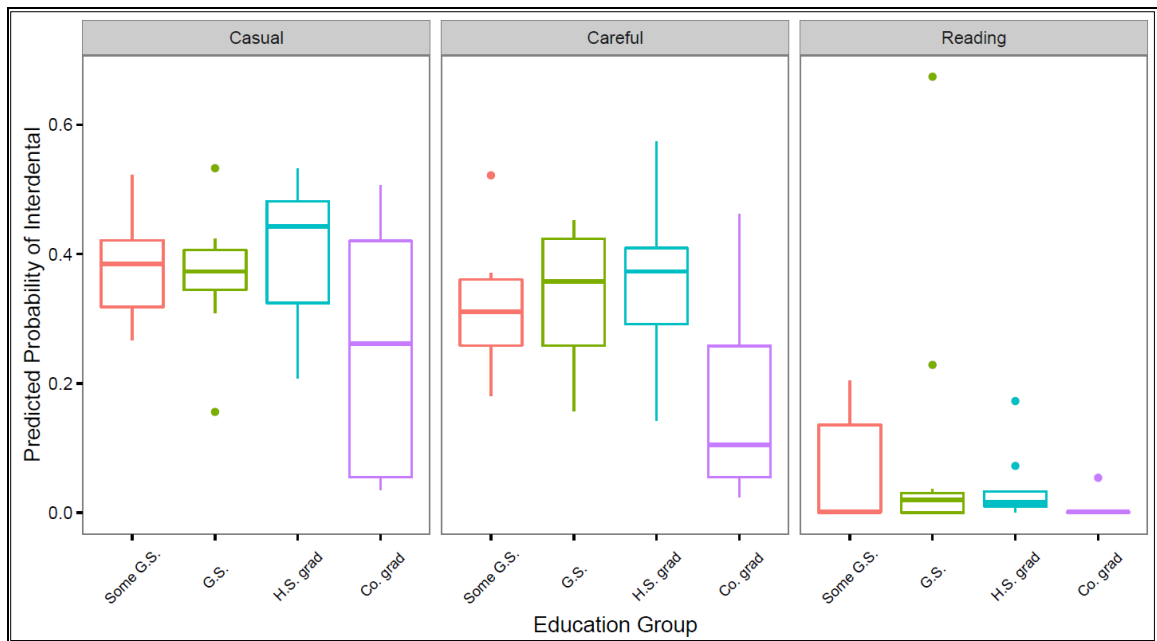


Figure 4-20 Predicted probabilities of [θ] production across education and style.

4.5.2.5. Income and style

The overall trend that can be observed when the distribution of the interdental is examined across income and style is, as with all other social factors considered, less production of the interdental as the formality of the task increases (table 4-58 to table 4-60). It can also be observed that in all styles those participants who earn less than the minimum wage (Income 1) produced more interdentals than those with the highest income (Income 5). For example in casual style participants in group 1 produced the interdental at a rate of 39% compared to 31% produced by speakers in group 5. Similarly, in careful style participants in group 1 produced it 35% and those in group 5 only 22%. Furthermore, in reading style, participants in group 1 produced it 7% compared to 3% in group 5. In regard to group 3, these participants produced the interdental more than group 2 and group 4 in careful and in reading style.

	Casual Style				
	Income 1	Income 2	Income 3	Income 4	Income 5
[s]	7 (N=132)	9 (N=106)	11 (N=189)	11 (N=262)	19 (N=350)
[θ]	39 (N=748)	41 (N=499)	39 (N=685)	32 (N=756)	31 (N=557)
[h]	45 (N=871)	43 (N=531)	41 (N=718)	47 (N=1112)	40 (N=732)
[∅]	10 (N=187)	7 (N=89)	9 (N=154)	9 (N=219)	10 (N=177)

Table 4-58 Distribution of /s/ across income and reading style (%).

	Careful				
	Income 1	Income 2	Income 3	Income 4	Income 5
[s]	11 (N= 18)	23 (N= 28)	12 (N= 26)	20 (N= 70)	32 (N= 75)
[Ø]	35 (N= 59)	34 (N= 41)	37 (N= 83)	31 (N= 110)	22 (N= 52)
[h]	45 (N= 76)	37 (N= 45)	46 (N= 104)	41 (N= 147)	40 (N= 94)
[Ø]	9 (N= 15)	7 (N= 8)	6 (N= 13)	8 (N= 29)	6 (N= 15)

Table 4-59 Distribution of /s/ across income and reading style (%).

	Reading				
	Income 1	Income 2	Income 3	Income 4	Income 5
[s]	71 (N= 375)	82 (N= 300)	57 (N= 304)	70 (N= 566)	65 (N= 358)
[Ø]	7 (N= 38)	0 (N= 1)	14 (N= 78)	3 (N= 25)	3 (N= 18)
[h]	13 (N= 68)	11 (N= 42)	19 (N= 104)	19 (N= 153)	23 (N= 128)
[Ø]	9 (N= 49)	6 (N= 23)	10 (N= 52)	8 (N= 63)	9 (N= 47)

Table 4-60 Distribution of /s/ across income and reading style (%).

A pairwise test of significance indicated that there was only one significant interaction between income and style (table 4-61). In reading style, a speaker whose income is less than the minimum wage (\$117.58) is 0.012 times more likely to produce /s/ as interdental than a speaker who earns less than national median but above the minimum wage.

Pairing	Odds Estimate (95% CI)
(1) Reading, Income 1 (Min. wage) - Reading, Income 3 (below median above min. wage)	0.0129 (0.0002; 0.8933)

Table 4-61 Pairwise comparisons of [Ø] pronunciation according income and style.

Figure 4-21 coincides with previous predicted probabilities graphs in that as the formality of the task increases the probabilities of [θ] occurrences decrease. For example, a participant who earns less than the minimum wage has approximately 0.4 probabilities of producing the interdental in casual style, however, this person has only ~0.02 probabilities of producing the interdental in reading style. Finally, though not statistically significant, the differences across groups seem to be in group 1 and 5 in which there is a larger decrease between casual and careful speech than in the other three groups.

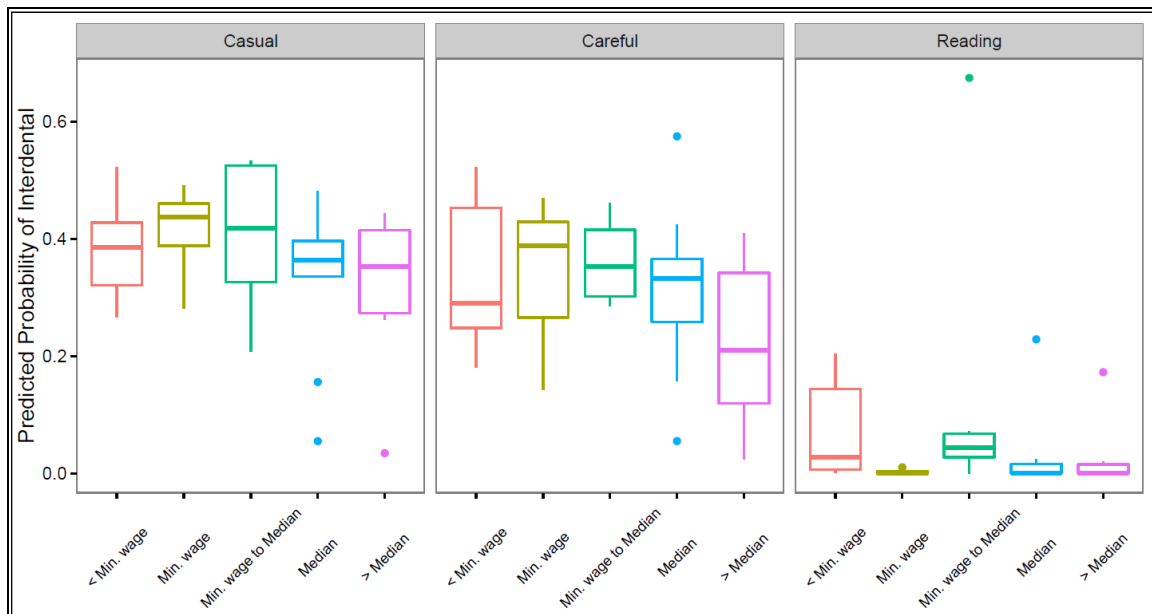


Figure 4-21 Predicted probabilities of [θ] production across income and style.

In summary, there were significant differences between style and all social factors except education. Overall, the distribution as well as the probabilities of /s/ pronunciation indicated that there is a decrease in the production of the interdental as the formality of the tasks increased. Therefore, across social the categories considered

(gender, age group, occupation, education, and income) the interdental occurred the most in casual style. The production of the interdental decreased in careful style and reached its lowest number of occurrences in reading style. In contrast, the production of the sibilant [s] increased with the formality of the tasks. In regard to gender, males have more probabilities than women of producing the interdental in all styles except in careful style, where, women have more probabilities of producing the interdental than males. As for age groups, there were statistically significant differences within age groups in casual versus reading style as well as in careful versus reading style. There were also significant differences between occupation and style. In casual style, participants in a low occupational category were more likely to produce the interdental than those in a high occupational category. There were no significant differences between education and style. There was one significant difference between income and style, specifically in reading style. In this style speakers in the lowest income category are more likely to produce the interdental than those in the middle category.

The patterns that have emerged after comparing social and stylistic factors and that have been outlined in the previous sections reveal certain characteristics that indicate that the interdental is a stable feature in the Spanish of this community. One of the characteristics indicating that the interdental variant is stable is that there is a relationship between style and social factors. Specifically, the interdental is used more in the lowest occupational, educational, and income categories, as such, each increase in a particular category is associated with a decrease in the use of the interdental. Additionally, the interdental is used more in the least formal styles across all social groups, therefore, each

increase in formality is accompanied by a decrease in the use of the interdental. In contrast, speakers used the prestigious variant more frequently in more formal styles than in casual style. In regard to gender, males used the interdental more than females (except in careful style, but the difference was not significant); and females used more the prestige variant than males. Another indication that the interdental is a stable variant and can be explained in terms of age is that speakers in two of the middle age groups (15-19; 20-34) produced this variant less compared to the youngest and oldest two groups which showed higher rates of occurrences (table 4-30). This behavior suggests that this variant is stigmatized and that the u-shape pattern of interdental use is associated with an age grading phenomena which is also indicative of stable variation.

4.6. Linguistic attitudes toward [θ]: A qualitative analysis

In this section I present the answer to the third research question. Specifically, I present the results of a qualitative analysis through which I sought to discover the reasons that motivate participants to produce /s/ as interdental. The data for this section comes from the open-ended questions²⁰ answered by 30 (15 females and 15 males) of the 32 participants. The questionnaires had four sections. The first section gathered information about the participant's attitudes toward their own town, such as whether they enjoyed living there. The second section was intended to gather information about participants'

²⁰ After interviewing the first 7 participants, I decided not to show the map (see section 3.3.4.1) as participants seemed not to understand the task and/or were unable to perform the task due, in some instances, to lack of knowledge of the national geography. Instead, I integrated those questions into the open-ended questionnaire.

social networks. The third section contained questions about the role of education in their lives. The last section contained explicit questions about participant's attitudes toward the variety of Spanish they spoke. I mainly report on answers from section one and from section four of the questionnaire. Data from sections two and three was used to support arguments as needed.

As shown in table 4-62, of the 30 participants, 25 (83%) were born and raised in Tecapán and 5 (17%) were born in a community other than Tecapán, but, within the same geographical region (eastern El Salvador). These 5 participants had lived continuously in Tecapán for more than 10 years. Of the total number of participants, 53.4% expressed that they liked living in Tecapán and that they would not live in another place. 46.6% would live in another place, specifically, in the capital city, San Salvador, and/or in the U.S. Out of those who would like to live in another place, the youngest three groups were the ones that lead in their desire to live somewhere else. When asked for the reasons they would live in another place, these participants mentioned the lack of job opportunities, the lack of economic resources to attend college as well as the violence and insecurity generated by gangs. These attitudes may contribute to the fact that two of these three groups (15-19 and 20-34) produced the lowest percentages of /s/ as [θ] (see table 4-30). Those over thirty-five tend to not want to live elsewhere. The majority of them (50%; N=7) are business owners, while one person is a retired teacher and another one has a permanent job in the city hall. More than a third (36%; N=5) receive their income from relatives living in the U.S.

	9-14	15-19	20-34	35-54	55+
Would not live in another place	33% (N=1)	0.0% (N=0)	44% (N=4)	89% (N=8)	60% (N=3)
Would live in another place	67% (N=2)	100% (N=4)	56% (N=5)	11% (N=1)	40% (N=2)

Table 4-62 Answers to the question: Would you like to live in another place? (According to age group).

Those who would not like to live in another place expressed that Tecapán was a good place to raise children, however, they said it would be a better place without gangs. Both old and young, remembered this town as a peaceful and as a good place to live in up until the point where gangs started to disrupt it in approximately 2012. For example, RD, a 12 year old said:

(10) *...antes este pueblo era sano porque que no había maras nada de eso y ahora solo de eso casi abunda. Que yo me acuerde este pueblo ni bulla se escuchaba de eso. Si estas bullas empezaron hace casi dos años...sí...y...este... que me siento inseguro, que me puede pasar algo, que le puede pasar algo a alguien.*

This town used to be safe because there were no gangs or nothing like that and now that abounds. As far as I remember in this town you would not even hear about them. This started almost two years ago...yes...and I feel insecure because something may happen to me or to someone else.

As a consequence, more members of the community, including many children, teenagers, and young adults, have emigrated and are still emigrating mainly to the United States. According to the Salvadoran digital newspaper *La Página*, in 2014 approximately 276 Salvadorans per day leave El Salvador for the United States.²¹

²¹ According to the Migration Policy Institute “The number of unaccompanied minors (also known as UACs) crossing the U.S.-Mexico border increased 90 percent between 2013 and 2014.

4.6.1. Spanish spoken in El Salvador: Opinions

When participants were asked whether or not they felt people spoke the same all over the country, 24.3% expressed they had not thought about it. A small percentage (3.4%) of participants felt that all Salvadorans spoke the same and 6.8 % said that people spoke almost the same. On the other hand, the majority of participants (65.5%) felt there were differences in the way Salvadorans speak. Specifically, participants conceive these differences in terms of word use and in terms of pronunciation. For example, in regard to differences in word use, participants made the following observations:

- (11) (a) *Hay bastantes palabras (aquí) que ni por cerca las conocen allá.* (AD, 15-19)

There are a lot of words [here] that are not known there

- (b) *Ellos dicen palabras que uno no las sabe vea.* (CG, 20-34)

They say words that one does not know.

- (c) *Las palabras no las dicen igual que nosotros.* (CM, 35-54)

They do not say the words like we do

- (d) *Hay muchas palabras que cambian sobretodo.* (KS, 20-34)

There are many words that change overall

- (e) *...nosotros acá a la charamusca²² pues le decimos así, allá²³ es topoyiyo²⁴.* (RB, 34-54)

²² A frozen snack packed in a small (~3in x 6in) clear plastic bag.

²³ RB is referring to Sonsonate and Santa Ana two cities located in the western region of El Salvador.

²⁴ Also written as “topogigio”

...here, we say charamusca, over there they say topoyiyo.

In addition to perceiving differences in terms of word use, participants expressed the following thoughts when talking about differences in pronunciation, which they characterized as “a different accent” and as differences in ‘s’ pronunciation:

(12) (a) *Existen diferencias de cómo se habla en la zona, el acento, (DG, 20-34)*

There exist differences in how people speak in the region, the accent

(b) *Él dice que allá la gente tiene otro acento como que si no fuéramos del mismo país.*

(JA, 20-34)

He says that over there people have a different accent as if we were not from the same country

(d) *dicen silbadas como las eses. (AR, 55+)*

They whistle when they say their ‘s’

(f) *ellos pronuncian bastante la ese. (AG, 35-54)*

They pronounce the ‘s’ rather stronger.

Based on the comments above, it seems that participants do perceive differences in the way their Spanish variety is spoken. These comments also reveal that in the imaginary of these speakers there is clear dialectal zone “*allá*”²⁵ ‘over there’ (the western region and also San Salvador) where people “use different words”, where people “have a different

²⁵ *Allá* ‘over there’ that was used specifically to refer to the western region (example 11e) or to the capital city San Salvador (example 19a). In the latter example participant NP stated...*de allá vienen de la capital* ‘they come from over there, from the capital’

accent”, and where people “pronounce the ‘s’ rather stronger”. Furthermore, these comments reveal that these speakers perceive a much stronger pronunciation of the sibilant (examples 12d and 12f) variant as one of characteristics that distinguishes their Spanish from that of the western region and San Salvador.

4.6.2. Spanish spoken in Tecapán: Is it different?

In addition to perceiving differences in the way Spanish is spoken in El Salvador, speakers from Tecapán also perceive differences in the way Spanish is spoken in Tecapán compared to the rest of the country, specifically compared to San Salvador and the western regions. Participants referred to these differences using terms that ranged from positive to negative (table 4-63). For example, 17% expressed that the Spanish spoken in Tecapán was humble because they do not say words in a pretentious way, as exemplified in (13):

(13) *Creo que nosotros [hablamos] como que más humilde porque no mencionamos palabras así maliciosas (AR, 55+)*

I believe we [speak] like more humble because we do not use pretentious words.

Eight percent of participants thought that the Spanish spoken in Tecapán was “simple” meaning that it was clear and straightforward without the use of sophisticated words. JJ, for example, stated:

(14) *[Aquí] no se utilizan terminologías rebuscadas porque el ambiente no lo permite. Diferente a San Salvador porque los conocimientos que allá se tienen son distintos a los de aquí. La gente se expresa más fácilmente [allá]. Puede haber una persona que hable con facilidad en un pueblo pero la persona de aquí, común, habla un lenguaje sencillo. (JI, 55+)*

[Here] people do not use pretentious terminology because the environment does not allow it. This is different in San Salvador because the knowledges they possess are different from those here. People talk easily over there. It is possible for a person to express their thoughts easily in a small town, but the average person from here speaks a simple language.

Twenty-nine percent said that they considered that their Spanish is “normal” because they are able to understand each other (example 15).

(15) *...aquí hablamos igual. Hablamos normal porque nos entendemos. (CM, 35-54)*

...we all speak the same here. We talk normal because we are able to understand each other.

Humble	17%
Simple	8%
Do not use 's' as much	8%
Normal	29%
Incorrect	17%
Uneducated	21%

Table 4-63 Characterizations of the Spanish spoken in Tecapán.

Another 8% said that the Spanish of Tecapán is different because they do not pronounce ‘s’ as much as in other places. This is confirmed by the rates of production of /s/ variants in Tecapán vs. /s/ variants reported in previous studies. For example, in Lipski (1985) the rate of [s] production in San Salvador is 40.05% in contrast to only

11.45% in Tecapán. This large difference in the production of the sibilant indicates a salient difference for those in Tecapán. The rates of aspiration and deletion are fairly comparable for San Salvador and Tecapán, for example, there is only a slightly higher frequency of aspiration in San Salvador (48.26%) compared to 43.69% in Tecapán. Similarly, the rate of deletion in San Salvador is 10.98% compared to 9.01 in Tecapán.

Finally, in terms of perceived differences between the Spanish spoken in Tecapán vs. the Spanish spoken in other places, some participants referred to perceived differences in a negative way. For example, 17% of participants said that the Spanish spoken in Tecapán was “incorrect” while 21% considered it “uneducated”.

4.6.3. Evaluations: The Spanish of Tecapán vs. the Spanish of other places

When participants were asked to evaluate the Spanish spoken in other regions, the majority of the time they characterized it with positive terms (table 4-64). For example, 11% of participants said that the Spanish spoken in other places was “better, more refined, or more delicate” (Example 16a-16b). It was also said that it was “more educated” (7%), and “more civilized” (2%; examples 16c-16d), consequently others “express themselves better” than “us” (4%; example 16d-16e):

Weird	6%
Pretentious/ <i>Chapetón/a</i>	12%
Better/finer/more delicate	11%
More educated to talk	7%
More civilized	2%
's' pronunciation	24%
Different accent	10%
Express themselves better	4%
Different words	23%

Table 4-64 Characterizations of the Spanish spoken in other places.

- (16) (a) *Siento que es como con más lujo con más delicadeza, aquí... a veces aquí somos más malcriados que allá vea pero sí hablan bien diferente a uno aquí para hacer todo, para todo son bien delicados, a nosotros nos da igual.* (FE, 20-34)

I feel that it is like with more luxury with more delicacy, here... sometimes we use more bad language here than over there, but they do speak different from one here, they are more delicate in everything they do, to us it is not that important.

- (b) *...hay salvadoreños que hablan más afinado. Otros lo hablan más caliche.* (LC, 20-34)²⁶

There are Salvadorans that speak in a more refined way. Others speak it badly.

- (c) *... ellos sí saben hablar un poquito más mejor que nosotros... ellos saben palabras que uno no sabe. No sé, como que son más civilizados para hablar... no cometen tantos errores y nosotros sí.* (CG, 20-34)

...They do talk a little bit better than us...they know words that we do not know. I don't know, it's like they are more civilized to talk...they do not make as many errors like we do.

²⁶ Caliche: word used in El Salvador to refer to uneducated talk

(d)... *son más civilizados para hablar...* (CG, 20-34)

They are more civilized talking

(e) *Es más distinto porque por ejemplo mis primos [que viven en San Salvador] hablan más raro. Siento que es mejor como se expresan que nosotros. Sí porque hay palabras que no sé... yo allí de como escucho a mis tíos a mis primos he aprendido bastantes palabras que nunca las había escuchado casi nadie lo dice aquí en cambio allá sí y que allá son más diferentes.* (MB, 15-19)

It is different because for example my cousins [who live in San Salvador²⁷] speak weird. I feel that they express themselves better than us. Yes, because there are words that I do not know... I have learned a lot of words that I had never heard, from my uncles and cousins. Almost nobody says those word here, but they do over there where they are more different.

The difference in the way of talking was also expressed in terms of the way in which ‘s’ was pronounced; this happened 24% of the time. This aspect also related to the characterization of others’ Spanish as being “better” because in other places people do pronounce the ‘s’ rather stronger. For example participant NP said:

(17) (a) *Sí hablan bien [la gente de San Salvador] porque pronuncian la ese bastante.* (NP, 35-54)

They do speak a good Spanish because they pronounce the ‘s’ rather stronger.

Even though the majority of speakers positively evaluated the Spanish spoken in other places, twelve percent of speakers had strong negative attitudes toward it. Two adjectives

²⁷ San Salvador: capital city located in the central region of the country

were used to characterize such attitudes: “*malicioso/a*”²⁸ and *chapelón/a*.”²⁹ After looking for the meaning of *chapelón/a* in several *Diccionarios de salvadoreñismos*,³⁰ I did not find a definition of the term. I did find a definition in the dictionary of the Royal Spanish Academy. However, that definition did not reflect the meaning intended by the participants in my study, who defined it as a term used to refer to those who pronounce the ‘s’ sound with salience and/or to refer to a perceived attitude of superiority on the part of speakers mainly from other regions (the western region and San Salvador). As mentioned above, the terms pretentious and/or *chapelón/a* were used by 12% of participants from the oldest age groups (20-34; 35-54; 55+) in opposition to the “humbleness” of the Spanish spoken in the community. For instance, AR (example 18) and LI (example 21) had the strongest negative opinions about the Spanish spoken in other places:

- (18) *Creo que nosotros [hablamos] como que más humilde porque no mencionamos palabras así maliciosas... por ejemplo cuando la gente menciona así las palabras silbadas como la ese es más más así maliciosa. (AR, 55+)*

I believe we [speak] in a more humble way because we do not say pretentious words...like when people whistle the ‘s’ in words, it is more pretentious

²⁸ Pretentious talking.

²⁹ Defined in the Royal Spanish Academy dictionary as an adjective used in the colonial and early Independence period in the Americas to refer to a person born in Europe, especially from Spain, who had recently arrived.

³⁰ Dictionaries of linguistic features particular to Salvadoran Spanish (e.g.: Schneider (1961); Geoffroy Rivas (1998); Romero (2005).

Three other participants (19a to 19c) expressed perceived differences in a more neutral way:

- (19) (a) *Algunas [personas] que vienen para las vacaciones pues que son que hablan bien chapetones. Bien se conoce que de allá vienen de la capital dice uno porque hablan bien chapetones pronuncian la ese más....* (NP, 35-54)

Some [people] that come for vacation are those who speak very pretentiously. You can tell they come from over there, from the capital because they pronounce the ‘s’ rather stronger.

- (b) *... a veces con eso de la ese lo que uno dice: “ve esa es bien maliciosa para hablar toda chapetona” dice* (MM, 35-54)

...sometimes with the pronunciation of the ‘s’ one says: “look how pretentious she is talking”

- (c) *[D]onde yo calculaba que tenían un habladito así más o menos, algo como cantadito es en Ahuachapán³¹ un habladito no sé como cantadito como rapidito así bien distinto, pero en esta zona cerca no creo que aquí por La Unión³².* (RI, 35-54)

Where I thought they had a different way of talking, like a sing-song, is in Ahuachapán, I don’t know, like a sing-song, like a faster rhythm, very different; but in this region, La Unión, I do not think so.

The fact that speakers consider that the variety spoken in other places is better than their own, yet they still use the interdental in their speech indicates that [θ], though stigmatized, is positively valued by many members of this community. The interdental,

³¹ A city in the western region of El Salvador

³² A city in the eastern region of El Salvador

then, possesses covert prestige (Labov 1966; 2005; Trudgill 1972). The standard [s] seems to be overtly acknowledged as “correct” and highly valued by the majority of these speakers.

We have seen that the interdental, which occurs at a rate of 36%, is positively valued by some members in this community in contrast to a pretentious and/or *chapelón* way of speaking from other parts, in particular San Salvador and the western region of the country. This way of speaking implies the use of [s] which in this community is only observed at an 11% rate versus a 58% rate in Hoffman’s (2010) study so there is a large difference in the expression of [s]. In contrast, rates of aspiration and/or deletion in Hoffman’s and in the present study are somewhat comparable as she reports a 42% rate of weakening and in the present study this rate is 53%. Aspiration and deletion have been reported in all studies to date. Maxwell (1980) states that aspiration is one of the outstanding characteristics of Salvadoran Spanish. Additionally, in Hoffman (2010) participants identified aspiration as a characteristic of Salvadoran Spanish as well. Therefore, the largest differences appear to be in the retention of [s] versus the use of the interdental.

4.6.4. What do you think of the differences?

When participants were asked what they thought about these differences (in word use and pronunciation) the majority (67%; N=20; table 4-65) said that it did not bother them to hear these differences in speakers from other parts of El Salvador. A percentage within these participants (7%), however, did express strong negative feelings about

differences of word use as well as ‘s’ use when they were produced by Tecapanecos who had, at one point, left the town (either for the capital city or the States) and when returning, they displayed the speech differences in question (see examples 20a and 20b). Additionally, one of the participants (NP) not only had negative feelings about this particular situation, but also, to show her contempt, she switched from the interdental to [s] when imitating the speech of those who had lived in the capital city or in the U.S. and returned with their speech changed. The attitudes displayed by this 7%, thus, show that Tecapanecos accept differences in speech when they deem those differences natural to the speaker. It also shows that they reject those differences when they are produced by members of their community who attempt to “speak better” by incorporating into their speech linguistic features (word use and ‘s’ salience) from other geographic areas.

Like it	14% (N=4)
Does not bother me	67% (N=20)
It bothers me	19% (N=6)

Table 4-65 Opinions about the Spanish spoken in other places.

- (20) (a) *Me da cólera cuando hablan todos chapetoneh, yo les digo, aprendé a hablar como noθotroh.*
(IE, 55+)

It makes me angry when they talk like chapetones, I tell them: learn to talk like us

- (b) *Gente que [h]e va para EU y no han paθado y vienen hablando “oh”. Tal ve[h] ahí nomá[h] llegaron y ya vienen hablando “oh sí”. E[h]o θí me mole[h]ta y ni θiquiera conoθieron y andan “oh sí oh sí verá”. Digo yo... me mole[h]ta θiento que θe quieren igualar a... e[h]to e[h]*

unoØ día[h] y ya no digamo[h] un montón de tiempo. La[h] perθona[h] que θon naθida[h] en el lugar [refiriéndose a lugares donde la ‘s’ se pronuncia más] e[h] lógico que hablen aθi. (NP, 35-54)

Those who have failed in their attempt to cross to the U.S. they come talking like “oh”. They probably did not even get that far and when they come back they come saying “oh yes” [pronounced with a sibilant]. That really bothers me and they did not even get to know the place and they go “oh yes oh yes you’ll see” [pronounced with sibilants]. I say...it bothers me, I feel that they want to be at the same level as...this happens in a matter of days, what would happen in a longer period of time? Those who were born in the place [referring to places where the ‘s’ is pronounced with salience], it is logic for them to talk like that.

In addition to the group described above, which accepts or rejects the speech differences depending on the origin of the speaker, there is also a significant percentage who completely reject the differences in pronunciation. Nineteen percent of participants, all from the three oldest age groups, expressed, with anger, that it bothered them, in particular, to hear others talk using the ‘s’ with salience. These participants interpret such use as a display of superiority which is offensive for them (people from Tecapán). For example, LI (example 21) said that it made her feel angry to hear someone speak “*chapelón*”. As she was expressing her opinions she used the interdental as well as the aspirated variants of /s/, but when she imitated or when she was referring to others’ way of speaking, in particular to the speech of San Salvador, she switched from the interdental pronunciation of /s/ to [s], as illustrated in example (21), in order to show her contempt for that specific way of speaking.

- (21) *Caθi nadie me habla a mí “así” pero cuando vamo[h] a θan θalvador a veθe[h] por ahí por ejemplo con Davi, “sí pero o sea eh que no sé cómo ha_{ser} y no sé qué” y hay da cólera y noθotro[h] no[h] ponemo[h] “bichoθ serote[h]” . Eθo. Aquí caθi no θe oye mucho pero en “san salvador sí” pero aθí e[h] cantadito cantadito bien chapetón... y e[h] que a mi θi me da cólera oír a alguien hablar aθí pero e[h] porque quieren aparentar, tal ve[h] en una champa viven pero como viven en θan θalvador quieren aparentar que hablan “así todos fresones” (LI, 24-34)*

Almost nobody talks to me “like that”, but when David and I go to San Salvador sometimes for example [LI imitates what they hear] “yes, but... I mean... I don’t know what to do and I don’t know what” it makes me angry and we say “bichoθ serotes”³³. It is not heard as much here but in “San Salvador it is” it’s like a sing-song, *chapetón*... the thing is that it makes angry to hear someone talk like that, but it is because they want to show off, they probably live in a shack but just because they live in San Salvador they want to pretend they talk “like a snob.”

These 19% of participants (table 4-65), thus, show that there is a number of Tecapanecos who completely reject the speech of others, particularly those from the capital city and the western regions. This complete rejection is due to their awareness that these “others” think that they are somehow superior and attempt to show their superiority through their speech.

There is, however, a percentage of people who perceive the differences in positive terms. Fourteen percent expressed that they liked others’ way of speaking. One participant said that she liked it because “...it sounds pretty” (RB, 35-54). Though this

³³ Bicho: young male. Serote: a big piece of excrement. Bicho serote: Used as an adjective to insult someone

group is the smallest percentage, it shows the variety of perceptions that exist about differences in speech, and at the same time, it shows awareness of difference.

In sum, it seems then that Tecapanecos are aware that their Spanish is different from the Spanish spoken in other regions and their characterizations indicate that their variety is stigmatized. In other words, they think of the Spanish of Tecapán as being humble, yet “less educated” and “less civilized” than that of the other places, which in general is characterized as being “better” than their own.

4.6.5. Would you change the way you speak?

Given that the Spanish spoken in Tecapán is stigmatized, I asked whether they would change their way of speaking to that of other regions where speech is “prettier” and “more educated”. More than half (64%) of participants expressed they would not change their way of speaking. Twenty-nine percent expressed they would change if required by circumstances, and 7% responded that people had the right to talk the way they wanted (table 4-66).

Would not change	64% (N= 18)
Would change if required by circumstances	29% (N= 29)
Neutral: people have the right to talk the way they want	7% (N= 7)

Table 4-66 Answers to the questions: Would you change your way of speaking?

When these responses are examined across age groups (table 4-67), it can be seen that there were participants in all groups who stated that they would not change their way of speaking. Moreover, all participants in group 5 would not change. Those who said they

would change if required by circumstances were distributed among groups 15-19, 20-34, and 35-54.

	Age group 9-14	Age group 15-19	Age group 20-34	Age group 35-54	Age group 55+
Would not change	11% (N= 2)	11% (N= 2)	28% (N= 5)	28% (N= 5)	22% (N= 4)
Would change if required by circumstances	0%	24% (N= 2)	38% (N= 3)	38% (N= 3)	0%
Neutral: people have the right to talk the way they want	0%	0	50% (N= 1)	50% (N= 1)	0%

Table 4-67 Answers to the questions: ‘Would you change your way of speaking?’ across age group³⁴.

When some of the older participants answered this question, their facial expressions and the tone of their voice changed. They gazed at me and it seemed to me they felt offended with the question and replied with an emphatic “no”, for example:

(22) (a) *No, eso si no. No puedo hacerme solo porque ellos pronuncian bastante la ese no voy a hacer lo mismo yo no.* (AG, 35-54)

No, not that. I cannot change just because they pronounce the ‘s’ rather stronger, I am not going to do what they do; not me.

(b) *No, yo no, yo mi forma de hablar...yo para que voy a querer cambiar mi forma de hablar.* (IE, 55+)

No, not me, my way of speaking...Why would I want to change it?

(c) *No. No no. Cada quien tiene su propia forma de ser y eso se respeta* (JI, 55+)

³⁴ Only 28 responses were included as 2 of the youngest participants (9-14) responded “I do not know” to this question.

No. No no. Everyone has their own way of speaking and that needs to be respected.

The reasons they gave as to why they would not change can be grouped into three themes: (1) identity (example 23a), (2) falseness (example 23b), and (3) perceived inability to speak differently (example 23c):

(23) (a) *No cambio porque entonces dejaría de ser yo. Si pienso comunicarme como aquel lo hace estoy perdiendo mi identidad.* (JI, 55+)

I would not change because then I would stop being me. If I communicate like others do I am losing my identity.

(b) *...es que se me hace como bien falso, la mayoría lo hace para encajar.* (LI, 20-34)

It's that it seems false to me, the majority do it to fit in

(c) *Para que voy a querer cambiar si tal vez no voy a poder tal vez meter más las patas al querer hablar como están hablando ellos que hablar así como uno naturalmente.* (IE, 55+)

I probably wouldn't be able to do it, I might even screw it up if I wanted to talk like them instead of talking naturally like one does.

Though, as mentioned the beginning of this section, the majority of participants expressed they would not change their way of speaking, 29% stated that they liked the way they spoke but they would change it if required by circumstances. As one of the participants said it “... *uno se adapta al ambiente en el que se desenvuelve*” ‘...you adapt to the environment in which you live’ (RB, 34-54). These circumstances included living in another place for a long time, mainly in the capital city or in the United States

(example 24a-24b). They also expressed they would change due to the influence of family members and friends (example 24c). Participants also felt they would change their way of speaking in order to get a job as well as to fit in (example 24d).

(24) (a) *...en San Salvador... Sí, quierase o no tendría que cambiar porque como ya fuera otra vida ya ya no fuera lo mismo que aquí ya fuera bien diferente...* (FE, 20-34)

In San Salvador... I would have to change whether I want it or not because it would be a different life, it would not be the same, it would be different.

(b) *Yo creo que con el tiempo sí porque a veces no es que uno quiere sino que la misma mente se va grabando los sonidos y uno va tratando de imitarlo. Entonces sí creo que con el tiempo se le pega a uno también porque en mi caso tengo ese defecto que a mí se me pegan los acentos...* (WJ, 35-54)

I believe that with time one changes, not because you want but because your mind picks up those sounds and one tries to imitate them. So, with time it sticks with you because in my case I have the defect that accents stick to me...

(c) *Cuando llegué a visitar a mi prima me dice mirá aquí no vayas a decir charamusca porque te van a hacer burla decí topoyito y yo me quedaba...* (MB, 15-19)

When I went to visit my cousin she tells me: do not say *charamusca* because they are going to make fun of you, instead say *topoyito* and I was like...

(d) *En una entrevista [de trabajo] uno busca la manera de no equivocarse o decir cosas... allí se entra saludando y parecer lo más educado posible, lo más encajable posible. Utilizando una actitud formal y seria.* (DG, 20-34)

In an interview [for a job] one tries not to make mistakes or to say things...you enter the place greeting and appearing as educated as possible, trying to fit in as much as possible. Displaying a formal and serious attitude.

Seven percent of the participants did not explicitly say whether they would change or not, instead their answer was that people should talk as they wish ‘...*que cada quien hable como quiera*’, (CT, 35-54).

Based on the insights provided by 30 of the 32 participants, it can be argued that participants do perceive differences in the way Spanish is spoken in Tecapán in comparison with the Spanish spoken in other places. The differences were expressed in terms of “word use” and in terms of /s/ use. In regard to “word use” participants explicitly characterized their Spanish as being less refined and simpler; therefore “others expressed themselves better”. In terms of /s/ use, participants do perceive that in other places speakers produce this sound with more salience or strength than they do. It seems that for these speakers the norm is the interdental in opposition to a salient ‘s’ as demonstrated by the large differences in the rates of production of the interdental vs. the sibilant in contrast to comparable rates of production of the aspirated and elided variant. The pronunciation of the sibilant in this community is defined as a *chapetón* way of speaking, which is at the same time rejected because of the sense of superiority perceived when used by a speaker from a location different than Tecapán. Taking the above evaluations into consideration, it can be inferred that participants are aware that their variety is stigmatized in other parts of the country. In spite of this stigmatization, the majority of its speakers, mainly from the oldest age groups, emphatically expressed they

would not change their pronunciation because it is part of their identity and to do so would seem false to them.

Throughout this section I have presented a qualitative analysis of the data gathered from the open-ended questionnaire in order to answer research question number three regarding the social meaning that speakers associate with the interdental variant of /s/.

Chapter 5 . Summary and conclusions

5.1. Introduction

In the present chapter, I conclude this dissertation by reviewing the findings reported in chapter 4. This chapter comprises 6 sections. In section 5.2, I present a summary of this dissertation. In section 5.3, I answer research question 1 which sought to determine the linguistic factors that condition the use of [θ]. Section 5.4, reviews research question 2 which sought to determine the social and stylistic factors affecting the interdental. Research question 3, which seeks to find the social meaning of the interdental, is reviewed in section 5.5. In section 5.6, I describe the contributions of this study, and the final section, 5.7, discusses the limitations of the present study as well as future research directions.

5.2. Summary

The purpose of this study was to determine which linguistic, social, and stylistic factors had an effect on the realization of /s/ as interdental in a community in the eastern region of El Salvador. The linguistic factors included word position, syllable position, preceding and following segment, stress, word type, number of syllables, and morphological status. The social factors included gender, age group, occupation, educational level, and income. The stylistic factors included casual, careful, and reading style. It was also the purpose of this investigation to determine if there were any social meanings associated with the production of the interdental

A total of 9074 tokens extracted from sociolinguistic interviews of 32 Salvadoran speakers from the community of Tecapán were statistically analyzed using a mixed effects model to determine the effect of the linguistic and social variables on the interdental. In addition, I ran pairwise comparisons in order to determine statistically significant differences between the different levels comprising the factor groups. These analyses showed that the linguistic factors that have a significant effect on the pronunciation of /s/ as interdental were word position, syllable position, following segment, word type, and morphological status. In summary, these analyses showed that, though found mainly in word initial and medial position, the interdental is more likely to be produced in word medial onset position. It was rarely found in syllable final and in word final position, but when it is produced in this position, it is more likely to be followed by a pause. Additionally, the interdental is more likely to occur in a content word than in a function word. Finally, when [θ] occurs, it is more likely to have non-morphemic value. Only two social factors had a significant effect on the interdental; these were age group and occupation. Speakers age 55 and older are more likely to produce the interdental than younger speakers. Participants in the highest occupational category had less probability of using the interdental.

Style also had a significant effect on [θ]. Based on the relationships found between style and social factors, it can be inferred that the interdental is a stable variant in this community. In general, as the formality of the task increased the interdental was less likely to occur. For example, participants were more likely to produce the interdental in casual style than in the reading task. In contrast, the sibilant was used in more formal

styles. Additionally, participants in the lowest occupational, educational, and income categories were more likely to produce the interdental in casual style than in more formal styles. There were no significant differences between females and males. Finally, the distribution of the interdental according to age group revealed a u-shape which is a pattern of age grading, a phenomena associated with stable variants, not with a change in progress.

A qualitative analysis of data collected through an open-ended questionnaire revealed that participants were aware that their pronunciation was stigmatized in comparison with the pronunciation of other communities, yet, the majority of participants (64%) stated that they would not change their way of speaking because it was part of their identity. Though stigmatized by the larger community, the interdental in Tecapán is positively valued because it is used as a marker of identity.

5.3. Research question 1

- 1- What are the internal linguistic factors (i.e.: word/syllable position, preceding/following phonological segment, stress, number of syllables, word function, morphological status) that condition the pronunciation of /s/ as interdental?

The factors found to have an effect on the pronunciation of /s/ as interdental were word position, syllable position, preceding segment, following segment, word function, and morphological status. These results can be compared with three other studies of

Salvadoran Spanish which have briefly mentioned some linguistic factors that affect the pronunciation of the interdental. Even though the interdental is one of the variants of /s/ that has not being previously studied taking into consideration linguistic and social factors, all the factors that affect its production have been found to have a significant effect on the pronunciation of the two most commonly studied variants of /s/, specifically its aspirated and elided variant (e.g.: Terrell 1978; Alba 1982; Cepeda 1995; Bybee 2000; Ruiz-Sánchez 2004; Eckert 2005; Brown 2006; File-Muriel 2009; File-Muriel and Brown 2010; Erker 2012).

In the present study, the interdental was observed in all word positions. The majority of tokens of [θ] were observed in medial word position and the second highest percentage was observed in word initial position. The interdental rarely occurred in word final position. When it did, it mainly occurred when the following segment was a pause, and seldom when the following segment was a voiceless plosive and/or a vowel. In both, medial and initial word position, the interdental is primarily observed in syllable initial position and rarely in word/syllable final position.

Taking into consideration occurrences of interdental /s/ reported by Canfield (1960) and Azcúnaga López (2010) and comparing them with the current study, one finds a number of differences in regard to the production of [θ]. For example, in comparison with Canfield's report from the 1960s, the interdental in the population that I interviewed in 2014 shows a decrease in frequency of the interdental in word/syllable final position, but an increase in intervocalic position and in syllable initial position. In syllable final position before voiceless plosives Canfield reports that the interdental occurs at a rate of

10% and in word final position he reports a rate of 11%. In the present study, the percentage of realization in these positions is only 1%. In word/syllable final position the aspirated variant [h] is preferred by speakers in Tecapán. Furthermore, this variant has been reported in all studies of Salvadoran Spanish, and according to Maxwell (1980) aspiration of /s/ is a characteristic of Salvadoran phonology. While in Canfield's study speakers used this variant 30% and 35% of the time in word and syllable positions respectively, in the present study it occurs 73% and 77% in these two positions. Azcúnaga López (2010) reports that in postnuclear position the most productive environments for [θ] are before nasal bilabial segments and before liquids, yet in the present study, the interdental was never observed before nasal or liquid segments (see table 4-7).

In regard to the interdental in intervocalic position, in Canfield (1960) 21% of interdentals occurred in this position. In this same position, in 2010, Azcúnaga López, reports that [θ] is produced at a rate of 10% while 78.8% of the time /s/ is produced as [s]. In the present study, the interdental was observed between vowels more than 77% of the time. Finally, in syllable initial position, Canfield reports that 17% of the tokens occurred as interdentals and 79% occurred as [s]. Along the same lines, Azcúnaga López (2010) reports that in prenuclear position /s/ is manifested as [θ] 7.5% and 83.3% of the time as [s]. In contrast, in the present study, in syllable initial position 71% of the tokens occurred as interdentals and only 20% of the tokens in this position occurred as [s]. In summary, in comparison with Canfield, there is a smaller percentage of the interdental in word/syllable final position than in the current study and there is a much higher

percentage of interdentalals in syllable initial and intervocalic position. In comparison with Azcúnaga López, there seems to be an increase in the production of the interdental. This variability could be due differences in methodologies. Canfield includes only 2 speakers from the eastern region, and, additionally, these speakers are from the most urban city of the eastern region. Azcúnaga López, only conducts his study in departmental capitals³⁵ of the country. Additionally, the linguistic parameters used by these two authors were different than the ones considered in the present study. For example, Canfield reported results based on syllable final before voiceless plosives, syllable initial, word final, and intervocalic position; and Azcúnaga López reports /s/ realizations in prenuclear and postnuclear position.

The other factors that were found to have a statistically significant effect on the pronunciation of [θ] were word function and morphological role. In regard to the latter, there are more probabilities of observing an interdental when it does not have a morphemic value. The interdental rarely occurred as plural marker or as a verbal inflection. Therefore, the realization of the interdental is not likely to give origin to ambiguities generated when /s/ occurs as [∅] as reported by Maxwell (1980). The variant that most commonly occurred with either of these values (plural marker or verbal inflection) was the aspirated variant. It occurred 74% of the time as a plural marker and 80% of the time as a verbal inflection. In regards to word type, the interdental is more likely to be observed in content words than in function words.

³⁵ An equivalent of a departmental capital in the U.S. context would be, roughly, a state capital.

5.4. Research question 2

- 1- What are the external factors, both social and stylistic, that condition the pronunciation of /s/ as interdental?

As already mentioned, in this study it was found that of all the social factors considered, only occupation and age group had a statistically significant effect on the pronunciation of the interdental. Preadolescents ages 9-14 and adults 55 or older produce the interdental with higher frequency than late adolescents (15-19) and young adults (20-34). Professionals and civil servants, due to the exposure to linguistic resources outside of the community, are less likely to produce /s/ as interdental. Instead, these speakers are more likely to produce /s/ as [s]. Even though education did not have a statistically significant effect on the pronunciation of the interdental, the distribution of [θ] across educational levels indicates that professionals and civil servants are also the speakers with the highest education attainment. Canfield (1960) comments that the interdental *se oye más en la clase baja tal vez* 'it is heard more in speakers from the low class'. The results of the present study are to a certain extent in accordance with Canfield (1960) as the majority of interdentals were observed in participants that were assigned to the three lowest categories of occupation, education, and income. The present study did not consider social class as a whole, instead it considered occupation, education, and income as independent social variables because the majority of speakers did not see themselves as part of a particular social class. They saw themselves as people who worked hard in order to live. For example NP (35-54) said '*aquí todos trabajamos para vivir*' 'here, we

all work to make a living'. They also saw themselves as being economically equal. For example RB (35-54) said '*aquí todos más o menos somos iguales*' 'here we all belong to the same class more or less.' Participants knew that other people in town were struggling to survive and in many occasions people had to migrate mainly to the U.S. in order to have economic resources to meet basic needs.

Lipski (2000, 2007) comments that the interdental variant is often heard in the speech of rural Salvadorans. In contrast, Azcúnaga López (2010) claims that the interdental is found not only in rural areas but also in more urban areas as delineated in the *ALPES*³⁶ that he presents in his 2010 study *Fonética del español salvadoreño*. The results of the present study partially agree with what has been reported in the *ALPES* as this study was conducted in an urban area and more than one third (35.76%) of a total of 9074 tokens were produced as interdentals.

In regard to style, the interdental is more frequently observed in casual style (36.40%) than in more formal styles (31.14% in careful style and 5.73% in reading style). In general, the production of the interdental decreased as the formality of the task increased. Though it is in casual style where the majority of interdentals were observed, the allophone that was most frequently produced was [h] with 43.32% of the occurrences in this style. This variant, like the interdental, decreased as the formality of the task increased. The sibilant variant [s], on the contrary, increased along with the formality of the task. Results of the production of [s] and [h] reported in the present study agree with

³⁶ Atlas Lingüístico Pluridimensional de El Salvador. This atlas situates the interdental in the entire eastern region as well as in the upper northern part of both the central and the western regions.

findings reported by Maxwell (1980) and Hoffman (2001) according to which the production of the ‘weakened’ variants of /s/ decreases as the formality increases.

In comparison with Canfield, there appears to be a clear increase in the production of the aspirated variant in comparison with [s]. Specifically, in Canfield’s study [s] is the most produced variant in all environments. In contrast, in all other studies (Maxwell 1980, Hoffman 2001, Azcúnaga López 2010) except in Lipski’s 2000, [h] is the most produced variant in the majority of environments considered. In regard to the interdental, there has been an increase in comparison with both Canfield and Azcúnaga López. Undoubtedly, the need for more systematic accounts of the production of /s/ are needed in order to have a more complete picture of the behavior and evolution of this sound in El Salvador.

5.5. Research question 3

- 1- What social meanings, if any, do speakers associate with the interdental variant of /s/?

With respect to research question 3, it was found that speakers are aware that their Spanish is stigmatized in other parts of the country. Nonetheless, the majority of speakers in the studied community emphatically expressed they would not change their way of speaking because it was part of their identity. For these speakers, the interdental, a non-standard form, as Labov (2001) mentions, represents an alternate form of symbolic capital that carries full value to them. There is a rejection of the pronunciation of /s/ as a

sibilant, the most prestige variant of /s/, because speakers perceive it as a display of superiority on the part of those who produce it. Therefore, through the use of the interdental, these participants identify themselves as people who speak a humble and simple language and who at the same time differentiate themselves from those who speak in a pretentious way through the use of the sibilant [s] variant of /s/

5.6. Contributions

The study of the interdental variant of /s/ in Salvadoran Spanish contributes to our understanding of the linguistic, social, and stylistic contexts in which this understudied variant occurs, as well as to our understanding of Salvadoran Spanish in general. Therefore, the present work fills a 30+ year old gap left by previous studies that only briefly touched upon this variant. By determining the linguistic patterns of [θ], this study contributes to clarifying the notion that the interdental pronunciation of Salvadoran /s/ is not the same as *ceceo*. Additionally, this work contributes to the field of variationist linguistics by providing a systematic analysis that can serve as the basis for future studies of interdental /s/ in eastern El Salvador and in other areas where this variant has been reported to occur. Finally, it contributes to the documentation of speakers' attitudes toward the interdental variant of /s/. These contributions are important because they reveal details as to how these speakers construct a local linguistic identity based on a stigmatized variant which is used to establish a difference between in-group and out-group members.

5.7. Limitations and future research

This study was conducted in a small town in the eastern part of El Salvador. Future research that takes into account linguistic, social, and stylistic factors should be conducted in other parts of the same region in order to determine if the Spanish of Tecapán is representative of the eastern regions of El Salvador. Additionally, a study should be conducted in the other two regions (central and western), specifically, to investigate perceptions speakers in these regions have about their own speech as well as their perceptions of the speech of others. Studying these other regions would help determine if the interdental allophone is a characteristic of the Spanish spoken only in the eastern region or if it is a variant of /s/ found all over the country. A study of /s/ variation in El Salvador should also incorporate computer-based techniques in order to more accurately measure the acoustic properties of /s/ allophones in Salvadoran Spanish. Through these techniques, sounds could be analyzed using speech analysis software such as *Praat*, *Speech Analyzer*, and/or *Adobe Audition* among others. It is also important to conduct an electropalatographic³⁷ study that would allow the identification of which articulators intervene in the production of the interdental so that it can be more accurately described and identified. Further systematic studies of Salvadoran /s/ are also needed in order to determine its origins. Given the fact that it occurs at a rate of 71% in syllable initial position, is it possible that it developed from Andalusian *ceceo*? Parker (2010) notes that it seems to follow a similar pattern and have similar acoustic behavior to Andalusian *ceceo*, although she also states that they

³⁷ Electropalatography is a technique for recording the timing and location of tongue contact with the roof of the mouth during speech

are functionally two very different phenomena. Alternatively, is the interdental an extension of the weakening processes which originated in syllable final position as has been posited for [h] when it occurs in syllable initial position? Finally, given the increase in Salvadoran immigration to the U.S since the 1990's a study of this variant should be conducted in the U.S. in order determine under which circumstances it is maintained or abandoned once Salvadoran immigrants from eastern El Salvador come into contact with speakers of other varieties of Spanish.

References

- Alba, O. 1982. Función del acento en el proceso de elisión de la /s/ en el español de la República Dominicana. In O. Alba (Ed.), *El Español del Caribe: Ponencias del VI Simposio de Dialectología*, 15-26. Santiago de los Caballeros: Universidad Católica Madre y Maestra.
- Alba, O. (1990). *Variación fonética y diversidad social en el español de Santiago*. Santiago: Pontificia Universidad Católica.
- Alba, O. (2000). Variación de la /s/ en las noticias de televisión. In O. Alba (Ed.), *Nuevos aspectos del español en Santo Domingo*, 27-48. Santo Domingo: Librería La Trinitaria.
- Alba, Orlando. (2004). *Cómo hablamos los dominicanos: Un enfoque sociolingüístico*. Santo Domingo: Grupo León Jiménez.
- Alba, O. (2009). *La identidad lingüística de los dominicanos*. Santo Domingo: Búho.
- Alfaraz, Gabriela G. (2000). *Sound Change in a Regional Variety of Cuban Spanish*. Ph.D. Dissertation. Michigan State University, East Lansing.
- Azcúna López, R. E. (2010). Fonética del español salvadoreño. In M. A. Pacheco Quesada, *El español hablado en América Central*, 39, 83-113. Madrid: Iberoamericana-Vervuert.
- Bailey, G., Wikle, T., Tillery, J., & Sand, L. (1992). The apparent time construct. *Language Variation and Change*, 3, 241-264.
- Blass Arroyo, J. L. (2005). *Sociolingüística del español*. Madrid: Cátedra.
- Broce, M., & Torres Cacoullos, R. (2002). "Dialectología urbana" rural: La estratificación social de (r) y (l) en Coclé, Panamá. *Hispania*, 85(2), 342-353.
- Brown, Earl. (2008). *Final /s/ Reduction in Three Dialects of Spanish*. Ph.D. Dissertation, University of New Mexico, Albuquerque.
- Brown, E. L. (2005). New Mexican Spanish: Insight into the Variable Reduction of "la ehe inihial" (/s-/). *Hispania*, 88(4), 813-824.
- Brown, Esther L. and Rena Torres Cacoullos. (2003). Spanish /s/: A different story from beginning (initial) to end (final). In R. Núñez-Cedeño, L. López and R. Cameron

- (Eds.), *A romance perspective on language knowledge and use: Selected papers from the XXXI Linguistic Symposium on Romance Languages (LSRL)*, 21-38. Amsterdam: John Benjamins Publishing Co.
- Bybee, J. (2000). Lexicalization of sound change and alternating environments. In M. E. Beckman, & J. Kingston (Eds.), *Papers in Laboratory Phonology V*, 250-260. Cambridge: Cambridge University Press.
- Bybee, J. (2003). *Phonology and Language Use*. Cambridge: Cambridge University Press.
- Calero Fernández, M. A. (1990). Distribución y estratificación social de /s/ implosiva y /ʃ/ intervocálica en el habla de la ciudad de Toledo. *Sintagma*, 2, 29-44.
- Cameron, Richard. 1996. A community-based test of a linguistic hypothesis. *Language in Society*, 25: 61-111.
- Cameron, R. (2000). Language change or changing selves? Direct quotation strategies in the Spanish of San Juan, Puerto Rico. *Diachronica*, 17(2), 249-292.
- Cameron, R. (2005). Aging and gendering. *Language in Society*, 34, 23-61.
- Cameron, R. (2011). Aging, Age, and Sociolinguistics. In M. Díaz-Campos (Ed.) *The Handbook of Hispanic Sociolinguistics*, 207-229.
- Canfield, D. L. (1953). Andalucismos en la pronunciación salvadoreña. *Hispania*, 36(1), 32-33.
- Canfield, D. L. (1960). Observaciones sobre el español salvadoreño. *Filología*, 6, 29-76.
- Cedergren, H. (1973). *The interplay of social and linguistic factors in Panama*. Doctoral Dissertation. Cornell University, New York.
- Cepeda, Gladys. 1995. Retention and deletion of word-final /s/ in Valdivian Spanish (Chile). *Hispanic Linguistics*, 6-7: 329-353.
- Chambers, J. (2003). *Sociolinguistic Theory: Linguistic Variation and Its Social Significance*. Malden: Blackwell.
- Chambers, J. K., & Trudgill, P. (1998). *Dialectology*. Cambridge: Cambridge University Press.
- Coates, J., & Cameron, D. (1988). *Women in Their Speech Communities: New Perspectives of Language and Sex*. Harlow: Longman.

- Columbia University, S. o. (1962). *Codebook for the Mobilization for Youth*. New York.
- Corsaro, W. A. (1997). *The Sociology of Childhood*. New York: SAGE Publications.
- Dalbor, J. B. (1980). Observations on Present-Day Seseo and Ceceo in Southern Spain. *Hispania*, 63(1), 5-19.
- Dorta L. J. (1989). La variación fonética de "r" y "l" en La Perdoma, norte de Tenerife. *Anuario de Letras*, 27, 81-125.
- Duranti, A. (2009). *Linguistic Anthropology*. Cambridge: Cambridge University Press.
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing Ethnographic Fieldnotes*. Chicago: University of Chicago Press.
- Eckert, Penelope. (1996). "(hay) Goes to the city. Exploring the expressive use of variation." In R. Guy, Crawford Feagin, Deborah Schiffirin and John Baugh (Eds.) *Towards a social science of language: Papers in Honor of William Labov*, 1, 47-68. Philadelphia: John Benjamins.
- Eckert, P. (1997). Age as a sociolinguistic variable. In F. Coulmas (Ed.), *Handbook of Sociolinguistics*, 151-167. Oxford: Blackwell.
- Eckert, P. (2000). *Linguistic Variation as Social Practice*. Malden: Blackwell Publishers.
- Eckert, P. (2012). Three Waves of Variation Study: The Emergence of Meaning in the Study of Sociolinguistic Variation. *Annual Review of Anthropology*, 41, 87-100.
- Eckert, P. 2008. Variation and the indexical field. *Journal of Sociolinguistics* 12(3), 453-476.
- Erker, D. G. (2010). A subsegmental approach to coda /s/ weakening in Dominican Spanish. *International Journal of the Sociology of Language*, 203, 9-26.
- Erker, D. G. (2012). Of Categories and Continua: Relating Discrete and Gradient Properties of Sociophonetic Variation. *University of Pennsylvania Working Papers in Linguistics*, 18(2), 10-20.
- File-Muriel, R. J. 2007. *A study of lenition: The role of lexical frequency and phonetic context in the weakening of lexical /s/ in the Spanish of Barranquilla*. Ph.D. Dissertation, Indiana University.
- File-Muriel, R.J (2009). The Role of Lexical Frequency in the Weakening of Syllable-Final Lexical /s/ in the Spanish of Barranquilla, Colombia. *Hispania*, 92(2), 348-360.

- File-Muriel, R.J. and Earl K. Brown (2011). The Gradient Nature of S-Lenition in Caleño Spanish. *Language Variation and Change*, 23, 223-243.
- Fontanella de Weinberg, María Beatriz. 1974. Aspectos sociolingüísticos del uso de -s en el español bonaerense. *Orbis*, 23,85-98.
- Garret, Peter (2010). *Attitudes to Language*. New York: Cambridge University Press.
- Geoffroy Rivas, P. (1978). *La lengua salvadoreña: El español que hablamos en El Salvador*. San Salvador: Consejo Nacional para la Cultura y el Arte.
- Gordon, Elizabeth. (1997). Sex, Speech, and Stereotypes: Why Women Use Prestige Speech Forms More than Men. *Language in Society*, 26 (1), 47-63.
- Günthner, Susanne. (2007). The construction of otherness in reported dialogues as a resource for identity work. In P. Auer (Ed.), *Style and social identities. Alternative approaches to linguistic heterogeneity*, 417-443.
- Hammond, Robert. 1980. Las realizaciones fonéticas del fonema /s/ en el español cubano rápido de Miami. In G. Scavnicky (Ed.), *Dialectología hispanoamericana, estudios actuales*, pp. 8-15. Washington, D.C.: Georgetown University Press.
- Hochberg, Judith. 1986. Functional compensation for /s/ deletion in Puerto Rican Spanish. *Language*, 62, 609-621.
- Hoffman, M. F. (2001). Salvadorian Spanish /-s/ and Deletion in a Bilingual Context. *University of Pennsylvania Working Papers on Linguistics*, 7(3), 115-127.
- Hoffman, M. F. (2010). *Salvadorian Spanish in Toronto: Phonological variation among Salvadorian youth in a multilectal, multilingual context*. Munchen: Lincom Europa.
- Hualde, J. I. (2005). *The Sounds of Spanish*. Cambridge: Cambridge University Press.
- Johnstone, B. (2000). *Qualitative Methods in Sociolinguistics*. New York: Oxford University Press.
- Labov, W. (1972). *Sociolinguistic Patterns*. Philadelphia: University of Pennsylvania Press.
- Labov, W. (1990). The intersection of sex and social class in the course of linguistic change. *Language Variation and Change*, 2, 205-254.
- Labov, W. (2006). *English in New York City*. New York: Cambridge University Press.

- Ladefoged, Peter. (2003). *Phonetic data analysis: An introduction to fieldwork and instrumental techniques*. Malden: Blackwell.
- Lafford, Barbara. (1986). Valor diagnóstico-social del uso de ciertas variantes de /s/ en el español de Cartagena, Colombia. In R. Núñez Cedeño; Iraset Páez; and Jorge Guitart (Eds.), *Estudios sobre la fonología del español del Caribe*, 53-75. Caracas: La Casa de Bello
- Lipski, John M. (1984a). On the weakening of /s/ in Latin American Spanish *Zeitschrift für Dialektologie und Linguistik*, 51, 31-43.
- Lipski, J. M. (1985). /s/ in Central American Spanish. *Hispania*, 68(1), 143-149.
- Lipski, J. M. (1986b). Instability and reduction of /s/ in the Spanish of Honduras. *Revista Canadiense de Estudios Hispánicos*, 11, 27-47.
- Lipski, J. M. (2000). El español que se habla en El Salvador y su importancia para la dialectología hispanoamericana. *Científica*, 1(2), 65-88.
- Lipski, J. M. (2007). *El español de América*. Madrid: Cátedra.
- Lipski, J. M. (2011). Socio-phonological variation in Latin American Spanish. In M. Díaz-Campos (Ed.), *The Handbook of Hispanic Sociolinguistics*, 72-97. Oxford: Wiley-Blackwell.
- Lynch, Andrew. (2008). A sociolinguistic analysis of final /s/ in Miami Cuban Spanish. *Language Sciences*, 31, 766-790.
- Martínez Celadrán E. and Ana M. Fernández Planas. (2007). *Manual de fonética española. Articulaciones y sonidos del español*. Barcelona: Ariel.
- Maxwell, J. M. (1980). El Español en El Salvador. *Estudios Centroamericanos*, 35(386), 1152-1166.
- Mendoza-Denton, N. (1999). Sociolinguistics and Linguistic Anthropology of U.S. Latinos. *Annual Review of Anthropology*, 28, 375-395.
- Mendoza-Denton, N. (2008). *Homegirls: Language and Cultural Practice Among Latina Youth Gangs*. Malden: Blackwell.
- Milroy, Lesley and Matthew J Gordon. (2003). *Sociolinguistics: method and interpretation*. Malden: Blackwell.

- Morales, H. L. (1983). *Estratificación social del español de San Juan de Puerto Rico*. México: Universidad Nacional Autónoma de México.
- Moreno-Fernández, F. (2011). Internal Factors Conditioning Variation in Spanish Phonology. In M. Díaz-Campos (Ed.), *The Handbook of Hispanic Sociolinguistics*, 54-71.
- Parker, Heidi E. (2008). *Variations in Salvadorian /s/: An acoustic analysis of [s] and [0]* Ph.D. Dissertation, Purdue University, Lafayette.
- Penny, Ralph. (2000). *Variation and Change in Spanish*. Cambridge, GB: Cambridge University Press. ProQuest ebrary. Web. 8 October 2016.
- Poplack, S. (1980). Deletion and Disambiguation in Puerto Rican Spanish. *Language*, 56(2), 371-385.
- Poplack, Shana. (1980). The notion of the plural in Puerto Rican Spanish: Competing constraints on (s) deletion. In W. Labov (Ed.), *Locating language in time and space*, 55-67. New York: Academic Press.
- Poplack, Shana. 1981. Mortal phonemes as plural morphemes. In D. Sankoff and H. Cedergren (Eds.), *Variation omnibus*, pp. 59-71. Edmonton, Alberta: Linguistic Research.
- Preston, D. R. (2010). Methods in (applied) folk linguistics: Getting into the minds of the folk. *AILA Review*, 24, 15-39.
- Price, S., Fluck, M., & Giles, H. (1983). The effect of language of testing on bilingual pre-adolescents' attitudes toward Welsh and varieties of English. *Journal of Multilingual and Multicultural Development*, 4, 149-161.
- Quintanilla Aguilar, J. R. (2009). Actitudes de los hablantes de San Salvador hacia el tuteo y el voseo. *Hispania*, 92(2), 361-373.
- Quintanilla Aguilar, J. R. (2012). Esbozo de un estudio de actitudes lingüísticas en El Salvador. *Revista Espanola de Linguística*, 42(1), 175-195.
- Rissel, D. A. (1989). Sex, attitudes, and the assibilation of /s/ among young people in San Luis Potosí, México. *Language Variation and Change*, 1, 269-283.
- Ruiz-Sánchez, C. (2004). El comportamiento de la /s/ implosiva en el habla de Caracas. *Boletín de lingüística*, 21, 48-65.

- Sánchez, R. (1994). *Chicano Discourse: Socio-historic Perspectives*. Houston: Arte Público Press.
- Sankoff, D., & Laberge, S. (1978). The Linguistic Market and the Statistical Explanation of Variability. In D. Sankoff (ed.), *Linguistic Variation: Models and Methods* (239-250). New York: Academic Press.
- Sankoff, G. (2006). Apparent Time and Real Time. In K. Brown, *Encyclopedia of Language and Linguistics*, 1, 110-116. Oxford: Elsevier.
- Schilling, N. (2013). *Sociolinguistic Fieldwork*. Cambridge: Cambridge University Press.
- Seklaoui, D. R. (1989). *Change and Compensation: Parallel Weakening of [s] in Italian, French and Spanish*. New York: Peter Lang.
- Silva Corvalán, C. (1981a). Extending the sociolinguistic variable to syntax: The case of pleonastic clitics in Spanish. In D. Sankoff, & H. Cedergren (Eds.), *Variation omnibus*, 335-342.
- Silva Corvalán, C. (2001). *Sociolingüística y Pragmática*. Washington D.C.: Georgetown University Press.
- Tagliamonte, S. A. (2012). *Variationist Sociolinguistic: Change, Observation, Interpretation*. Wiley-Blackwell.
- Taler, V. (1997). S-Weakening in the Spanish of San Miguel, El Salvador. M.A. Thesis, McGill University, Quebec.
- Terrell, T. D. (1978). Sobre la aspiración y elisión de la /s/ implosiva y final en el español de Puerto Rico. *Nueva Revista de Filología Española*, 27, 24-38.
- Terrell, T. D. (1979). Final /s/ in Cuban Spanish. *Hispania*, 62(4), 599-612.
- Terrell, T. D. (1981). Diachronic reconstruction by dialect comparison of variable constraints: s-aspiration and deletion in Spanish. *Variation Omnibus*, 115-124.
- Terrell, T. D. (1986). La desaparición de /s/ posnuclear a nivel léxico en el habla dominicana. In R. A. Nunez Cedeno, I. Páez Urdaneta, & J. M. Guitart (Eds.), *Estudios sobre la fonología del español del Caribe*, 117-134. Caracas: La Casa de Bello.
- Torres, L. (1991). The study of U.S. Spanish varieties: Some theoretical and methodological issues. In C. A. Klee, & L. A. Ramos-García (Eds.),

Sociolinguistics fo the Spanish-Speaking World: Iberia, Latin America, United States, 255-270. Tempe: Bilingual Press.

Trudgill, P. (1972a). Sex, covert prestige and lingusitic change in the urban British English of Norwich. *Language in Society*, 1, 179-195.

Trudgill, P. (1974a). *The Social Differentiation of English in Norwich*. Cambridge: Cambridge University Press.

Uber, Diane. (1981). *A perceptual and acoustic study of syllable and word-final -s and -n*. Ph.D. Dissertation, University of Wisconsin, Madison.

Valdivieso, H., and Magaña, J. (1988). Variación lingüística: La /s/ implosiva en Concepción. *R.L.A. Revista de Lingüística Teórica y Aplicada*, 26, 91-103.

Zentella, A. C. (1997). *Growing Up Bilingual: Puerto Rican Children in New York*. Malden: Blackwell.

Appendix A – The sociolinguistic interview

ID _____

Date _____

Questions for age group 3, 4, 5

Ahora me gustaría que me contara algo sobre el pueblo, por ejemplo cómo era antes en comparación con hoy.

Si usted prefiere podríamos hablar de cualquier otra cosa que se le ocurra a usted.

Now I would like you to tell me something about this town, example, has the town changed?

If you prefer we could also talk about any other topic that you can think of.

General questions

1. *Para empezar me gustaría que me contara sobre costumbres o tradiciones del pueblo que antes se practicaban pero ahora ya no. ¿Cómo han cambiado?*

Can you tell me something about customs and/or traditions that have been forgotten? How have they changed?

Polarization due to political ideologies

2. *Si había alguna actividad local ¿Quién/es la organizaban? ¿Asistía la mayoría de la gente? ¿Era este un pueblo unido o dividido? ¿Por qué?*

Who used to participate in the organization of local activities? Who used to attend them?

Was the town united or divided? Why?

Government, Violence, and Crime

3. *Y antes ¿Era seguro salir de noche durante celebraciones o fiestas? ¿Cómo era el ambiente?*

During the time you are describing was it safe to go out at night? What was it like to go out at night?

4. *Y ahora, ¿Se siente segura/a? ¿Qué piensa del trabajo que está haciendo el gobierno/ la policía/el ejército para combatir la violencia y el crimen?*

And today, do you feel safe? What do you think of the work that the government/the police/the armed forces are doing to fight violence and crime?

5. *¿Qué tipo de precauciones tiene que tomar si tiene que salir?*

What type of preventive measures do you take when you go out?

6. *¿Cómo le ha afectado a usted y a su familia toda esta situación de violencia?*

7. In what ways have you and your family been affected by all this violence?

8. *¿Ha sido víctima de algún robo?/ ¿Ha presenciado un robo?*

Have you been the victim of a robbery?

9. *Cambiando de tema, ¿Dónde estaba usted cuando pasó el terremoto del 2001? ¿Tuvo que dormir afuera?*
On a different topic, where were you during the 2001 earthquake? Did you have to sleep outside?

Questions for age group 1 and 2

1. *¿Va a la escuela de aquí de Tecapán? ¿En cuánto tiempo llega a la escuela/instituto desde su casa?*
Are you going to school here in Tecapán? How far is it from your house?
2. *¿Tiene o ha tenido profesores estrictos? ¿Le ha parecido bien o mal que sean/hayan sido estrictos?*
Do you have/have you had strict teachers? Have you liked/dislike teachers being strict?
3. *¿La/lo han castigado/acusado alguna vez por algo que usted no ha hecho?*
Have you ever been punished/accused of something you did not do?
4. *¿Ha visto a sus compañeras/os pasas papelitos en el aula? ¿Y usted pasa papelitos? ¿Lo vio la/el profesor?*
Have you seen others passing notes? Have you passed notes? Did a teacher catch you?
5. *¿Qué tipo de grupos hay en su escuela? ¿Y usted a cuál pertenece? ¿Y cómo se llevan?*
What kind of groups are there in your school? Do you belong to any of them?
How do you get along?
6. *¿Le gustan los nuevos uniformes o hubiera preferido quedarse con los anteriores?*
Do you like the new uniforms or would you have preferred the old ones?
7. *¿Le gusta la comida que les preparan? ¿Cuál es la que más/menos le gusta? ¿Por qué?*
Do you like the food that the school provides? Which do you like/dislike the most? Why?

Appendix B - Sociolinguistic questionnaire

ID _____ Date _____

Information/attitudes about location

1. *¿Cuánto tiempo tiene de vivir aquí?/ ¿Ha vivido en otros lugares?*
How long have you lived in this town? (If the person moved from somewhere else then ask: How long ago did they move here?)
2. *¿En general, le gusta más vivir aquí o en el otro lugar?*
In general, which do you like better; living here or living in the other location?
3. *¿Siente que este es el lugar al que pertenece (su verdadero hogar) o es solamente el lugar donde le ha tocado vivir?*
Do you think of this place as your real home, the place where you really belong, or is it just a place where you happen to live?
4. *¿Cree que la comunidad donde vive ahora es un buen lugar para criar niños?*
¿Por qué?
Do you think this is a good place to raise children? Why?
5. *¿Hay algo que le guste/no le guste de vivir en este lugar?*
Is there something that you like/dislike about living here?
6. *¿Le gustaría vivir en otra parte del país? ¿Cuál? ¿Por qué?*
Would you like to live in another part of the country? Why?

Social Networks

7. *¿Quiénes son las personas más importantes en su vida?*
Who is the most important person in your life?
8. *Cuando tiene un problema, ¿Con quién es más probable que lo consulte?*
When you have a difficulty or personal problems, who are you most likely to talk it over with?
9. *¿Vive su familia en este pueblo/ciudad?*
Does all your family live in this town?
10. *¿Con quién se reúne en sus ratos libres?*
Who do you gather with during your leisure time?
11. *¿Hay algún grupo/organización/comité en este pueblo?*
Are there organizations or committees in this town?
12. *¿Le han pedido que se una a uno de estos grupos?*
Have you ever been asked about joining a group/organization/committee?
13. *¿Le gustaría ser miembro de ese grupo?*
Do you think you would like to become a member?
14. *Hemos hablado sobre comités/grupos/organizaciones que existen en este pueblo. Ahora me gustaría preguntarle si usted/sus amigos pertenecen a estos comités/grupos/organizaciones*
We have talked about organizations or committees that exist in this town. Now I would like to ask if you and/or your friends belong to any church groups, cultural committees, political groups, or other type of groups?
15. *¿Tiene usted algún cargo en esta grupo/comité/organización?*

- Are you an officer of _____ committee/group/organization?
16. *¿Hay algún beneficio por pertenecer al grupo/organización/comité al que usted pertenece?*
Is there any benefit to belonging to the group/organization/committee that you belong to?
17. *¿Se siente más cómoda/o hablando con un grupo específico de personas? ¿Con quién/nes? ¿Por qué?*
Do you feel more comfortable talking with a specific group of people? With whom? Why?
18. *¿A quiénes le pide favores con más frecuencia?*
Who do you ask for favors most frequently?

Education

Ahora me gustaría hacerle algunas preguntas que tienen que ver con la educación

Now, I would like to ask you some questions dealing with education

19. *¿Cómo cree que es el trabajo que está haciendo la escuela?*
How is the work that the school is doing?
20. *¿Cuánta educación se necesita hoy para poder tener un trabajo decente/poder vivir decentemente?*
About how much schooling do you think most young women/men need these days to get along well in the world?
21. *¿En general cree que la gente está saliendo adelante o que se le hace difícil?*
Generally when you think of people in this neighborhood do you think they are getting ahead, or are they trying but finding it difficult?
22. *Cuando hablamos sobre salir adelante, ¿Qué tipo de cosas se le viene a la mente?*
When we talked about getting ahead, what sort of things come to mind?
23. *¿Cree que una persona joven con la habilidad y la ganas tendría la oportunidad de salir adelante y tener una casa y ganar \$_____ por mes?*
Do you think a young woman with ability and ambition has the opportunity to rise in the world, own her home, and earn ... a year?
24. *De 50 jóvenes de aquí que tengan la habilidad y las ganas de salir adelante, ¿Cuántos cree que lo puedan hacer? ¿Por qué sí/no?*
Out of 50 young women around here with thrift, ability and ambition, how many do you think will make it? What are some reason why they would/would not make it?
25. *¿Dónde tendrían sus hijos mejores oportunidades de conseguir lo que se propongan?*
Where would your children have a better chance of succeeding?
26. *¿Tuvo usted la oportunidad de estudiar todo lo que quería?*
Do you feel you had a chance to get as much education as you wanted?
27. *¿Cuántos años de escuela ha completado?*
How many years of school did you finish?

Occupation

28. *Suponga que alguien le pide consejo sobre cuál sería la mejor ocupación/profesión. ¿Qué diría?*
Suppose someone ask your advice on what would be one of the best occupations to aim toward. What do you think you would advise her?
29. *¿Cuál diría que es un trabajo excelente, uno malo y uno más o menos? ¿Qué lo hace excelente, malo o más o menos?*
What would you say is an excellent job, a poor job, an average job? What makes it excellent, poor, or average?

Income

30. *Esta es una lista de diferentes cantidades de ingresos mensuales a nivel nacional. Me podría decir ¿Cuál es el grupo al que usted se acerca más?*
Here is a list of monthly income. Could you tell me which number closely reflects your monthly income?

(1) <i>Menos del mínimo</i> - Less than the minimum wage
(2) <i>El mínimo</i> - Minimum wage (\$117.58)
(3) <i>Menos de \$270.69 pero más del mínimo</i> - Less than the national median income but above the minimum wage
(4) \$270 - National income (\$270.69)
(5) <i>Más de \$270</i> - More than the national median income

Demographic information

31. *¿En qué año nació?*
When were you born (year)?
32. *¿Dónde nació? ¿Dónde creció?*
Where were you born?
33. *¿A qué se dedica? ¿Dónde trabaja?*
What do you do for living? Where do you work?
34. *¿Qué otros lugares ha visitado? ¿Por cuánto tiempo ha estado allí?*
Which other places have you visited? How long have you stayed?

Appendix C – Reading task
La Sihuanaba

Indicaciones

Por favor lea en voz alta la siguiente versión corta de la leyenda de la Sihuanaba

Es una mujer alta y seca, de uñas largas y dientes salidos, su piel sucia y arrugada le dan un aspecto espantoso. Sus ojos rojos y saltados se mueven en la sombra, mientras masca bejucos con sus dientes horribles. La mujer vaga de noche, en las selvas espesas, en los caminos perdidos. Engaña a los hombres y con la cara cubierta, se presenta como una muchacha extraviada: "lléveme en ancas", y les da direcciones falsas de su vivienda, hasta perderlos en los montes. Entonces enseña las uñas y deja partir al engañado, carcajeándose de lo lindo, con sus risas chillonas y agudas.

Sobre las piedras de los ríos golpea sus chiches, largas hasta las rodillas, produciendo un ruido como de aplausos. Es la visitante nocturna de los riachuelos y de las pozas hondas, donde a media noche se le puede ver, moviendo sus ojos rojos, columpiada en los mecates gruesos.

Appendix D - Language attitudes

ID _____

Fecha _____

Ahora me gustaría que respondiera a varias preguntas que tienen que ver con el español que hablamos aquí en El Salvador.

Now I would like you to answer a few questions about the Spanish that we speak here in El Salvador

Spanish spoken in El Salvador

1- *¿Cómo es el español que hablamos aquí en El Salvador?*
How is the Spanish that we speak here in El Salvador?

2- *¿Se habla de la misma manera en todo El Salvador?*
Do people speak the same all over the country?

Podría señalar/hacer una línea/encerrar en un círculo/mencionar lugares donde se habla igual/diferente de usted

Could you please point/draw a line/circle/mention places where people speak like you and different from you?



3- *¿Podría mencionar alguna característica/cosa especial de la forma de hablar de la gente de los lugares que identificó en la pregunta anterior?*

Could you mention some characteristics about the speech of the people from the places you identified above?

- 4- *Cuando usted oye hablar a las personas de estos lugares ¿Qué se le viene a la mente?*
When you hear people from these places talk, what comes to mind?
- 5- *¿Cree que la forma de hablar de unas personas es mejor que la de otras?*
Do you think that some people speak better than others?
- 6- *¿Quiénes usan una forma de hablar más normal/estándar?*
Who do you think speak in a more normal/standard way?
- 7- *¿Dónde se habla el mejor/peor español?*
Where do you think the best/worst Spanish is spoken?
- 8- *¿Qué piensa de la forma de hablar de las personas en la radio y la televisión?
¿Qué emisoras escucha? ¿Qué canales ve?*
What do you think of the speech of radio and television presenters? Which radio stations/television channels do you listen to/watch?

Spanish spoken in the community and family domains

- 9- *¿Cómo es el español que se habla aquí en Tecapán? ¿Y usted habla así los tecapanecos?*
How would you evaluate the Spanish spoken here in Tecapán? Do you speak like the rest of people from Tecapán?
- 10- *¿Quiénes hablan como usted y quienes hablan diferente de usted?*
Who speaks like/different from you?
- 11- *¿Cómo es el español que habla con su familia?*
How would you evaluate the Spanish spoken in your family?
- 12- *¿Le gusta su forma de hablar/cambiaría su forma de hablar por una diferente o de otra región?*
Do you like the way you speak/would you change it?
- 13- *¿Cómo habla cuando usted siente que interlocutor habla como usted/diferente de usted?*
Do you change the way you speak when you realize that your interlocutor speaks like/different than you?
- 14- *Cuando la gente de otra parte quiere imitar a una persona de esta zona ¿Cómo cree que lo haría?*

If someone wanted to imitate the speech of people from this town, how would that person do it?

15- *¿Cómo sabe si una persona es de aquí de su pueblo/ciudad o no? ¿A qué presta usted más atención? ¿A su forma de hablar? ¿Al nombre que le da a las cosas? ¿A sus gestos? ¿A su forma de comer?*

How do you know whether someone is from this town or not? What do you pay attention to? To their way of speaking? To the words they use to name things? To their gestures? To manners when eating?

16- *¿Se hace amiga/o de personas que vienen de otras partes a vivir aquí? ¿Por qué?*
Do you become friends with new neighbors, especially from those who come from another town/city?

17- *¿Qué piensa de la forma de hablar de la gente de/en los pueblos?*
What do you think of the speech of the people from small towns?

18- *¿Cómo es el español que habla en su trabajo?*
How the Spanish that is spoken in your job/school?

19- *¿Cree que su forma de hablar le ayude o le impida a conseguir un buen trabajo?*
Do you think the way you speak may be of help or an impediment to get a good job?

20- *¿Ha tenido una experiencia particular relacionada con su forma de hablar? ¿Dónde fue? ¿Qué pasó? (¿Se han burlado alguna vez de usted por su forma de hablar?)*

Have you had an experience related to the way you speak? What was it? Where did it happen?