

The Acquisition of Spanish /θ/ in a Study Abroad Context

John Stevens

*University of North Carolina at
Wilmington*

INTRODUCTION

Spaniards speak with a lisp. As ridiculous as this statement may sound to those who know better, it nevertheless expresses a common stereotype of Castilian¹ Spanish perpetuated by popular culture, which traditionally attributes the origin of the Castilian “lisp” to a Spanish king—sometimes identified as Alfonso X *el Sabio*, other times as Felipe II—who supposedly suffered from this particular speech disorder. As the story goes, in order to avoid displeasing their liege (and risk losing their head), the king’s courtiers imitated his lisp, which in time spread to the general populace. I remember hearing this anecdote, entirely apocryphal, for the first time many years ago on television during the 1992 Summer Olympic Games held that year in Barcelona, when an American sports commentator, wanting to poke fun at the way Spaniards spoke, repeated a version of it to an audience of millions of English-speaking Americans. Educators too have played their part in promulgating the myth of the *rey ceceante*, or “lispking king.” In an informal survey I conducted in my Introduction to

¹ Although the term *Castilian* can refer to the Spanish language in general, it is used here exclusively to refer to Peninsular varieties of Spanish that distinguish between /θ/ and /s/.

Hispanic Linguistics class, almost half of the section's 20 students indicated that they had heard this story before from one of their former Spanish instructors, including those teaching at the university level.

Comedians also exploit the stereotype of the lisping Spaniard for humorous effect. For example, in a skit from Univision's online network Flama, which features predominantly English-based content designed to appeal to a wide demographic of 15- to 34-year-olds interested in Latino culture (Flama), the comedian Joanna Hausmann attempts to make sense of Spanish dialectal variation by showing her audience how to identify different Spanish accents. She "breaks it down" for them in the following way: Mexicans sound like a fast beat poet who is always out of breath, while Argentines come off as sounding like Italians overly impressed with their own Spanish. Cubans speak like they just left the dentist's office still under the effects of Novocaine, and Colombians all sound like Sean Connery telling a very sad story (presumably for his apical-alveolar pronunciation of /s/). Hausmann ends her "rant" with: "And to think it all comes from the same place, Spain, a country where everybody has a *li[θ]p*" (Hausmann). The British comedian Catherine Tate also makes fun of the way Spaniards speak. In a sketch from her hit comedy television show, Tate's character offers to translate for a group of international CEOs meeting in London. As she goes around the meeting table, she proceeds to parody each language—French, Italian, Chinese, etc.—by producing a stereotypical impression of that language's prosodic features (e.g. intonation, stress, rhythm, etc.) that are mapped onto nonce words. When she gets to the Spanish CEO, she produces a series of consonant/vowel syllables all beginning with an exaggerated lisping articulation delivered with a machine-gun like rhythm. The effect is hilarious, albeit not flattering to Spaniards (Tate).

Taking the above popular notions associated with Castilian Spanish as my point of departure, I examine the acquisition of the Spanish voiceless interdental fricative phoneme /θ/,² or "theta," by American university students participating in a summer study abroad program in Spain. My investigation adopts a sociolinguistic theoretical framework that holds that variation is not random but rather conditioned by linguistic and social factors whose effects may be quantified to create a model of interlanguage that describes the occurrence of a linguistic variable in probabilistic terms

² For ease of exposition, virgules, or slashes, / /, refer to theta in general or to theta when it functions as a phoneme; brackets, [], refer to a specific token or variant of a phoneme.

(Cedergren and Sankoff; Guy; Young and Bayley). The main research questions I address here are the following:

- 1) To what extent do students exposed to a theta variety of Spanish during six weeks of study abroad incorporate this regional variant into their second-language (L2) Spanish?
- 2) Do linguistic factors such as orthography, word position, and stress, and social factors such as gender, attitude toward Castilian Spanish, and degree of Spanish acculturation influence the pronunciation of Spanish /θ/?

SPANISH /θ/

Of course Spanish theta is not symptomatic of a speech defect. The voiceless interdental fricative /θ/ is simply a consonantal segment that, although fairly rare as a phoneme among the world's languages, does occur in such widespread languages as English, Standard Arabic, and Greek ("Voiceless Dental Fricative"). In the case of Castilian Spanish, the phoneme /θ/ is the result of a series of mergers that began in the late fifteenth century, affecting the Spanish Medieval sibilants /ts dz s z ʃ ʒ/.³ These changes were complete by the end of the seventeenth century in central and northern Spain and resulted in the fricative phonemes /θ s x/ typical of *distinción* varieties of modern Peninsular Spanish that make a phonemic distinction between /θ/ and /s/ in lexical pairs, such as *caza* /káθa/, "hunting," and *casa* /kása/, "house" (Hammond 346-47).

The evolution of the Medieval sibilants took a slightly different path in many parts of Andalucía based on the prestigious speech of Sevilla. In the south, these changes resulted in two fricative phonemes, /s/, and instead of the northern velar /x/, a laryngeal [h]. Consequently, pairs of words that show an orthographic contrast such as *casa/caza* are not distinguished phonemically and are therefore homophonous in much of Andalucía and all of the Americas. This lack of phonemic contrast between words spelled with *z* or *c(i,e)* and those spelled with *s* is known as *seseo* (Hammond 347).

³ For details of the evolution of the Spanish Medieval sibilants in northern and central Spain and in Andalucía, see Hammond and Penny.

Although the /s/ typical of central Andalucía, the Canaries, and throughout Spanish America is realized as a predorsal dental sibilant (similar to North American English /s/), in many coastal areas of Andalucía, including the cities of Huelva, Cádiz, and Málaga, a fronted variant /θf/ is preferred. This articulation, although somewhat weaker, is similar in its acoustic effect to /θ/, and therefore those dialects that neutralize the distinction between /s/ and /θf/ in favor of the latter have come to be known as showing *ceceo* (Penny 89; Pharies 195-96). The term *ceceo* is also the Spanish word for “lisp,” the abnormal articulation of sibilant consonants—especially dentalized variants of /s/, common among young children—which usually resolves itself spontaneously by around the age of four and a half (Bowen). Although not considered serious, older children who continue to lisp may be referred to a speech therapist for help as this condition may cause speakers some anxiety (Crystal 277). Perhaps because of its association with the abnormal lisp, dialectal Andalusian *ceceo* pronunciation is stigmatized outside of those speech communities that practice it. Whereas *distinción* and *seseo* are recognized by the Real Academia Española as acceptable pronunciation variants, *ceceo* is not (Hammond 361).

PREVIOUS STUDIES

The growing body of research in the variability of speech norms in L2 Spanish has begun to address the acquisition of dialectal features from a perspective that unites second language acquisition with regional and sociolinguistic variation (Geeslin). Nevertheless, to date, only a handful of studies has examined the acquisition of L2 Spanish theta. These studies typically examine the acquisition of /θ/ by American English-speaking high school or college learners studying abroad in settings where *distinción* is the norm and attempt to correlate use of theta with sociolinguistic features, such as level of L2 Spanish proficiency, attitude toward Castilian accent, gender, orthography, syllable stress, etc. Perhaps due to their differing methodologies, these studies present mixed findings.

In a study that investigated the acquisition of the dialectal variant /θ/ and the weakening of syllable-final /s/, which is a dialectal as well as a socially conditioned phonological process, Kimberly L. Geeslin and Aarnes Gudmestad found that only nine of 130 English-speaking university-level learners of Spanish produced /θ/. The authors, who

classified the participants into five proficiency levels ranging from third-semester learners to graduate students, discovered that only learners at the three highest levels of proficiency produced /θ/ and that, of these, the greatest use of /θ/ was among five graduate students, four of whom produced theta nearly categorically. Similar results were obtained for the /s/-weakening phenomenon. Geeslin and Gudmestad concluded that living abroad was not necessary for the acquisition of /θ/ and weakened /s/ and that experience abroad did not directly correlate to the use of these variants.

Erik W. Willis et al. examined the use of theta in highly motivated graduating high school seniors studying L2 Spanish for seven weeks in León, Spain. These researchers found increases over time of up to 70% in the pronunciation of /θ/ in eight of the nine learners. Willis et al. argued that these relatively high proficiency and motivated students were able to incorporate theta into their L2 after exposure to this feature within a study abroad milieu.

Kathryn Ringer-Hilfinger analyzed the acquisition of /θ/ in a cross-sectional study of English-speaking university students who spent a semester in Madrid. Although seven of the 15 participants in this study self-reported using theta, only two actually produced it; furthermore, there were only six instances of /θ/ out of the 209 total contexts in which it could have occurred. The author argued that her data suggested that the infrequent use of theta may have been due to factors such as increased contact with native speakers of a non-*distinción* variety of Spanish and instructor non-use of this variant.

In an investigation that compared the production of /θ/ between English-speaking L2 learners of Spanish participating in a six-week study abroad program in Salamanca, Spain, with that of learners enrolled in a six-week introductory course in Hispanic linguistics at an American university, Stephanie M. Knouse found very infrequent use of this variant among the study abroad learners: while seven of the 15 participants pronounced /θ/ at least once, there were only 36 realizations of this dialectal feature out of 2,119 contexts in which it could have occurred. Although the course in Hispanic linguistics was taught by an instructor who employed a *distinción* accent, none of the at-home learners produced theta, even though four of these students had previously studied in Spain. Knouse concluded that, despite exposure to /θ/ in either a study abroad or at-home context, students rarely employed this pronunciation.

Nevertheless, her data suggested that a study abroad experience may facilitate the use of this variant.

Angela George examined the development of the Castilian dialectal features /θ/ and the voiceless uvular fricative /χ/ among American university students participating in a 13-week study abroad program in Toledo, Spain. The author found that only a small percentage of students produced either feature with any degree of frequency and that the increase in the use of these variants was not significant over the course of the semester. She did observe, however, a significant effect for speech tasks among those few learners whose pronunciation of these features was more frequent: while both /θ/ and /χ/ occurred more frequently during formal word list and reading passage tasks, their use was less frequent in spontaneous speech. George suggested that this finding may have been due to a possible orthographic effect on read-aloud speech that had not yet appeared in less formal conversational speech.

Although the aforementioned studies represent an important contribution to the growing body of research on the acquisition of L2 Spanish dialectal features, their findings are not always consistent, and the picture that emerges of theta acquisition is therefore far from clear. The present investigation aims to provide further insight into why some L2 learners eschew /θ/ while others adopt it, albeit to varying degrees, by analyzing several linguistic and social factors that may play a role in promoting the use of this variant among L2 Spanish study abroad learners.

METHODOLOGY

Participants and Setting

The subjects for this study were 23 students (3 males, 20 females), aged 18 to 31 years, from the University of North Carolina at Wilmington (UNCW) participating in the university's six-week summer study abroad program in Úbeda, Spain. The participants were all native speakers of American English enrolled in my introductory Spanish phonetics course in Úbeda, where they received instruction on the pronunciation and social significance of /θ/. The use of theta was not specifically prescribed; rather, students were encouraged to use the accent with which they felt most comfortable—*distinción* or *seseo*. The subjects reported not knowing any other language besides Spanish and denied having received explicit instruction in Spanish pronunciation prior to their stay in Spain. All of the

participants had completed at least four semesters of university-level Spanish language courses, and their proficiency levels ranged from intermediate mid to intermediate high on the ACTFL Oral Proficiency Scale.⁴

Úbeda, a small town (pop. 36,000) in the province of Jaén in Spain's autonomous community of Andalucía, is particularly well suited for study abroad: designated a World Heritage Site by UNESCO in 2003, along with its nearby sister city of Baeza, Úbeda provides study abroad participants with the ideal setting to study Spanish language and culture intensively in a full immersion environment. Although the town is well known for its magnificent Renaissance architecture, the place is not particularly “touristy,” and the number of people who speak English there is limited.

The local variety of *Ubetense* Spanish, like many dialects in eastern and central Andalucía, is converging toward the pronunciation of the standard Castilian Spanish prestige model, especially the contrast between /s/ and /θ/, while retaining accepted regional features such as /s/-weakening in coda position. This *español común*, or “common Spanish,” which combines prestigious features of Standard Castilian and unmarked local variants, appears to be emerging as a new levelled koine in parts of central and southern Spain (Hernández-Campoy 706). All of the participants in the present study lived with local host families who distinguished between /s/ and /θ/.⁵

Instruments and Procedure

I made sample recordings with a Roland R-26 digital recorder of the subjects' Spanish pronunciation while reading a list of sentences on both a pretest and a posttest. The elicitation instrument consisted of two versions of a series of 18 randomized sentences containing 30 words that could have been pronounced with /θ/ (see Appendix A). These target words included 12 tokens each of orthographic *z* and *c(e,i)* in stressed and unstressed word-initial and medial positions. Additionally, there were six

⁴ I have received training in administering and scoring the OPI. However, given the informal conditions of the interview, this is an unofficial rating based on my best estimate.

⁵ The onsite host-family coordinator was aware of my research requirements and was requested to assign to students families who spoke the local variety of *distinción* Spanish. I later confirmed that the families did distinguish between /s/ and /θ/ by personally meeting with all of the host parents.

words in which *z* appeared word finally in stressed and unstressed codas.⁶ The sentence reading task rendered a total of 60 “theta” tokens per subject for both tests. To avoid repetition effects, participants read from different versions of the instrument on the pretest and the posttest.

The pretest was conducted just prior to departure for Spain. Before recording each subject performing the sentence reading task, I conducted a brief interview based on ACTFL’s Oral Proficiency Interview in order to rate the subject’s level of proficiency in Spanish.⁷ The participants also completed a questionnaire at this time, adapted from the Language Contact Profile (Freed et al.), which elicited background information regarding age, gender, first language (L1), amount of contact with other languages, number of years of formal Spanish study, age when formal Spanish study began, and previous experience in a Spanish-speaking country.

The posttest was recorded at the end of the six-week Úbeda program in order to evaluate any change in the subjects’ use of the target variant /θ/. During this session, the participants completed a Pronunciation Attitude Survey, or PAS (see Appendix B), a Likert-type test designed to measure the correlation between the subjects’ attitude toward sounding more like a native speaker of, specifically, Úbeda Spanish, and their use of theta. This survey was adapted from Elliott’s Pronunciation Attitude Inventory, or PAI (“Field Independence” 360), which renders a score ranging from 12 (negative attitude) to 60 (positive attitude). The test consisted of nine positive and three negative statements designed to elicit attitudes about the subjects’ acquisition of native or near-native pronunciation in Spanish. The multiple-choice response categories ranged from 5 = “Always or almost always true of me” to 1 = “Never or almost never true of me.” The negatively worded statements were reversed in scoring before adding them to the test total. The subjects also responded to an Acculturation Survey (AS) in order to evaluate the possible relationship between degree of acculturation towards Spanish society and the dialectal variant theta (see Appendix C). This instrument, based on the Stephenson Multigroup Acculturation Scale, or SMAS (Stephenson), employed a four-point Likert scale from 1 (false) to 4 (true) that elicited attitudes and behaviors pertaining to language use, social interaction, the media, and food designed to measure acculturation toward the dominant Spanish society. Lastly, the participants were asked to respond to the

⁶ Orthographic *c* before *e* or *i* does not occur word finally, of course.

⁷ I am a near-native speaker of Spanish who distinguishes between /θ/ and /s/.

following questions regarding their use of /θ/ while in Spain and whether they planned to continue this pronunciation after returning to the United States:

- 1) Do you pronounce words spelled with *z*, *ce* and *ci* with /θ/, “theta,” while you're here in Spain? Why or why not?
- 2) If you do use a theta pronunciation, do you plan to continue to pronounce this way after you return to the United States? Why or why not?

Data Analysis

I transferred the digital phonetic data from the recorder into a computer and analyzed all instances where /θ/ could have occurred—that is, the graphemes *z* and *c(e,i)*—with Praat acoustic analysis software (Boersma and Weenik) generating waveforms and spectrograms for each token. Each phone was coded as [θ], [s], or [z]. In a few cases, the grooved fricatives presented mixed voicing, and these tokens were subsequently coded as [z] if a majority of the segment was voiced (cf. Lewis and Boomershine; Schmidt and Willis). Excluding tokens that were unintelligible, or that were not stressed correctly (e.g., *fácil* > *[fa.θíl]; *actriz* > *[ák.triθ]), left 1371 tokens for analysis.

In order to measure the increase in the use of /θ/ between the pretest and the posttest, the data were scored for quantitative analysis using the SPSS paired-samples *t* test, which measures whether the mean difference between the scores on two different occasions is significantly different from zero. Although the items on the pretest and posttest sentence reading tasks were not identical, they were matched to form pairs based on orthography, position within the word, and stress (e.g. *cine* ~ *cinco*; *cerveza* ~ *ceniza*). Tokens that were pronounced with [θ] received a score of 2, while [s] and [z] tokens were given a score of 1.

In addition to the quantitative analyses described above, a variable rule analysis was performed using the multiple regression application known as GoldVarb X (Sankoff et al.) in order to evaluate the effect, if any, certain linguistic and social factors may have on the pronunciation of /θ/. GoldVarb X calculates the probabilistic weight for each independent factor and assigns to each a value ranging from 0.00 to 1.00. Researchers typically consider weights above 0.50 to promote the application of a variable rule—in this case, the use of /θ/—and view weights below 0.50 as inhibiting its application (Preston). The results of the posttest were used as the dependent variable for the multivariate analysis. The data were

coded in binary terms of “theta” [θ] or “non-theta” [s] / [z]. The sociolinguistic factors that served as the independent variables, or factor groups, for the GoldVarb X analysis are internal and external factors that have been previously analyzed in studies of /θ/ production, with the exception of gender and Spanish acculturation. The linguistic and social variables were analyzed in the same GoldVarb X run in order to assess the relative weight of multiple contextual influences on the variation in the data (Preston; Tagliamonte; Young and Bayley). These factor groups are described below:

Orthography. The data were coded for the graphemes *c(e,i)* and *z*. This variable was designed to evaluate the possible effect orthography had on the production of /θ/.

Word position. This factor group was included to see if position within the word had any effect on the realization of /θ/. The data were coded as “initial” or “non-initial” to avoid “knockouts,” or cases where a factor has a categorical effect on the variation in the dependent variable (Young and Bayley). Because the dependent variable never co-occurs with tokens spelled with the grapheme *c* in word-final position, this factor must be knocked out, or eliminated from the analysis.

Syllable stress. In order to see whether stress had any impact on the use of theta, the data were coded as occurring in a “stressed syllable” or “unstressed syllable.”

Gender. The data were coded as appropriate. This variable was included to evaluate any differences in the use of theta between males and females.

Pronunciation Attitude Survey (PAS). The PAS (described above) was designed to measure the correlation between the subjects’ attitude toward acquiring a native or native-like pronunciation in Spanish and their use of /θ/. Because the raw scores on the PAS fell within the “positive” or “somewhat positive” range with a median score of 46 out of 60, the data were coded as “more positive” (scores ranging from 46-58) and “less positive” (scores ranging from 39-45).

Acculturation Survey (AS). The results of the AS (described above) were included to examine the relationship between amount of acculturation towards Spanish society and the production of /θ/. The median score was 48 out of 60. The data were coded as “more acculturation” (scores ranging from 48-55) and “less acculturation” (scores ranging from 40-47).

RESULTS AND DISCUSSION

Table 1 gives the distribution by frequency of tokens that could have been pronounced with [θ] on the pretest and posttest. These results indicated minimal occurrence of [θ] on the pretest, with only four subjects producing a total of five instances of this phone. However, the use of [θ] increased by 12.27% on the posttest, with 16 of the 23 subjects producing a total of 89 realizations of this regional variant. The results shown in Table 1 also indicated a decrease in the pronunciation of [s] and [z] of 7.77% and 4.49%, respectively, between the pretest and the posttest.

Table 1. Distribution by Frequency of Tokens that Could Have Been Pronounced with Theta on the Pretest and Posttest

Phone	Pretest	Posttest	<i>N</i>	% (+/-)
[θ]	5	89	94	+12.27
[s]	491	437	928	-7.77
[z]	190	159	349	-4.49
Total <i>N</i>	686	685	1371	

Table 2 shows the frequency of occurrence of theta for all speakers who pronounced this variant at least once, either on the pretest or the posttest. Of the four subjects who produced [θ] on the pretest, only one, Speaker A, failed to do so on the posttest. As revealed in Table 2, the rate of acquisition of theta was quite variable, ranging from 0 (speaker A) to 14 (speaker C), with a mean occurrence of 5.56%.

A paired-samples *t* test was conducted to evaluate whether the increase in the speakers' overall production of [θ] between the pretest and posttest was statistically significant.⁸ The results indicated that the mean score on the posttest ($M = 1.13$, $SD = .336$) was significantly greater than the mean score on the pretest ($M = 1.01$, $SD = .085$), $t(680) = 9.11$, $p < .001$. These findings provide answers to this study's first research question: after six weeks of exposure to theta, the Úbeda program students did, as a whole, significantly increase their use of this dialectal feature. This significant increase is not surprising given that there were so few instances of [θ] on the pretest. The use of [θ] was quite variable with only 16 of the 23 participants producing this variant; moreover, no subject approached native speaker usage. These findings are similar to those of previous

⁸ The alpha level for significance was set at 0.05 for all statistical procedures.

studies that have generally reported infrequent use of theta after a period of study abroad (e.g., George; Geeslin and Gudmestad; Knouse; Ringer-Hilfinger).

All of the Úbeda program students were enrolled in my introductory course in Spanish phonetics/phonology, where they received information on the articulation, distribution, and social significance of theta and where the myth of a lisping Spanish king was thoroughly debunked. Although I used a theta dialect as the classroom model, I encouraged students to employ the system with which they felt most comfortable—*distinción* or *seseo*—with the recommendation that they strive for consistency. Clearly, the combined effect of exposure to theta in a study abroad context and explicit training in Spanish phonetics/phonology did not result in acquisition of this dialectal variant that was anything beyond modest. Still, theta is present in the data, accounting for 13% of possible occurrences on the posttest.

In order to account for the variability in the acquisition of theta among the Úbeda program participants, a variable rule analysis was performed to determine what linguistic and social factors may play a role in promoting the use of this feature. The results, shown in Table 3, furnish answers to this investigation's second research question: the independent variables of syllable stress, gender, and attitude toward acquiring a native or native-like pronunciation in Spanish as measured by the PAS were found to be statistically significant. The remaining factor groups of orthography, word position, and degree of acculturation as measured by the AS were discarded by the GoldVarb X program as not contributing significantly to the variation in the data.

Table 2
Frequency of Theta Production by Speaker

Speaker	Gender	Level ^a	Pretest	Posttest	<i>N</i>
A	M	IM	1	0	1
B	F	IM	2	3	5
C	F	IH	1	14	15
D	M	IH	1	4	5
E	F	IH	0	8	8
F	F	IM	0	4	4
G	F	IH	0	9	9
H	F	IM	0	1	1

I	F	IM	0	9	9
J	F	IM	0	8	8
K	M	IM	0	1	1
L	F	IM	0	2	2
M	F	IM	0	3	3
N	F	IM	0	2	2
O	F	IH	0	8	8
P	F	IM	0	4	4
Q	F	IH	0	9	9

a. Note: “Level” refers to estimated L2 Spanish proficiency level prior to departure for Spain. “IM” stands for “intermediate mid” and “IH” refers to “intermediate high.”

Table 3
Variable Rule Model of Linguistic and Social Factors Selected as Significant to the Probability of the Pronunciation of *c(e,i)* and *z* as [θ]^a

Corrected mean			.12
Log likelihood			-252.981
$p = .022$			
Total <i>N</i>			685
Factor group	Factor weight	%	<i>N</i>
Syllable stress			
Stressed	.59	17	307
Unstressed	.43	10	378
<i>Range</i>	<i>15</i>		
Orthography			
<i>z</i>	[.53]	13	409
<i>c</i>	[.46]	13	276
Word position			
Non-initial	[.51]	13	421
Initial	[.48]	13	264

Gender			
Female	.53	14	595
Male	.30	6	90
<i>Range</i>	23		
Pronunciation Attitude Survey			
More positive	.60	18	298
Less positive	42	9	387
<i>Range</i>	18		
Acculturation Survey			
Less acculturation	[.53]	14	327
More acculturation	[.47]	12	358

a. Note: Factor groups not selected as significant appear in square brackets.

Although I originally hypothesized that words spelled with the grapheme *z* would more likely be pronounced with /θ/ as in Knouse (9), and because *z* is typically used in American Spanish to represent theta for stereotyping Castilian speech and for humoristic effect (Morgan 288), this was not the case here. Nevertheless, the impact of orthography was observed in the data since only tokens pronounced with [z] were spelled with the grapheme *z*. In this study, the variant [z] is considered to be an unacceptable non-native pronunciation because it only occurs in Spanish before a voiced consonant, a phonological environment not examined here (Hammond 214). In order to measure whether the subjects improved their pronunciation by reducing their overall pronunciation of [z], a paired-samples *t* test was performed to evaluate whether the decrease in [z] tokens between the pretest ($N = 190$) and the posttest ($N = 159$) was significant (see Table 1). For this analysis, only tokens spelled with *z* were considered because the data contained no instance of orthographic *c(e,i)* pronounced as [z] (or any other non-native segment). While [z] tokens received a score of 2, [θ] and [s] variants were given a score of 1. The results showed that the mean score on the posttest ($M = 1.39$, $SD = .488$) was significantly less than the mean score on the pretest ($M = 1.46$, $SD = .499$), $t(405) = 2.47$, $p = .014$. Thus, the learners did improve their overall pronunciation of orthographic *z* by reducing their pronunciation of [z] on the posttest and, consequently, producing more acceptable native tokens, either [θ] or [s].

Even though learners made gains in reducing non-native [z], it is remarkable that this variant still accounts for 23% of the posttest data; this despite the learners' having received explicit instruction in the differences between [s] and [z] in English and Spanish, including the distribution of the voiced and voiceless allophones of Spanish /s/, extensive pronunciation practice in the classroom, and six weeks of immersion in a native Spanish-language milieu.

In regard to position within the word, I expected that medial position (e.g. *plaza*, *fácil*) would promote the pronunciation of /θ/, as in Willis et al., and because Knouse reported categorical use of theta in this position. As explained above, the data had to be re-coded for the GoldVarb X analysis in terms of "initial" or "non-initial" (i.e. medial and final) in order to account for the categorical non-occurrence of words spelled with the grapheme *c* in word-final position. Despite the re-coding, word position was not found to significantly affect the use of /θ/.

I hypothesized that more acculturation towards Spanish society would be associated with a higher rate of theta use based on John H. Shumann's acculturation model, which relates successful acculturation to successful L2 acquisition, and the assertion of many researchers that pronunciation is the most salient marker of a speaker's cultural identification (Giuora et al.; Labov; Lybeck; Scovel). Nevertheless, higher scores on the AS did not correlate significantly with an increase in theta production here. Apparently, some learners did not feel the need to abandon their original L2 Spanish *seseo* in order to embrace Spanish culture. Having traveled to southern cities such as Málaga and Sevilla where *seseo* dominates may have also convinced some students that theta is not required "to go Spanish."

The only linguistic variable found to have a significant effect on the pronunciation of /θ/ was the stress of the syllable. For this factor group, a stressed syllable favored the pronunciation of /θ/ (probability = .59), while an unstressed syllable did not (probability = .43). Although previous studies have found no correlation between stress and theta (e.g., Knouse; Willis et al.), I expected that learners would more likely produce this variant in a stressed syllable because the articulatory emphasis required by tonic stress manifests itself acoustically as more volume. According to James Lee and Bill VanPatten, L2 acquisition benefits are derived from input that contains characteristics that are simplified or otherwise enhanced such that language is easier to process:

The ability to make form-meaning connections is enhanced because the language is structured in such a way as to make certain features of language *acoustically more salient*. The forms and structure of the language are more easily perceived, and the learner has a greater chance to hear and process the form-meaning connections that are contained in the input. (41-42)

In the current study, it is possible that the increased saliency associated with tonic stress led learners to favor /θ/ by focusing their attention more on this dialectal feature when it occurred in a stressed syllable.

The factor group of attitude toward acquiring a native or native-like pronunciation in Spanish as measured by the PAS was also found to correlate significantly with theta. While a “more positive” attitude favored the use of /θ/ (probability = .60), a “less positive” attitude did not (probability = .42). These results support the findings of previous studies that have found that subjects who were more concerned about their pronunciation tended to exhibit greater accuracy in the pronunciation of L2 sounds (e.g., Elliott, “Field Independence;” Elliott, “Foreign Language Phonology;” Stevens; Suter). Nevertheless, two more recent studies that focused specifically on the acquisition of theta found no correlation between attitude and this dialectal feature. Although both Knouse and George expected to find a correlation between positive attitude toward acquiring a more native pronunciation in Spanish and the use of /θ/, this was not the case in either of these studies. The negative results in these studies were likely due to shortcomings in the testing instruments used to elicit attitudes about pronunciation. Knouse, for example, uses the Pronunciation Attitude Inventory (PAI) taken from Elliott’s original study (“Field Independence”), which only references the Spanish language in general and makes no specific mention of Peninsular Spanish or /θ/. George’s elicitation instrument likewise does not explicitly reference the pronunciation of theta and conflates attitude toward Castilian Spanish with attitude toward Spanish people in items such as: “Spaniards from Toledo are friendly” and “The more I get to know people from Toledo, the more I want to be fluent in their language” (99-100). The current investigation sought to remedy these methodological weaknesses by not conflating attitudes toward Spanish language and Spaniards in the PAS and by focusing specifically on the local variety of Úbeda Spanish, a dialect that distinguishes between /s/ and /θ/. The results found here suggest that subjects more concerned with sounding like a native of Úbeda were more likely to pronounce /θ/.

Table 3 reveals that the factor group of gender exerted the strongest effect on the application of the dependent variable as measured by the range of its factors' weights, in this case, 23.⁹ Whereas females slightly favored the use of [θ] (probability = .53), males strongly disfavored this pronunciation (probability = .30). This result may be interpreted in light of the language acquisition literature that indicates that females generally outperform males when it comes to language learning. Although the research on gender differences in L2 learners is rather sparse, studies have shown a gender gap in favor of female learners; for example, Joseph P. Boyle for Chinese learners of English; Clare Burstall and Beatrice Davies for British learners of French; and Tae-Il Pae for Korean students of English. These studies concur with the research on L1 acquisition, which provides further empirical support for females outperforming their male counterparts (see, *inter alia*, Cole; Huttenlocher et al.; Lietz; Ramer; Rosén; Wagemaker; Willingham and Cole).

Given the strong consensus on the language-learning advantage of females, it is not surprising that the female learners in the present investigation favored the use of /θ/ in contrast to the male learners who did not. However, it must be remembered that /θ/ was not necessarily the target pronunciation: these study abroad participants arrived to Spain with a perfectly viable L2 variant, /s/; and it was their choice whether to continue to pronounce orthographic *z* and *c(i,e)* with /s/ or adopt the new "Spanish" pronunciation of /θ/. In this case, it may be that the female learners were more likely to begin to acquire the sociolinguistic norms of the local speech community in which /θ/ is the standard variant. This interpretation seems to support the sociolinguistic research that maintains that female speech is more conservative and, paradoxically, more innovative compared to that of males (Díaz-Campos and Morgado; Holmquist; Labov; López Morales; Rissel). The female learners here tended to be conservative, favoring the variant considered to be normative; at the same time, however, they were innovative in their use of /θ/, which was for them a new L2 variant possessing sociolinguistic prestige, not only within the local community but also within the context of the national Castilian standard.

For their part, the male learners in the present study strongly disfavored the use of /θ/. One explanation for this finding may be that the

⁹ *Range* is used to determine the relative strength of significant factor groups. For further details, see Sali A. Tagliamonte.

males tended to eschew theta because of its negative association with an abnormal “lisp,” which is characterized by dentalized, or theta-like, variants of /s/ and /z/. Some support for this interpretation can be found in two of the male participants’ written responses regarding the use of /θ/. While both of these learners claimed to use /θ/ in Spain, they nevertheless produced only one instance of this variant between them on the posttest. These learners also indicated their intention not to use /θ/ upon their return to the U.S. One stated: “I don't want to be made fun of . . . I don't want people to ask why I speak with a lisp.” The other commented: “My Columbian [*sic*] friend told me that if I returned to the U.S. with a lisp, she wouldn't speak Spanish with me.”

It is also possible that the males in this study associated /θ/ with less-masculine or “gay-sounding” speech. According to Caroline Bowen, the characteristics of (English) gay speech may include, among other things, lisping, prolonged vowels and consonants, higher voice pitch, rising inflections, and emphasized final consonants. Although there is nothing inherently feminine or homosexual about lisping, given the lisping gay stereotype, many gay men may adopt this pronunciation in order to be recognized as a member of the gay community (Bowen). The three male learners in this investigation reported that they were not gay or bisexual (personal communication). In this case, it is possible that they disfavored the use of /θ/ in their L2 Spanish, wanting to avoid what they perceived to be either a speech defect, or an indicator of a sexual preference to which they did not subscribe.

CONCLUSION

To conclude, this study has presented evidence that American learners of L2 Spanish did, as a group, increase their use of /θ/ after six weeks of study abroad. Nevertheless, the frequency of occurrence of this dialectal variant was quite limited, with no subject approaching native-speaker usage. To account for the variability in the data, a GoldVarb X multivariate analysis was conducted that revealed a positive correlation between theta and the independent variables of lexical stress, attitude toward Castilian Spanish, and gender. The strongest effect was found for the factor group of gender, with females favoring and males strongly disfavoring theta pronunciation. Although the participants received explicit training in Spanish phonetics/phonology that included a sociolinguistic component

debunking the myth of the “lisping Spaniard,” it may be the case that six weeks was simply not long enough for the learners to replace their established L2 Spanish sibilant system with the norms of the local speech community. This may have been particularly difficult for the male learners, who, either consciously or unconsciously, may have continued to associate /θ/ with a speech defect and/or “gay-sounding” speech.

The limitations of the current study could be addressed in future investigations of this topic. For example, the inclusion of a native speaker control group from the study abroad setting (in this case, Úbeda) would serve to confirm the production of /θ/ in the phonological contexts in which it is purported to occur. In addition, a larger subject pool that included more males could add support to the statistical validity of the findings seen here. Such a data base could contain more naturalistic vernacular speech in addition to more formal speech styles. Finally, longer periods of study abroad could be examined in order to evaluate the effect length of stay may have on the acquisition of Spanish theta. Despite its limitations, this investigation has shed light on the need for Spanish instructors, at all levels of the curriculum, to have at least some basic training in phonetics/phonology in order to disabuse their students of the negative stereotypes surrounding the pronunciation of Spanish theta and thereby facilitate the acquisition of the socio-phonetic norms of Castilian Spanish speech communities that use /θ/.

Appendix A

Sentence Reading Task

Version A.

1. El cine está a dos cuadras de la zona roja.
2. Las personas zurdas prefieren usar la mano izquierda.
3. Algunas veces tomábamos una cerveza fuera de la ciudad.
4. La zeta es la última letra del alfabeto español.
5. Me gustan mucho las chuletas de cerdo con patatas fritas.
6. Dicen que la zanahoria es buena para la salud.
7. Hay varios elefantes africanos en el parque zoológico.
8. Debes limpiar tus zapatos sucios con un buen trapo.
9. Salimos mañana en tren para Madrid con una cesta de fruta y aceitunas para la abuela.
10. Me decía mi padre que era difícil reparar el coche francés sin aceite lubricante.
11. Se divisa el mar azul del horizonte blanco.
12. El azúcar andaluz es de buena calidad.
13. ¿Quieres apagar la luz de la sala por favor?
14. La ministra Eva Rodríguez afirma que hay demasiada pobreza en el país.
15. La doctora López es capaz de curarte la tos.

16. La piedra pómez sirve para quitarse las manchas de tinta de las manos.

17. Quedamos en la plaza a las seis, ¿vale?

18. Mi carpintero siempre trabaja con mucho esmero.

Version B.

1. Todos los signos del zodiaco están representados en el cielo nocturno.

2. Después de la cena ya te puedes comer el postre.

3. No es fácil atrapar los zorros gracias a su inteligencia.

4. Pon las cenizas de tu cigarrillo en este platillo por favor.

5. Es una estupidez conducir el coche estando ebrio.

6. El profesor prefiere usar lápiz y no bolígrafo.

7. El sacerdote bebe vino de un cáliz de oro.

8. Se venden productos como arroz, chorizo y verdura en el mercado de Baeza.

9. Andalucía es conocida por sus cazuelas de barro.

10. La famosa actriz Trini Silva es de Zamora.

11. No miraba por donde caminaba y--¡zas!--me caí en el pozuelo.

12. Tiene una buena razón por no querer irse de Túnez.

13. Mi madre suele tomar zumo de naranja con el desayuno.

14. El autobús para Zaragoza sale a las cinco de la tarde.

15. Hay que comprar cinco kilos de cebollas en esa tienda.

16. Mis tíos viven en la isla de Hawái.
17. Se montan unas fiestas bárbaras en casa de los Suárez.
18. El político no se entera de la misa la media.

Appendix B

The Pronunciation Attitude Survey

Please answer all items using the following response categories:

- 5 = Always or almost always true of me
- 4 = Usually true of me
- 3 = Somewhat true of me
- 2 = Usually not true of me
- 1 = Never or almost never true of me

1. I'd like to sound as much as possible like a native speaker of Úbeda Spanish.
2. Acquiring the proper pronunciation of Spanish from Úbeda is important to me.
3. I will never be able to speak Spanish with a good accent.
4. I believe I can improve my pronunciation skills in Spanish.
5. I believe more emphasis should be given to proper pronunciation in class.
6. One of my personal goals is to acquire proper pronunciation skills and preferably be able to pass as a near-native speaker of Spanish.
7. I try to imitate Spanish speakers from Úbeda as much as possible.

8. Communicating is much more important than sounding like a native speaker of Spanish.
9. Good pronunciation skills in Spanish are not as important as learning vocabulary and grammar.
10. I want to improve my accent when speaking Spanish.
11. I'm concerned with my progress in my pronunciation of Spanish.
12. Sounding like a native speaker of Spanish from Úbeda is very important to me.

Appendix C

Acculturation Survey

Below are a number of statements that evaluate changes that occur when people interact with others of different cultures or ethnic groups.

Circle the answer that best matches your response to each statement.

[Answers for each question: *false, partly false, partly true, true*]

1. I understand Spanish, but I'm not fluent in Spanish.
2. I am informed about current affairs in Spain.
3. I feel totally comfortable with Spanish people.
4. I have many Spanish acquaintances.
5. I feel at home in Spain.
6. I feel accepted by Spaniards.
7. I think in Spanish.

8. I regularly read a Spanish newspaper and/or listen to Spanish radio and/or watch Spanish television.
9. I feel comfortable speaking Spanish.
10. I always speak Spanish with my Spanish host family
11. I attend social functions with Spanish people.
12. I am familiar with important people in Spanish history.
13. I dream in Spanish.
14. I speak Spanish with other students on the UNCW summer program.
15. I like to eat Spanish foods.

Works Cited

- Boersma, Paul, and David Weenik. *Praat: Doing Phonetics by Computer*. Vers. 5.3.05, 2012, www.researchgate.net/publication/259810776_PRAAT_Doing_phonetics_by_computer.
- Bowen, Caroline. "Beyond Lipping: Code Switching and Gay Speech Styles." *Speech-Language-Therapy Dot Com*, 2002, www.speech-language-therapy.com/index.php?option=com_content&view=article&id=62:code&catid=11:admin&Itemid=108.
- Boyle, Joseph P. "Sex Differences in Listening Vocabulary." *Language Learning*, vol. 37, no. 2, 1987, pp. 273-81.
- Burstall, Clare. "Primary French in the Balance." *Educational Research*, vol. 17, 1975, pp. 193-8.
- Cedergren, Henrietta, and David Sankoff. "Variable Rules: Performance as a Statistical Reflection of Competence." *Language*, vol. 50, 1974, pp. 333-355.
- Cole, Nancy S. *The ETS Gender Study: How Females and Males Perform in Educational Settings*. ETS, 1997.
- Crystal, David. *The Cambridge Encyclopedia of Language*. Cambridge UP, 1987.
- Davies, Beatrice. "The Gender Gap in Modern Languages: A Comparison of Attitude and Performance in Year 7 and Year 10." *Language Learning Journal*, vol. 29, 2004, pp. 53-58.
- Díaz-Campos, Manuel, and Natalia Morgado. "A Sociolinguistic Study of the Use of Diminutives in Caracas, Venezuela: Interactions Between Sex and Social Class Variables." Unpublished manuscript, 1998.
- Elliott, A. Raymond. "Field Independence/Dependence, Hemispheric Specialization, and Attitude in Relation to Pronunciation Accuracy in Spanish as a Foreign Language." *The Modern Language Journal*, vol. 79, 1995, 356-71.
- . "Foreign Language Phonology: Field Independence, Attitude, and the Success of Formal Instruction in Spanish Pronunciation." *The Modern Language Journal*, vol. 79, 1995, pp. 530-42.
- Flama, Univision Communications Inc., www.youtube.com/user/flamatv.
- Freed, Barbara F., et al. "The Language Contact Profile." *Studies in Second Language Acquisition*, vol. 26, 2004, pp. 349-56.
- Geslin, Kimberly L. "Variation in L2 Spanish: The State of the Discipline." *Studies in Hispanic and Lusophone Linguistics*, vol. 4, 2011, pp. 461-517.

- Geeslin, Kimberly L., and Aarnes Gudmestad. "The Acquisition of Variation in Second-Language Spanish: An Agenda for Integrating Studies of the L2 Spanish Sound System." *Journal of Applied Linguistics*, vol. 5, 2008, pp. 137-57.
- George, Angela. "Study Abroad in Central Spain: The Development of Regional Phonological Features." *Foreign Language Annals*, vol. 47, 2014, pp. 97-114.
- Guiora, Alexander Z., et al. "The Effects of Experimentally Induced Changes in Ego States on Pronunciation Ability in a Second Language: An Exploratory Study." *Comprehensive Psychiatry*, vol. 13, 1972, pp. 421-28.
- Guy, Gregory R. "Advanced VARBRUL Analysis." *Linguistic Change and Contact*, edited by Kathleen Ferrar et al., University of Texas Department of Linguistics, 1988, pp. 124-36.
- Hammond, Robert M. *The Sounds of Spanish: Analysis and Application*. Cascadilla, 2001.
- Hausmann, Joanna. "Joanna Rants: Types of Spanish Accents." *Youtube*, uploaded by FLAMA, 1 Oct. 2015, www.youtube.com/watch?v=VIK-neOypDM.
- Hernández-Campoy, Juan Manuel. "Variation and Identity in Spain." *The Handbook of Hispanic Sociolinguistics*, edited by Manuel Díaz-Campos, Wiley-Blackwell, 2011, pp. 704-27.
- Holmquist, Jonathan. "Gender and Variation: Word-Final /s/ in Men's and Women's Speech in Puerto Rico's Western Highlands." *The Handbook of Hispanic Sociolinguistics*, edited by Manuel Díaz-Campos, Wiley-Blackwell, 2011, pp. 230-43.
- Huttenlocher, Janellen, et al. "Early Vocabulary Growth: Relation to Language Input and Gender." *Developmental Psychology*, vol. 27, no. 2, 1991, pp. 236-48.
- Knouse, Stephanie M. "The Acquisition of Dialectal Phonemes in a Study Abroad Context: The Case of the Castilian Theta." *Foreign Language Annals*, vol. 45, 2012, pp. 512-42.
- Labov, William. *Sociolinguistic Patterns*. U of Pennsylvania, 1972.
- Lee, James, and Bill VanPatten. *Making Communicative Language Teaching Happen*. McGraw-Hill, 1995.
- Lewis, Greg, and Amanda Boomershine. "The Realization of Word-Final, Preconsonantal /s/ in the Spanish of Mexico City." *Studies in Hispanic and Lusophone Linguistics*, vol. 8, 2012, pp. 157-76.

- Lietz, Petra. "A Meta-Analysis of Gender Differences in Reading Achievement at the Secondary School Level." *Studies in Educational Evaluation*, vol. 32, pp. 317-44.
- López Morales, Humberto. *La sociolingüística*. Gredos, 1989.
- Lybeck, Karen. "Cultural Identification and Second Language Pronunciation of Americans in Norway." *The Modern Language Journal*, vol. 86, 2002, pp. 174-91.
- Morgan, Terrell A. *Sonidos en contexto: Una introducción a la fonética del español con especial referencia a la vida real*. Yale UP, 2010.
- Pae, Tae-Il. "Gender Effect on Reading Comprehension with Korean EFL Learners." *System*, vol. 32, no. 2, 2004, pp. 265-81.
- Penny, Ralph. *A History of the Spanish Language*. 2nd ed., Cambridge UP, 2002.
- Pharies, David A. *Breve historia de la lengua española*. U of Chicago P, 2007.
- Preston, Dennis. "Variationist Perspectives on Second Language Acquisition." *Second Language Acquisition and Linguistic Variation*, edited by Robert Bayley, et al., John Benjamins, 1996, pp. 1-45.
- Ramer, Andrya, L. H. "Syntactic Styles in Emerging Language." *Journal of Child Language*, vol. 3, 1976, pp. 49-62.
- Ringer-Hilfinger, Kathryn. "Learner Acquisition of Dialect Variation in a Study Abroad Context: The Case of the Spanish [θ]." *Foreign Language Annals*, vol. 45, 2012, pp. 430-46.
- Rissel, Dorothy. "Sex, Attitudes, and the Assibilation of /r/ Among Young People in San Luis Potosí, México." *Language Variation and Change*, vol. 1, 1989, pp. 269-83.
- Rosén, Monica. "Gender Differences in Reading Performance on Documents Across Countries." *Reading and Writing*, vol. 14, 2001, no. 1, pp. 1-38.
- Sankoff, David, et al. *GoldVarb X: A Multivariate Analysis Application*. University of Toronto, 2005, www.individual.utoronto.ca/tagliamonte/Goldvarb/GV_index.htm.
- Schmidt, Lauren B., and Erik W. Willis. "Systematic Investigation of Voicing Assimilation of Spanish /s/ in Mexico City." *Selected Proceedings of the Fifth Conference on Laboratory Approaches to Romance Phonology*, edited by Scott M. Alvord, Cascadilla, 2011, pp. 1-20.
- Scovel, Thomas. *A Time to Speak: Psycholinguistic Inquiry into the Critical Period for Human Speech*. Newbury House, 1988.

- Shumann, John H. *The Pidginization Process: A Model for Second Language Acquisition*. Newbury House, 1978.
- Stephenson, Margaret. "Development and Validation of the Stephenson Multigroup Acculturation Scale (SMAS)." *Psychological Assessment*, vol. 12, no. 1, 2000, pp. 77-88.
- Stevens, John J. "The Acquisition of L2 Spanish Pronunciation in a Study Abroad Context." Dissertation, University of Southern California, 2000.
- Suter, Richard W. "Predictors of Pronunciation Accuracy in Second Language Learning." *Language Learning*, vol. 26, 1976, pp. 233-53.
- Tagliamonte, Sali A. *Analyzing Sociolinguistic Variation*. Cambridge UP, 2006.
- Tate, Catherine. "The Catherine Tate Show: The Offensive Translator." Youtube, uploaded by ShireChic, 20 May 2008, www.youtube.com/watch?v=XY66ZJ0TFUI.
- "Voiceless Dental Fricative." *Wikipedia*, en.wikipedia.org/wiki/Voiceless_dental_fricative.
- Wagemaker, Hans. *Are Girls Better Readers? Gender Differences in Reading Literacy in 32 Countries*. IEA, 1996.
- Willingham, Warren W., and Nancy S. Cole. *Gender and Fair Assessment*. Erlbaum, 1997.
- Willis, Erik W., et al. "The Acquisition of /θ/ by Study Abroad Learners in León, Spain." 13th Hispanic Linguistics Symposium, 21-24 Oct. 2009, Universidad de Puerto Rico, San Juan, PR, 2009. Conference presentation.
- Young, Richard, and Robert Bayley. "VARBRUL Analysis for Second Language Acquisition Research." *Second Language Acquisition and Linguistic Variation*, edited by Robert Bayley and Dennis Preston, John Benjamins, 1996, pp. 253-306.