Contextualizing Attitudes Toward Pronunciation: Foreign Language Learners in the United States

Amanda Huensch and Amy S. Thompson

University of South Florida, Department of World Languages, 4202 E Fowler Ave, CPR 107, Tampa, FL 33620 Email: huensch@usf.edu

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Abstract

While previous work has shown a relationship between pronunciation attitudes and pronunciation performance, the connection between language learning motivation and pronunciation attitudes has been underexplored. This study investigated the relationship between 195 foreign language learners' attitudes toward pronunciation, the foreign languages studied, extramural language activity, and motivation. Using an online, three-part survey, information was collected about their language learning backgrounds, their ideal, ought-to, and anti-ought-to selves (Thompson & Vásquez, 2015; Dörnyei, 2009), and attitudes toward pronunciation (Elliott, 1995a). The results from an exploratory factor analysis on the pronunciation items indicated a 3-factor solution: lack of native speaker bias, importance of improving pronunciation, and importance of communication/skills other than pronunciation. There were significant group differences for class level and extramural language activity regarding learners' perceived importance of improving pronunciation: Learners in upper-level classes as well as learners who participated in extramural language activity placed a higher importance on improving pronunciation. The results also indicated positive relationships between positive attitudes toward pronunciation and the ideal L2 self, and between a desire to improve pronunciation and the anti-ought-to self. The findings have implications for the selection of materials and instructional approaches.

Keywords: pronunciation, motivation, attitudes, all languages, post-secondary/higher education

Introduction

Pronunciation instruction is a critical component of successful language learning, given its connection to both intelligible and comprehensible speech (see e.g., Derwing, Munro, & Wiebe, 1997, 1998). Recently, Lee, Jang, and Plonsky's meta-analysis of pronunciation instruction literature (2015) demonstrated that pronunciation instruction results in "medium-to-large and statistically significant effect[s]" (p. 9). In addition, the increase in peer-reviewed publications (Lee, Jang, and Plonsky, 2015; Thomson & Derwing, 2015), new conferences (e.g., Pronunciation in Second Language Learning and Teaching), and new journals (e.g., the *Journal of Second Language Pronunciation*) that focus on pronunciation instruction highlight the important contribution such instruction makes in helping learners to produce comprehensible speech (see e.g., Derwing, Munro, & Wiebe, 1997, 1998; Thomson & Derwing, 2015).

Nevertheless, in their narrative review, Thomson and Derwing (2015, p. 3) reported that 74% of the 75 studies included in the review investigated learners of English in second or foreign language contexts. Similarly, while some researchers have investigated the pronunciation practices and beliefs of instructors and the attitudes toward pronunciation of learners in ESL contexts (e.g., Breitkreutz, Derwing, & Rossiter, 2001; Burgess & Spencer, 2000; Derwing, 2003; Foote, Holtby, & Derwing, 2011; Levis, 2015; MacDonald, 2002; Purcell & Suter, 1980; Suter, 1976), much less is known about the practices, beliefs, and attitudes of foreign language (FL) instructors and learners. A small body of research (Elliott, 1995a, 1995b; Kissling, 2014; Lord, 2008; Roccamo, 2014; Shively, 2008) has investigated learners' attitudes toward pronunciation in a FL context and compared these attitudes to production accuracy rates. A majority of these studies (Elliott, 1995a, Lord, 2008; Shively, 2008) demonstrated links between positive attitudes toward pronunciation and higher production accuracy rates. What has been

underexplored, however, is an examination of the factors that may contribute to these positive attitudes. Elliott (1995a) argued that a better understanding of these factors might allow instructors to specifically promote positive attitudes about pronunciation across different levels of L2 learning. Ultimately, if positive attitudes toward pronunciation are indeed linked to learner success, then having a better understanding of those attitudes will be beneficial for language teachers, administrators, and learners themselves. To that end, this study of FL learners at a large university in the U.S. investigated the relationships between attitudes toward pronunciation and the FLs studied, course level, extramural language activities, and motivation.

Review of Literature

The Changing Face of Language Enrollments in Higher Education

While in many countries, English is the *de facto* FL studied, such is not the case in the United States. According to the MLA database (MLA, https://apps.mla.org/map_main), the most commonly studied language at the university level in 1960 was French (229,640), followed by Spanish (179,892) and German (146,950). Since that time, the number of post-secondary students has increased, and along with it, the number of students studying FLs: MLA data for 2013 indicated that 1,383,331 students were enrolled in 2013 compared with 603,682 in 1960. This growth trend was also witnessed with less commonly taught languages such as Arabic (515 vs. 32,386), Chinese (1805 vs. 61,968), and Japanese (1754 vs. 66,740), whereas decreases occurred with the number of students studying French and German, whose enrollments fell to 197,757 (–14%) and 86,700 (–41%), respectively. The most notable change, however, was the relative surge in the number of students studying Spanish, a 340% increase from 179,892 students in 1960 to 790,756 in 2013. These Spanish enrollment figures are aligned with changes

in population demographics in the United States—in the 2011 census, approximately 61 million Americans spoke a non-English language at home, with 62% of those speaking Spanish. Given the changing demographics of enrollments in FL classes in higher education contexts in the United States (Furman, Goldberg, & Lusin, 2010) and in light of previous studies that have documented the effectiveness of pronunciation instruction, it would be useful to better understand differences in attitudes toward pronunciation across languages or instructional levels, explore learners' and instructors' attitudes toward pronunciation, and investigate the extent to which they feel that language learners should strive for native-like pronunciation of the target language, which is a cause of concern and anxiety for both language learners and instructors of FLs (e.g., Thompson & Fioramonte, 2013; Levis, Sonsaat, Link, and Barriuso, 2016).

Attitudes Toward Pronunciation

Much of the previous research investigating pronunciation attitudes for languages other than English has focused on learners of Spanish and explored the relationship between attitudes toward pronunciation and pronunciation accuracy and/or improvement. These studies have reported mixed results. Similar to previous findings from work investigating English language learners (Purcell & Suter, 1980; Suter, 1976), some FL research has found a relationship between attitudes toward pronunciation and higher pronunciation accuracy for Spanish learners (Elliott, 1995a, Lord, 2008; Shively, 2008), and German learners (Roccamo, 2014). For example, using a 12-question, Likert-scale Pronunciation Attitude Inventory (PAI) survey that probed learners' concerns for their pronunciation in a second language, Elliott (1995a) explored the extent to which cognitive, affective, and instructional variables could predict pronunciation accuracy in the production of 66 intermediate learners of Spanish who had English as a first language (L1).

Using a regression model predicting pronunciation accuracy scores from a variety of independent variables (e.g., pronunciation attitudes, gender, years of instruction, field independence, hemispheric specialization, grade point average), Elliott found that attitude toward pronunciation was the best predictor of accuracy. Shively (2008) investigated the relationship between concern for improving pronunciation and accuracy of segmental production in 36 English L1 learners of Spanish. Her results indicated a U-shaped curve such that those with the highest and lowest concern for pronunciation improvement had similar accuracy scores (p. 101), whereas those that showed moderate concern for pronunciation improvement had relatively low accuracy rates.

Other work (e.g., Elliott 1995b; Kissling, 2014) has not found a relationship between pronunciation attitudes and pronunciation improvement in Spanish FL learners. Elliot (1995b) explored the effects of individual differences and formal instruction on the improvement of pronunciation for 66 learners of Spanish. Correlation analyses were conducted with the PAI scores and pronunciation accuracy at the beginning and end of the semester, and a multiple regression was conducted to determine whether pronunciation attitudes predicted improvement in each of the target segments. Results indicated that, while pronunciation attitudes correlated significantly with pretest and posttest accuracy scores, attitude was not a significant predictor of improvement over the course of the semester, whereas pretest scores were. Similarly, in an investigation of the effects of instruction on the consonant productions of 74 Spanish FL learners at various proficiency levels, Kissling (2014) found that pretest scores best predicted posttest scores, and that pronunciation attitudes only contributed to explaining variance with the interdental fricative. Kissling (2014, p. 545) also reported small, but significant, correlations

between pronunciation attitude and number of university classes completed (r = .24), as well as time spent using Spanish outside of class (reported as hours per week) (r = .33).

In addition, knowing whether different learners at different levels exhibit similar or different attitudes toward pronunciation might help teachers better align their classroom practices with learner expectations and provide supplemental materials to those who desire it. Roccamo (2014), for example, compared the attitudes of first and fourth semester English L1 learners of German in an attempt to determine at which level it was best to begin pronunciation instruction. Although the fourth semester learners had a higher mean score on the PAI, no significant differences were found between the two groups regarding attitudes toward pronunciation (p. 147).

Taken together, studies have found mixed results with regard to the relationship between attitudes toward pronunciation and pronunciation accuracy, but findings have suggested that pronunciation attitudes may be influenced by other factors, such as a learner's current course level. Still underexplored is the way in which these factors might be linked to learner motivation.

The Self, Attitudes Toward Pronunciation, and the Teaching Environment

There are many studies examining language learning motivation and its relationship to achievement. However, little is known about the relationship of motivation and attitudes toward pronunciation. Dörnyei's (2009) L2 Motivational Self System (L2MSS) provides a helpful framework for exploring this relationship as it takes into consideration the psychological aspects of self (the ideal self and the ought-to self), which are inspired by possible selves (Markus & Nurius, 1986) and Self-Discrepancy Theory (Higgins, 1987). The L2MSS also incorporates

individuals' learning experiences, a part of which includes the language learning classroom environment.

Framed by these constructs, language learners who are motivated by an ideal self have the capacity to imagine themselves in a variety of language learning situations and strive to reduce the discrepancy between their current state as language learners and the future language user that they desire to become. The aspect of visualization is crucial to the ideal self construct, as learners need to be able to imagine their desired future selves in order to work toward this goal. As Dörnyei (2009) stated, "It has been found that the more elaborate the possible self in terms of imaginative, visual and other content elements, the more motivational power it is expected to have" (p. 19). The aspect of visualization includes sights, sounds, smells, and whatever other aspects the learners need to make the imagined future environment of which they are a part vivid and real. This also includes the capacity to imagine how one would want to sound when speaking the FL. Without the visualization aspect, learners would not be able to fully develop their ideal L2 selves. Contrarily, language learners who are motivated by an ought-to self are more affected by the external pressures for language study, such as parents, program requirements, work demands, or general societal pressures. Of these two selves, the ideal self has been more closely linked to language learning success.

More recently, Thompson & Vásquez (2015) proposed an additional dimension to the psychological aspect of the L2MSS – the anti-ought-to self. Inspired by psychological reactance (Brehm, 1966), this aspect of self is also influenced by external factors; however, unlike individuals who have a strong ought-to self, those with a strong anti-ought-to self are motivated to do the opposite of what external pressures demand. For example, a learner with a strong anti-ought-to self would be motivated by someone stating that a particular language is difficult to

learn. It has been proposed that the ideal and ought-to selves of the L2MSS were oversimplified in terms of the "I" versus "other" aspect of self-discrepancy theory (i.e., the "other" aspect was missing from the ideal self concept, and the "I" aspect was missing from the ought-to self concept) (Thompson & Vásquez, 2015). As such, the proposed anti-ought-to self concept brings together both the "I" and "other" aspects of self-discrepancy theory. Recent quantitative work using exploratory factor analyses has indicated that the anti-ought-to self is a related, albeit separate, latent dimension of the psychological aspects of self of English language learners in China (Liu & Thompson, 2017; Thompson & Liu, 2017), Saudi ESL learners in the United States (Alharbi, 2017) and FL learners in the United States (Thompson, 2017a). More details about the anti-ought-to self can be found in Thompson (2017b).

The L2MSS also takes into consideration the learning experience, which may have a direct relationship to the development of the psychological aspects of self. Although there are relatively fewer studies looking at language learning motivation in the classroom context, this point of inquiry is starting to gain momentum. Guilloteaux and Dörnyei (2008) conducted one of the first studies to investigate the impact of the teacher-student relationship on motivation. They found that when teachers modified instructional practices, their South Korean English language learners exhibited more motivated learning behaviors in the classroom. These authors suggested that teachers could be specifically trained to implement specific motivational strategies in the classroom. Magid and Chan (2012) worked with students from two different institutions (one each in England and Hong Kong) using a variety of activities to increase the learners' ideal L2 selves. They found that the activities helped learners to strengthen their L2 selves, to become more motivated and confident, and to have clearer language learning goals. Similarly, Erdil-Moody (2016) taught English teachers in Turkey motivational strategies that they could

implement in their classrooms and found that that the students in their English classes were overall more motivated and happier. Given the proposed connection between the ideal self and attitudes toward pronunciation, helping students achieve a stronger ideal self could also affect their attitudes toward pronunciation.

In sum, when conceptualizing the current study, the hypothesis was that there would be a relationship between positive attitudes toward pronunciation and the ideal and anti-ought-to selves. As indicated in the examination of the theoretical aspects of the L2MSS, which has been substantiated in empirical research, there is a relationship between visualization and the ideal L2 self (e.g. Al-Shehri, 2009). A competent language user will be proficient in all aspects of the language, and as the ideal L2 self involves strong visualization (including visual, olfactory, and auditory), the visualization aspect of the ideal self should help with pronunciation/speaking. Additionally, being able to visualize also indicates the attainability of the desired skill, in this case pronunciation. Regarding the anti-ought-to self, someone with this type of motivation relishes challenges, and pronunciation is recognized as a "difficult" aspect of language learning, especially for older learners; thus, those who have a positive attitude toward improving their pronunciation must have the ability to deal with the more challenging aspects of language learning.

The current study examined the pronunciation attitudes of FL learners at a large university in the Southeastern United States. Based on the tenets of the psychological aspects of self, it was hypothesized that those students who held a more positive attitude toward improving

pronunciation would also exhibit strong ideal and anti-ought-to selves. It addressed the following specific questions:

1. What underlying themes emerge in FL learners' attitudes toward pronunciation?
2. To what extent is there a relationship between FL learners' attitudes toward pronunciation and a) the language being learned; b) the class level (lower vs. upper); c) extramural language activity, and d) learners' motivational profiles?

Methods

Participants

Of the 270 participants in this study, 35 were excluded because they did not complete the sections of the survey required for the analyses, and 40 were excluded because they were not currently enrolled undergraduates. Because the pronunciation items were at the end of the questionnaire and not all students completed the questionnaire in its entirety, data from slightly fewer participants were used in the pronunciation analysis (n = 180) as compared to the motivation analysis (n = 195). Demographic information about the students who completed at least one full section of the survey are shown in Table 1.

<INSERT TABLE 1 ABOUT HERE>

The participants' mean age was 23 years old (SD = 7 years, range = 18-54). Of the 180 participants who completed the entire survey, a majority (n = 166) reported speaking English as a native language. Of the remaining 14 participants, eight reported speaking Spanish as a native language, and the final six reported speaking American Sign Language, Bengali, Cantonese, Haitian Creole, Persian, and Tamil as a native language. Only two participants reported being

heritage speakers of the FL they were studying (Spanish) and the remaining 12 had a variety of L1-L2 combinations (e.g., Tamil L1-Spanish L2, Cantonese L1-Japanese L2). These 14 participants were included in the analyses to accurately represent the student demographics.

Materials and Procedure

Data collection took place in 2016 at a large public university in the Southeastern United States. The survey contained three parts (background information, motivation questionnaire, and attitudes toward pronunciation questionnaire), took approximately 30 minutes to complete, and was administered online via Survey Monkey (www.surveymonkey.com). The three parts of the survey can be found on in the online supplementary materials as well as on IRIS (http://www.iris-database.org/). Instructors were forwarded the link to the survey, and the instructors in turn forwarded the link to their students. Upon completion, participants were eligible to receive one of three $25 Amazon gift cards.

The background questionnaire contained information from which several of the independent variables for the analyses were taken: language choice, class level, and extramural language activity. Extramural language activity was explored by the question which asked ‘how have you learned your foreign language?’ to which participants had the option of answering (a) minimum required courses, (b) optional courses, (c) after school language school, (d) at home on your own, and (e) friends or family members. Participants who indicated any options beyond the minimum required courses were coded as having participated in extramural language activities. The motivation and pronunciation items were primarily 6-point Likert-scale items (1 = “strongly disagree” or “never or almost never true of me”; 6 = “strongly agree” or “always or almost always true of me”) with open-ended items at the end where the participants could add more

information or comments. For the motivation questionnaire, items for the ideal, ought-to, and anti-ought-to selves were included; the ideal and ought-to selves were taken from Dörnyei and Taguchi (2010) and the anti-ought-to self items from Thompson and Liu (2017). “I can imagine myself living abroad and using this language effectively for communicating with the locals” is an example of an ideal self item; “If I fail to learn this language, I'll be letting other people down” is one of the ought-to self items; and “I want to prove others wrong by becoming good at this language” is an example of an anti-ought-to self item. The pronunciation questionnaire was adapted from Elliott’s (1995a) Pronunciation Attitude Inventory. The original PAI had 12 items; four items were added for the purpose of this study: two regarding the importance of speaker status (native vs. non-native) for teaching pronunciation, and two regarding the importance of focusing on skills other than pronunciation.

Analysis

To investigate the underlying themes in FL learners’ attitudes toward pronunciation, an exploratory factor analysis (EFA) was conducted. EFA is a statistical procedure that can reduce variables in questionnaire research by grouping together similarly-behaving items into factors, or underlying constructs (Loewen & Gonulal, 2015). Factors are given descriptive titles based on the content of the items that are grouped together. As items load onto each factor according to the strength of the relationship, the first few items in each factor are the most important in terms of naming the factors as a whole, but a synthesis of the content of all items is used to make the final decision in the factor name. Although in some instances one or two items might only be tangentially related to a factor name, this was not the case in the current study; all of the items in each of the three factors were directly related to the factor label (see Table 2 for a list of

questions and factor names). The values from the items of the resulting factors of the EFA were then averaged (with any negatively-loading items being reverse-coded), resulting in a single value for each factor for each learner. These values were used as dependent variables for the inferential statistical tests. Non-parametric tests were conducted because the assumptions for ANOVA, *t*-test, and Pearson's correlation were not always met (e.g., data were not normally distributed, outliers were present). Thus, non-parametric Kruskal-Wallis tests were conducted instead of parametric one-way ANOVAs in the instances when there were three groups for analysis, and non-parametric Mann-Whitney U tests were conducted instead of parametric independent samples *t*-tests when there were only two groups to compare. Effect sizes are reported as the absolute value of Cohen's *d* for between-group comparisons, and the recommendations of Plonsky and Oswald (2014) for interpretation were used: small effect (*d* = .40), medium effect (*d* = .70), and large effect (*d* = 1.00). Correlation analyses were conducted using Spearman's correlations.

Results

To investigate the underlying constructs in FL learners' attitudes toward pronunciation, an EFA (Maximum Likelihood extraction, direct oblimin rotation) was performed using the 16 pronunciation items (KMO = .852; eigenvalues > 1; item loading values > .3). The first iteration of the EFA resulted in a four-factor solution; however, factor four consisted of only two items, and one of those items (question three), loaded more strongly onto factor two. Thus, the remaining item that loaded onto factor four (item 12) was deleted and the EFA was re-run (Loewen & Gonulal, 2015). The result of the second EFA is presented in Table 2 and consisted of a three-factor solution: F1: lack of native-speaker (NS) bias (e.g., not believing that native

speakers are inherently more qualified to be pronunciation teachers), F2: importance of improving pronunciation, and F3: importance of communication/skills other than pronunciation. There were only two instances of cross-loading, questions 7 and 16, which loaded the most strongly onto F1: lack of NS bias, with a secondary loading onto F2: importance of improving pronunciation. The three factors explained 59.76% of the total variance (F1 – 35.57%; F2 – 15.16%; F3 – 9.03%). Cronbach's alphas were calculated to check the internal consistency of the items: F1 = .411;[1] F2 = .895; F3 = .713.

<INSERT TABLE 2 ABOUT HERE>

Figure 1 represents the values from the items of the three EFA factors that were averaged across all participants. As can be seen in the figure, the average score of lack of NS bias (F1) is 3.56, indicating that the participants had neutral to slightly positive feelings with regard to either NSs or non-native speakers (NNS) teaching pronunciation. The mean scores of importance of improving pronunciation (F2) and importance of communication/skills other than pronunciation (F3) are 4.90 and 4.22, respectively, indicating that the participants generally felt positive about wanting to improve their pronunciation and the importance of communication/skills other than pronunciation.

<INSERT FIGURE 1 ABOUT HERE>

The study next investigated the relationship between the language being learned and FL learners' attitudes toward pronunciation. Because the number of participants in each group needs

to be relatively comparable for purposes of analysis, each language could not be analyzed individually. Participants were thus split into three groups based on language choice. Group 1 included all Spanish learners (n = 68). Since a one-way ANOVA verified that the mean scores for the three concepts of "self" were not significantly different from each other for French, German, and Italian learners, these three languages were combined to form Group 2 (n = 67). Group 3 (n = 40) was composed of students studying Less Commonly Taught Languages (LCTLs): Arabic, ASL, Chinese, Greek, Japanese, Korean, Latin, Russian, and Urdu; as the numbers for each of these languages is typically small, language studies oftentimes combine students of LCTLs for comparison purposes.

Once language groups were formed, independent-samples Kruskal-Wallis Tests were conducted for each of the pronunciation attitude factors, with language choice as the independent variable. As shown in Table 3, no significant group differences were found with any of the pronunciation attitude factors: learners' lack of NS bias (F1, p = .613), learners' perceived importance of improving pronunciation (F2, p = .400), and learners' perceived importance of communication/skills other than pronunciation (F3, p = .452).

<INSERT TABLE 3 ABOUT HERE>

The study also investigated the relationship between class level and FL learners' attitudes toward pronunciation. Lower-level courses were those at the first or second semester and upper-level classes were those beyond the second semester. Mann-Whitney U tests were conducted for each of the pronunciation attitude factors with class level as the independent variable. As shown in Table 4, there was a significant group difference with learners' perceived importance of

improving pronunciation (F2, p = .009) with upper-level students rating the importance of improving pronunciation higher than lower-level students (d = .47). There were no significant group differences found with learners' lack of NS bias (F1, p = .659) or learners' perceived importance of communication/skills other than pronunciation (F3, p = .357).

<INSERT TABLE 4 ABOUT HERE>

In order to delve deeper into the impact of course level, participants were also asked how they learned the FL so as to investigate their engagement with extramural language activity. This allowed for an investigation of whether there was potentially an overlap between those students in the lower-level classes and those who were only learning their FL to meet the two-semester language requirement for graduation. Participant data were sorted based on level and extramural language activity to explore the relationship between these variables. As shown in Table 5, while almost all of the students in the upper-level courses reported extramural language activity (45 of 48), respondents at the lower level were more evenly distributed between the two categories with 58 (of 103) participating in some form of extramural language activity.

<INSERT TABLE 5 ABOUT HERE>

To examine the relationship between extramural language activity and FL learners' attitudes toward pronunciation, Mann-Whitney U tests were conducted for the pronunciation attitude constructs with extramural language activity as the independent variable. As shown in Table 6, there was a significant group difference with learners' perceived importance of

improving pronunciation (F2, $p < .001$) with students who indicated extramural language activity rating the importance of improving pronunciation higher than those who indicated required courses only ($d = .70$). There were no significant group differences found with learners' lack of NS bias (F1, $p = .128$) or learners' perceived importance of communication/skills other than pronunciation (F3, $p = .866$).

<INSERT TABLE 6 ABOUT HERE>

Finally, the study investigated the relationship between FL learners' attitudes toward pronunciation and their motivational profiles. To address this question, Spearman's correlations were conducted to assess the relationship between the pronunciation attitude constructs and the constructs of "self": ideal L2 self, ought-to self, and anti-ought-to self.

<INSERT TABLE 7 ABOUT HERE>

As shown in Table 7, there was a significant correlation between importance of improving pronunciation and both the ideal L2 self ($r = .544$) and the anti-ought-to self ($r = .275$).

The results of the current analysis indicated the relative importance of participation in extramural language activity in relation to attitudes toward improving pronunciation (Table 6) while simultaneously showing that some, but not all, lower-level students participate in extramural language learning activity (Table 5). It was also the case that only two of the motivational selves (ideal and anti-ought-to) significantly correlated with learners' perceived importance of improving pronunciation (Table 7). Thus, a closer investigation was warranted of

students enrolled in lower-level classes regarding those two aspects of self and attitudes toward pronunciation. The results in Table 8 indicate that there were significant differences for the ideal and anti-ought-to selves, as well as for the importance of improving pronunciation between those students at the lower level who participated in extramural language activities and those who did not.

<INSERT TABLE 8 ABOUT HERE>

Examining the pictorial representation of the resultant means in Figure 2 is also helpful in interpreting the relationship between extramural language activity and the significantly-related motivation and pronunciation factors for lower-level learners. Although there were significant differences for the ideal and anti-ought-to selves, as well as for the importance of improving pronunciation between those lower-level students who participated in extramural language activities and those who did not, effect sizes were small for the anti-ought-to self (d = 0.48) and learners' perceived importance of improving pronunciation (d = 0.50). Conversely, the effect size for the ideal self was large (d = 1.08). Those learners in lower-level classes who did not participate in extramural language activity had a neutral to slightly positive ideal self (M = 3.54), while those who did participate in extramural language activities had a strong ideal self (M = 4.79). For the anti-ought-to self, those lower-level learners who did not participate in extramural language activities generally disagreed with the questionnaire items for this factor (M = 2.93), while those lower-level students who did participate in extramural language activities had a neutral to slightly positive anti-ought-to self (M = 3.48). Both groups of lower-level students indicated a favorable attitude with regard to the importance of improving pronunciation,

although those who participated in extramural language activities had significantly stronger feelings toward this factor.

<INSERT FIGURE 2 ABOUT HERE>

Discussion

Variables Influencing a Learner's Desire to Improve Pronunciation

First, the study explored FL learners' underlying attitudes toward pronunciation. The EFA resulted in a three-factor solution; the most salient in terms of significant findings related to other learner variables was learners' perceived importance of improving pronunciation (F2). Results indicated that upper-level students placed a higher value on improving pronunciation (Table 4, $p = .009$; $d = .47$). However, when conceptualizing this question by considering how the students chose to learn the language, results indicated that those who participated in extramural language activities (anything beyond the minimum required courses) placed an even higher value on improving pronunciation, based on the medium effect size (Table 6, $p < .001$; $d = .70$). Taken together, these results suggest that it may be important to explore a division between those students who participate in extramural activities and those who do not (e.g., Sundqvist & Sylvén, 2016), as other research has indicated a connection between extramural language activity and linguistic development (Isabelli-García & Lacorte, 2016). The concept of extramural language study appears to be especially important for differentiating among lower-level language learners. Given that half of the lower-level students found ways to participate in extramural activities (Table 5), the question of participation in these activities does not appear to be one of linguistic competence. Based on the differing amounts of extramural language activity

for those students in the lower-level classes (Table 5), as well as the relationship found between the importance of improving pronunciation and the ideal and anti-ought-to selves (Table 7), a closer look was taken at extramural language activity for those students who were enrolled in the lower-level classes (Table 8). The most salient finding was with the ideal L2 self: lower-level students who engaged in extramural language activity had significantly stronger ideal selves than those who only participated in the minimum required courses.

This difference has implications for language instruction at lower levels: language instructors need to plan engaging activities for all types of students—those who spend time outside of class engaging with the language and those who do not. This concern is especially relevant given that enrollment numbers are the highest for the first two semesters of FL courses at most universities. A closer look at the student profiles in the first two semesters of language courses in the context of the United States would also help educators better understand how to differentiate instruction and appeal to learners who exhibit different learning profiles and have different needs and interests. Perhaps one of the most difficult aspects of language teaching is to help students understand the importance of engaging in language-related activities outside of the classroom. Thus, making students aware of activities and opportunities beyond the classroom, sharing with them data on the relationship between the number of hours spent using the language and progress toward increased proficiency, inviting students to share with classmates the reasons why and the ways in which they use the language outside the classroom, as well as obtaining an understanding of why students choose not to engage in extramural language activities might also be helpful. Language activity logs have been used in previous research in study abroad and at-home-immersion contexts (Freed, Dewey, & Segalowitz, 2004; Isabelli-García & Lacorte, 2016; McManus, Mitchell, & Tracy-Ventura, 2014; Sundqvist & Sylvén, 2016). Future research could

adopt similar methods to explore the extramural language activity of learners enrolled in FL classes.

It was hypothesized that learners of different languages might have distinct attitudes regarding improving pronunciation. For example, it is plausible that learners of a language that is perceived as "difficult" for L1 English speakers, such as languages that are eligible for the Critical Language Scholarship (CLS, http://clscholarship.org/), would have different attitudes toward pronunciation than learners of Spanish, the most commonly studied language in the United States. However, there were no significant differences between language groups regarding their perceived importance of improving pronunciation (Table 3). These results indicate that, for the learner population under consideration in this study, attitudes toward pronunciation are not language specific and that improving pronunciation was important to learners studying all languages. Although more research needs to be done to strengthen the generalizability of these findings, these initial results indicate that studies of pronunciation attitudes toward one language can provide insights into understanding pronunciation attitudes toward another language. While the proportion of students studying various languages in the current study accurately represents the overall enrollment in these various languages nationwide, gathering more information from students who choose to learn the less-commonly-studied languages would add to an understanding of the profiles of language students as a whole.

The Self, Attitudes Toward Pronunciation, and the Teaching Environment

It appears that previous studies have not investigated the relationship between attitudes toward pronunciation and language learning motivation; however, exploring this relationship is beneficial because of the strong connection between language learning motivation and language

learning achievement. As hypothesized, there was a significant, medium correlation between learners' perceived importance of improving pronunciation and the ideal self. Considering the fact that the ideal L2 self strongly incorporates the idea of being able to visualize oneself using and interacting in the target language (e.g., Al-Shehri, 2009), learners with strong ideal selves would naturally want to envision interacting in contexts where the FL is used. Actively participating in the target culture entails having an innate desire to reduce the discrepancy between the current/actual self of the language learner and the role models of more competent users of the language that exist in the surrounding context. This process of reducing the discrepancy between one's current self and a future ideal self inevitably involves all aspects of language learning, including improving pronunciation. Additionally, there was a significant, albeit weak, correlation between learners' perceived importance of improving pronunciation and the anti-ought-to self. Because those with strong anti-ought-to selves relish challenges, and pronunciation is considered to be a difficult skill to improve, this significant relationship is not surprising.

These results have direct implications for language learning classrooms. As part of the first week of class, language instructors can gather information about their students' motivation and attitudes toward pronunciation so as to have a clearer picture of the characteristics of the students. Simple open-ended questions, such as "Why are you taking this course?" (basic motivation), "What previous experience do you have with this language both in and out of the classroom?" (extramural language experience), and "What are the language skills that you would most like to work on in this class?" (attitudes toward pronunciation) are a good place to start. A few Likert-scale questions about motivation and pronunciation attitudes can also be added to the background survey to give the language instructor quantifiable data as well. Appendix A

includes a sample background information handout, and Appendix B provides the answer key to Appendix A. The motivation items included on this handout were those that loaded strongly on each factor of the EFA in Thompson (2017a), indicating that they are the most relevant for the FL context in the United States. The items regarding the linguistic skills were chosen in a similar way with an additional item included that specifically talks about class activities. With the information from this short teaching tool, the instructor can create visualization activities that are most suited to the class. Over the course of several semesters, and by sharing the visualization activities among colleagues, language instructors will have a repository of such activities to use with a variety of classes at different levels.

Equally as important as the significant relationships found between learners' perceived importance of improving pronunciation and the motivation factors are the implications of the relationships that were not significant. There was not a significant correlation between the ought-to self and the desire to improve pronunciation, indicating that those who were taking the language out of a sense of obligation placed relatively lower value on pronunciation skills. It is likely that students who enroll in language courses only to meet a program or a graduation requirement are more likely to have a stronger ought-to self rather than ideal self. Therefore, language teachers might consider developing ways to help learners to actualize their ideal selves by means of enhanced visualization activities, for example, those that emphasize both the personal and professional benefits of language proficiency (see the techniques suggested in Magid and Chan, 2012, and Erdil-Moody, 2016). Visualization strategies are directly connected to pronunciation because the "vision," so to speak, must contain all aspects of language and context: sights, sounds, and smells. The vision should also include both input and output in the target language in all modalities. One scenario presented in Magid and Chan (2012) was a step-

by-step visualization activity about how to be successful in a job interview (p. 5). For those students in FL classes who are taking the class only to satisfy a requirement, the visualization activities could be simpler, such as classroom activities like visualizing a class presentation, or traveling activities like buying something at a market while abroad. As indicated in both Magid and Chan (2012) and Erdil-Moody (2016), the implementation of visualization strategies was effective at increasing language students' ideal L2 self. With a stronger ideal L2 self as the result of increased visualization activities, learners might also potentially increase their desire to improve their pronunciation.

Intelligibility as the Goal for Foreign Language Classrooms

As discussed previously, the most salient factor of the EFA was learners' perceived importance of improving pronunciation. However, two other factors also emerged: learners' lack of NS bias (e.g., not believing that native speakers are inherently more qualified to be pronunciation teachers), and learners' perceived importance of communication/skills other than pronunciation. While neither significantly distinguished between any of the learner variables in the current study, both factors have pedagogical implications. The open-ended responses to the question "Do you have any other feelings about FL pronunciation that are not included above?" can provide some insights to these constructs.

For example, regarding learners' lack of NS bias, no learners commented that having a NS teacher was preferable, and several learners commented on the ability of NNSs to teach pronunciation. One participant stated, "I don't feel like it is necessary to have a native speaking instructor, especially since they are more likely to introduce colloquialisms I am unfamiliar with." While some previous literature from ESL/EFL contexts has indicated that students have a

preference for NS pronunciation teachers (see Moussu & Llurda, 2008 for a review of the literature), Levis et al. (2016) point out that these preferences might vary depending on factors such as student proficiency level (Madrid & Cañado, 2004) and experience with NNS teachers (Braine, 2005). Levis et al. (2016) also demonstrated that a teacher's language status had no significant impact on students' actual improvement of comprehensibility and accentedness. The results of the current study indicated that many students in this FL context did not perceive their teachers' non-nativeness as an obstacle to successful pronunciation instruction, although the low Cronbach's alpha results indicated that these results should be interpreted with caution. Discussing the NS bias in FL classrooms can help learners develop realistic expectations of language learning outcomes. Many learners may strive for native-like pronunciation causing them concern and anxiety (e.g., Thompson & Fioramonte, 2013; Levis, Sonsaat, Link, and Barriuso, 2016), not being aware that intelligibility may be a more appropriate goal. As such, in the teaching tools provided in the appendices, the wording of "native" was intentionally used in the language skills items to promote discussion on this topic.

In the open-ended comments related to learners' perceived importance of communication/skills other than pronunciation, the participants primarily focused on the importance of effective communication. For example, one student stated, "I only care for proper pronunciation if it might interfere with communication within the language." Another student indicated that pronunciation is not more important than other skills: "I actually think that pronunciation is just as important as vocabulary and grammar because they all work together for effective communication." These results indicate that the students in the current study valued focusing on the communicative aspects of language rather than on decontextualized grammar points or segmental features without communicative value. Thus, when teachers integrate

pronunciation teaching in the classroom, the data suggest that they should make sure to include a focus on communicative aspects and highlight those pronunciation features of the L2 that contribute to increased intelligibility and comprehensibility (e.g., Burgess & Spencer, 2000).

Conclusion

The current study is a first step in understanding the connection between language learning motivation and attitudes toward pronunciation. The main findings suggest a strong connection between one's desire to improve pronunciation and the ideal self. The results also raised some interesting questions regarding profile differences of upper-level and lower-level students in terms of engagement in extramural language activities. With a better understanding of the relationship between pronunciation attitudes and motivational profiles, a next step in this line of inquiry is to incorporate measurements of proficiency development to explore not only the development of learners with particular profiles, but also how, if at all, the attitudes and motivational profiles of these learners evolve as their proficiency increases.

Notes

1. This Cronbach's alpha value is below the accepted value of .7. As these items were newly created for this study, more work needs to be done to improve the internal reliability of the theme "attitudes toward NNS teachers."

2. It is possible for an item to load positively on one factor and negatively on another factor, based on the factor themes. In the case of item 16, it loaded most strongly (and positively) onto lack of NS bias (F1), and thus, was considered to be mostly related to that theme. It had a lower (negative) loading on importance of improving pronunciation (F2), meaning that having a NS teacher in *not* important for improving pronunciation, as the negative loading reverses the meaning of the statement.

References

Alharbi, F. (2017). The dynamics of the L2 motivational self system among Saudi study abroad students (Unpublished doctoral dissertation). University of South Florida, Tampa, FL.

Al-Shehri, A. S. (2009). Motivation and vision: The relation between the Ideal L2 Self, imagination and visual style. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 164-171). Bristol, UK: Multilingual Matters.

Braine, G. (2005). A history of research on non-native speaker English teachers. In E. Llurda (Ed.), *Non-native language teachers: Perceptions, Challenges, and Contributions to the Profession* (pp. 13-23). New York: Springer Science and Business Media.

Brehm, J. (1966). *A theory of psychological reactance.* New York: Academic Press.

Breitkreutz, J., Derwing, T. M., & Rossiter, M. J. (2001). Pronunciation teaching practices in Canada. *TESL Canada Journal, 19,* 51-61. doi: 10.18806/tesl.v19i1.919

Burgess, J., & Spencer, S. (2000). Phonology and pronunciation in integrated language teaching and teacher education. *System, 28,* 191-215. doi: 10.1016/S0346-251X(00)00007-5

Critical Language Scholarship Program (2016). Accessed 22 September 2016 at http://clscholarship.org/

Derwing, T. M. (2003). What do ESL students say about their accents? *Canadian Modern Language Review, 59,* 547-567. doi: 10.3138/cmlr.59.4.547

Derwing, T. M., Munro, M. J., & Wiebe, G. (1997). Pronunciation Instruction for Fossilized Learners. Can it Help? *Applied Language Learning, 8,* 217-235.

Derwing, T. M., Munro, M. J., & Wiebe, G. (1998). Evidence in favor of a broad framework for pronunciation instruction. *Language Learning, 48,* 393-410. doi: 10.1111/0023-8333.00047

Dörnyei, Z. (2009). The L2 motivational self system. In Z. Dörnyei and E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 9–42). Bristol, UK: Multilingual Matters.

Dörnyei, Z., & Taguchi, T. (2010). *Questionnaires in second language research: Construction, administration, and processing* (2nd ed). New York: Routledge.

Elliott, A. R. (1995a). Field independence/dependence, hemispheric specialization, and attitude in relation to pronunciation accuracy in Spanish as a foreign language. *The Modern Language Journal, 79*, 356-371. doi: 10.1111/j.1540-4781.1995.tb01112.x

Elliott, A. R. (1995b). Foreign language phonology: Field independence, attitude, and the success of formal instruction in Spanish pronunciation. *The Modern Language Journal, 79*, 530-542. doi: 10.1111/j.1540-4781.1995.tb05456.x

Erdil-Moody, Z. (2016). *Promoting L2 motivation via motivational teaching practice: A mixed-methods study in the Turkish EFL context* (Unpublished doctoral dissertation). University of South Florida, Tampa, Florida.

Foote, J. A., Holtby, A. K., & Derwing, T. M. (2011). Survey of the teaching of pronunciation in adult ESL programs in Canada, 2010. TESL Canada journal, 29, 1-22. doi: 10.18806/tesl.v29i1.1086

Freed, B. F., Dewey, D. P., & Segalowitz, N. (2004). The language contact profile. *Studies in Second Language Acquisition, 26*, 349–356. doi: 10.1017/S027226310426209X

Furman, N., Goldberg, D., & Lusin, N. (2010). Enrollments in languages other than English in United States Institutions of higher education, Fall 2009. Modern Language Association. http://www.mla.org/pdf/2009_enrollment_survey.pdf

Guilloteaux, M. J., & Dörnyei, Z. (2008). Motivating language learners: A classroom-oriented investigation of the effects of motivational strategies on student motivation. *TESOL Quarterly, 42*, 55-77. doi: 10.1002/j.1545-7249.2008.tb00207.x.

Higgins, E. T. (1987). Self–discrepancy: A theory relating self and affect. *Psychological Review*, *94*, 319–340. doi: 10.1037/0033-295X.94.3.319

Isabelli-García, C., & Lacorte, M. (2016). Language learners' characteristics, target language use, and linguistic development in a domestic immersion context. *Foreign Language Annals, 49*, 544-556. doi: 10.1111/flan.12215

Kissling, E. M. (2014). What predicts the effectiveness of foreign language pronunciation instruction? Investigating the role of perception and other individual differences. *The Canadian Modern Languages Review, 70*, 532-558. doi: 10.3138/cmlr.2161

Lee, J., Jang, J., & Plonsky, L. (2015). The effectiveness of second language pronunciation instruction: A meta-analysis. *Applied Linguistics, 36*, 345-366. doi: 10.1093/applin/amu040

Levis, J. (2015). Learners' views of social issues in pronunciation learning. *Journal of Academic Language and Learning, 9*, A42-A55.

Levis, J. M., Sonsaat, S., Link, S., & Barriuso, T. A. (2016). Native and nonnative teachers of L2 pronunciation: Effects on learner performance. *TESOL Quarterly*. doi: 10.1002/tesq.272

Liu, Y., & Thompson, A. S. (2017). Language learning motivation in China: An exploration of the L2MSS and psychological reactance. (volume, issue, page numbers, and DOI forthcoming). *System.*

Loewen, S. & Gonulal, T. (2015). Exploratory factor analysis and principal components analysis. In L. Plonsky (Ed.), *Advancing quantitative methods in second language research* (pp. 182 – 212). New York: Routledge.

Lord, G. (2008). Podcasting communities and second language pronunciation. *Foreign Language Annals, 41,* 364-379. doi: 10.1111/j.1944-9720.2008.tb03297.x

MacDonald, S. (2002). Pronunciation—Views and practices of reluctant teachers. *Prospect, 17,* 3-18.

Madrid, D., & Cañado, M. L. P. (2004). Teacher and student preferences of native and nonnative foreign language teachers. *Porta Linguarum, 2,* 125-138.

Magid, M., & Chan, L. (2012). Motivating English learners by helping them visualise their Ideal L2 Self: Lessons from two motivational programmes. *Innovation in Language Learning and Teaching, 6,* 113-125. doi: 10.1080/17501229.2011.614693

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41,* 954–969. Doi: 10.1037/0003-066X.41.9.954

McManus, K., Mitchell, R., & Tracy-Ventura, N. (2014). Understanding insertion and integration in a study abroad context: The case of English-speaking sojourners in France. *Revue française de linguistique appliquée, 19,* 97-116.

Modern Language Association Language Maps. (2016). Accessed 17 June 2016 at https://apps.mla.org/map_main

Moussu, L., & Llurda, E. (2008). Non-native English-speaking English language teachers: History and research. *Language Teaching, 41,* 315-348. doi: 10.1017/S0261444808005028

Plonsky, L., & Oswald, F. L. (2014). How big is “big”? Interpreting effect sizes in L2 research. *Language Learning*, *64*, 878-912. doi: 10.1111/lang.12079

Purcell, E. T., & Suter, R. W. (1980). Predictors of pronunciation accuracy: A reexamination. *Language Learning*, *30*, 271-287. doi: 10.1111/j.1467-1770.1980.tb00319.x

Roccamo, A. (2014). *Comparing the success of pronunciation instruction in elementary and intermediate German language classrooms* (Unpublished doctoral dissertation). The Pennsylvania State University, University Park, PA.

Shively, R. L. (2008). L2 acquisition of [β],[ð], and [ɣ] in Spanish: impact of experience, linguistic environment, and learner variables. *Southwest Journal of Linguistics, 27*, 79-115.

Sundqvist, P., & Sylvén, L. K. (2016). *Extramural English in teaching and learning*. London, Palgrave Macmillan.

Suter, R. W. (1976). Predictors of pronunciation accuracy in second language learning. *Language Learning, 26*, 233-253. doi: 10.1111/j.1467-1770.1976.tb00275.x

Thompson, A. S. (2017a). Language learning motivation in the United States: An examination of language choice and multilingualism, (volume, issue, page numbers, and DOI forthcoming). *The Modern Language Journal.*

Thompson, A. S. (2017b). Don’t tell me what to do! The anti-ought-to self and language learning motivation, (volume, issue, page numbers, and DOI forthcoming). *System.*

Thompson, A. S., & Fioramonte, A. S. (2013). Non–native speaker teachers of Spanish: Insights from novice teachers. *Foreign Language Annals*, 45, 564-579. doi: 10.1111/j.1944-9720.2013.01210.x

Thompson, A. S. & Liu, Y. (2017). Multilingualism and emergent selves: Further development of the anti-ought-to self. (volume, issue, page numbers, and DOI forthcoming). *International Journal of Bilingual Education and Bilingualism.*

Thompson, A. S., & Vásquez, C. (2015). Exploring motivational profiles through language learning narratives. *The Modern Language Journal,* 99, 158-174. doi: 10.1111/modl.12187

Thomson, R. I., & Derwing, T. M. (2015). The effectiveness of L2 pronunciation instruction: A narrative review. *Applied Linguistics*, *36*, 326-344. doi: 10.1093/applin/amu076

Appendix A

Sample Background Information Handout

Student Information Sheet for [insert class here]

Name and e-mail:_____

Program/major: _____

Previous language and culture classes taken: _____
_____

Previous experience with the language outside of the classroom (e.g., travel abroad, club, friend):
_____

Why are you taking this class? _____
_____

What are the language skills that you would most like to work on in this class? _____
_____

Circle the number that most accurately represents your thoughts for each item below.	1 = strongly disagree and 6 = strongly agree
Motivation items	
1. I can imagine myself living abroad and using this language effectively for communicating with the locals.	1 2 3 4 5 6
2. If I fail to learn this language, I'll be letting other people down.	1 2 3 4 5 6
3. I chose to learn this language despite others encouraging me to study something different (another language or a different subject entirely).	1 2 3 4 5 6
4. I can imagine a situation where I am speaking this language with foreigners.	1 2 3 4 5 6
5. I have to study this language, because if I do not study it, I think my parents will be disappointed with me.	1 2 3 4 5 6
6. I want to study this language, despite other(s) telling me to give up or to do something else with my time.	1 2 3 4 5 6
7. I can imagine myself speaking this language with international colleagues.	1 2 3 4 5 6
8. Learning this language is necessary because people surrounding me expect me to do so.	1 2 3 4 5 6
9. I am studying this language even though most of my friends and family members don't value foreign language learning.	1 2 3 4 5 6
Language skills items	
1. I'd like to sound as native as possible when speaking this language.	1 2 3 4 5 6
2. Knowledge in grammar and vocabulary is more important than accurate pronunciation for successful language learning.	1 2 3 4 5 6
3. Acquiring accurate pronunciation in this language is important to me.	1 2 3 4 5 6
4. Communicating is more important than sounding like a native speaker of this language.	1 2 3 4 5 6
5. I believe more emphasis should be given to accurate pronunciation in class.	1 2 3 4 5 6
6. I would rather spend class time working on communicating in this language, rather than spending time on pronunciation.	1 2 3 4 5 6

Appendix B

Sample Background Information Handout Answer Key

Motivation items

Ideal self: Items 1, 4, and 7

Ought-to self: Items 2, 5, and 8

Anti-ought-to self: Items 3, 6, and 9

If you would like your students to interpret their own answers, you can use the following handout:

Interpretation of your answers: Write the score that you indicated for each question below.

Ideal L2 self	Ought-to L2 self	Anti-Ought-to self
1.	2	3.
4.	5.	6.
7.	8.	9.
Total score for this section:	Total score for this section:	Total score for this section:

The section with the highest score indicates your strongest type of motivation for language learning.

Ideal L2 self: You are motivated by an inner desire to learn this language. Visual imagery is an important component of the language learning process for you.

Ought-to L2 self: You are motivated by external factors (others and/or what is expected of you).

Anti-ought-to self: You are motivated by the desire to do something challenging/unexpected. You might have a desire to prove others wrong in their expectations of what you can achieve.

Language skill items

Importance of improving pronunciation: Items 1, 3, and 5

Importance of skills other than pronunciation: Items 2, 4, and 6

Note: The items for language skills are to help instructors to get to know how their students feel about pronunciation versus other skills. Depending on student responses, a discussion of the native speaker bias

might be appropriate. Thus, there is no handout for students to interpret their results for these items, as there is for the motivation items.

Table 1

Participant Demographic Information

	Total	Male	Female	1st Year	2nd Year	3rd Year	4th/5th Year	Lower Level[c]	Upper Level
Motivation[a]	195	57	138	15	36	71	73	116	50
Motivation and Pronunciation[b]	180	50	130	11	35	67	67	106	48

[a] L2s represented were Spanish (70), French (49), German (16), Japanese (11), Chinese (9), English (7), Arabic (6), Latin (6), Italian (5), ASL (4), Greek (3), Russian (2), Korean (2), Urdu (2), and unreported (3).
[b] L2s represented were Spanish (68), French (49), German (15), Japanese (12), Chinese (9), English (5), Arabic (4), Latin (5), Italian (3), ASL (3), Greek (2), Russian (2), Korean (2), and Urdu (1).
[c] Lower Level denotes those in the first and second semesters of language instruction.

Table 2

Factor Loading for the Lack of NS Bias, Importance of Improving Pronunciation, and Importance of Communication/Skills Other than Pronunciation

	Factor			
	1	2	3	h^2
Factor 1: Lack of NS bias				
7. I believe a non-native speaker can be a good pronunciation teacher.	.963	.327		.999
16. It is important to me that my teacher is a native speaker of my second language so that I have a model for accurate pronunciation.[2]	-.371	.309		.254
Factor 2: Importance of improving pronunciation				
1. I'd like to sound as native as possible when speaking my second language.		.893		.801
2. Acquiring accurate pronunciation in my second language is important to me.		.861		.748
6. One of my personal goals is to acquire accurate pronunciation and preferably be able to pass as a near-native speaker of the language.		.821		.685
13. Sounding like a native speaker is very important to me.		.811		.669
11. I want to improve my accent when speaking my second language.		.736		.550
8. I try to imitate speakers of my second language as much as possible.		.647		.418
5. I believe more emphasis should be given to accurate pronunciation in class.		.598		.368
4. I believe I can improve my pronunciation skills in my second language.		.579		.335
3. I will never be able to speak my second language with a good accent.		-.415		.260
Factor 3: Importance of communication/skills other than pronunciation				
14. Knowledge in grammar and vocabulary is more important than accurate pronunciation for successful language learning.			.656	.407
9. Communicating is more important than sounding like a native speaker of my second language.			.646	.438
15. I would rather spend class time working on communicating in my second language, rather than spending time on pronunciation.			.635	.419
10. Good pronunciation skills in my second language are not as important as learning vocabulary and grammar.			.560	.341

Table 3

Results for Language Choice

	Spanish (n = 68)		French, German, Italian (n = 67)		LCTLs* (n = 40)		Kruskal-Wallis Results
	M	SD	M	SD	M	SD	
F1	3.44	1.21	3.69	1.11	3.64	0.92	$\chi^2(2) = 0.979$, $p = .613$
F2	4.94	0.93	4.81	0.91	5.03	0.87	$\chi^2(2) = 1.834$, $p = .400$
F3	4.31	0.93	4.17	0.85	4.16	0.98	$\chi^2(2) = 1.588$, $p = .452$

Note. *Less Commonly Taught Languages included: Japanese (12), Chinese (9), Latin (5), Arabic (4), ASL (3), Greek (2), Russian (2), Korean (2), Urdu (1)

Table 4

Results for Class Level

	Lower Level (n = 106)		Upper Level (n = 48)		Mann-Whitney U Results		
	M	SD	M	SD	*z*	*p*	*d*
F1	3.57	1.11	3.61	1.09	0.44	.659	.04
F2	4.73	0.97	5.15	0.82	2.62	.009	.47
F3	4.17	0.96	4.35	0.83	0.92	.357	.20

Table 5

Participants Separated by Class Level and Extramural Language Activity

	Required Courses Only	Extramural Activity
Lower Level	45	58
Upper Level	3	45
Level Not Reported	3	20

Table 6

Results for Extramural Language Activity

	Required Courses Only (n = 51)		Extramural Activity (n = 128)		Mann-Whitney U Results		
	M	SD	M	SD	*z*	*p*	*d*
F1	3.75	1.11	3.49	1.11	1.52	.128	.23
F2	4.43	1.13	5.09	0.72	3.56	.000	.70
F3	4.23	0.99	4.21	0.87	0.17	.866	.02

Table 7

Correlations between the Pronunciation Attitude Constructs and the Constructs of "self"

	F1: Ideal L2 Self	F2: Ought-to Self	F3: Anti-Ought-to Self
F1: Lack of NS Bias	r = –.118, p = .114	r = –.005, p = .950	r = .068, p = .365
F2: Importance of improving pronunciation	r = .544*, p < .001	r = .021, p = .778	r = .275*, p < .001
F3: Importance of communication/skills other than pronunciation	r = .050, p = .508	r = .011, p = .880	r = .048, p = .523

Note. * significant differences at the p < .01 level

Table 8

Extramural Activity and the Significantly Related Motivation and Pronunciation Themes for Lower-Level Students

	Required Courses Only (*n* = 48*)		Extramural Activity (*n* = 67*)		Mann-Whitney U Results		
	M	SD	M	SD	*z*	*p*	*d*
Ideal self	3.54	1.40	4.79	0.84	4.82	.000	1.08
Anti-ought-to self	2.93	1.12	3.48	1.19	2.31	.021	.48
Importance of improving pronunciation	4.46	1.08	4.94	0.82	2.14	.032	.50

Note. *The participant numbers for the pronunciation theme were slightly lower, as indicated in the methods section: $n = 45$ for required courses only; $n = 58$ for extramural activity.

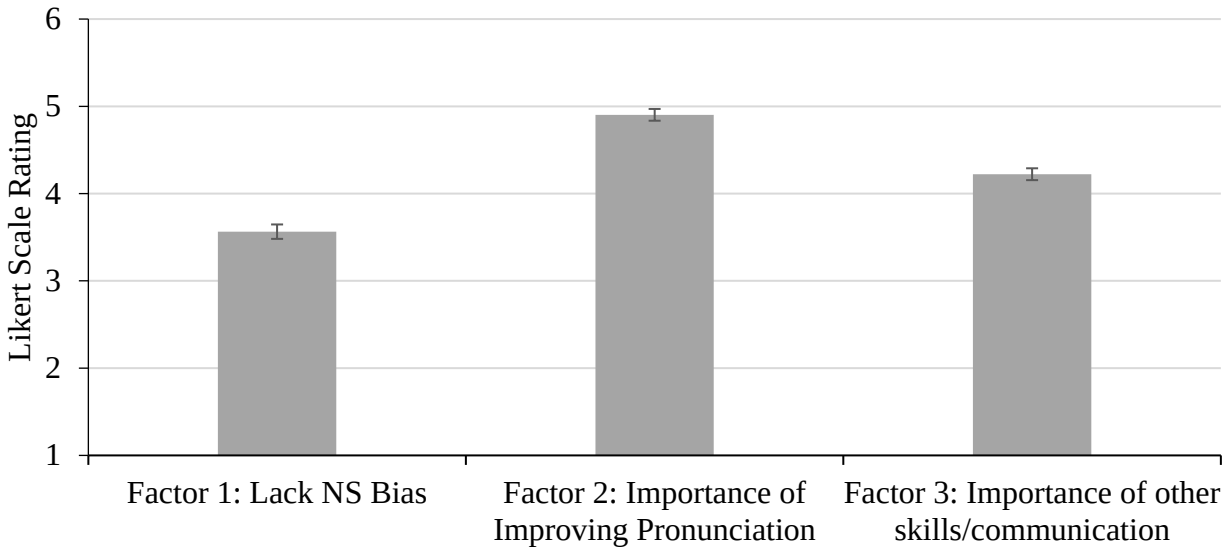

Figure 1. Factor averages across all participants for the pronunciation attitude inventory. For the Likert scale rating, 1 represents "Never or almost never true of me" and 6 represents "Always or almost always true of me."

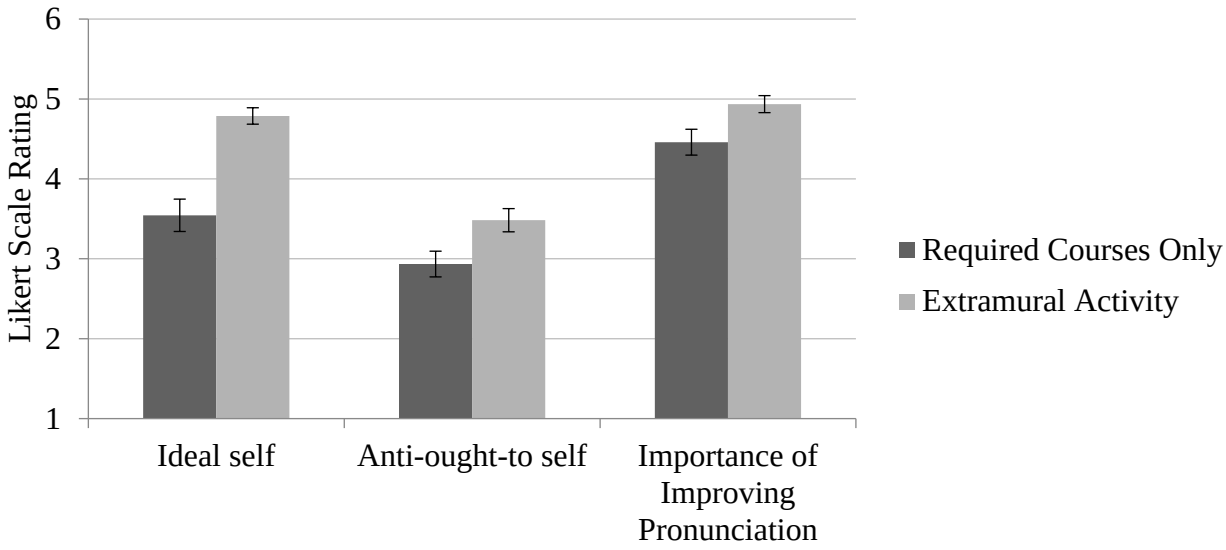

Figure 2. Factor averages of the significantly related motivation and pronunciation themes for lower-level learners grouped by extramural activity. For the Likert scale rating, 1 represents "Never or almost never true of me" and 6 represents "Always or almost always true of me."