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Policies and practices regarding students with accents in speech-language pathology training programs

Key words: service delivery, cultural/linguistic diversity, English as a second language/bilingualism/dialects, intelligibility, professional policy

Abstract

Speech-language pathology (SLP) training programs are the initial gateway for non-native speakers of English to join the SLP profession. An anonymous web-based survey in New York State examined policies and practices implemented when SLP students have foreign accents in English or in other languages. Responses were elicited from 530 students and 28 clinic and program directors. Few policies delineated criteria for determining how native-like or intelligible students' speech needed to be in order for them to work effectively or for determining when accent modification was required. Students with foreign accents in English were asked more often to undergo accent modification than were students with foreign accents in Spanish or other languages. Strategies for practices regarding SLP students with accents are proposed.

Policies and practices regarding students with accents in speech-language pathology training programs

The paucity of bilingual SLPs is an international problem. Jordaan's (2008) survey in thirteen countries found that, although 71% of children came from bilingual homes, 74% of SLPs were monolinguals and 87% reported they provided monolingual intervention. Based, in part, on Jordaan's survey, the multilingual affairs committee of the International Association of Logopedics and Phoniatrics (2006) has developed guidelines for working with bilingual populations. These guidelines state that it would be ideal if SLPs could have native or near native fluency in both languages when working with bilinguals. According to Jordaan, this implies that training programs for professionals should include a requirement for high proficiency in at least two languages spoken in the community.

SLP students and professionals in the U.S. remain predominantly native speakers of English who are not proficient in any other language (Kritikos, 2003). In fact, as recently as 2009, less than 6% of the American Speech-Language-Hearing Association (ASHA) members identified themselves as bilingual (ASHA, 2010). Meanwhile, the number of residents in the U.S. whose first language is not English is on the rise, with nearly one in five U.S. residents 5 years and older coming from a home where a language other than English is spoken (U.S. Bureau of the Census, 2009). This is true even in states previously known for their homogeneity (Kohnert, Kennedy, Glaze, Kan, & Carney, 2003). Thus, finding proficient SLPs in clients' native languages is increasingly difficult.

Roseberry-McKibben et al.'s (2005) national survey of SLPs revealed that the main perceived problem among SLPs serving English language learners is that they do not speak their clients' native language. Kritikos (2003) also found a mismatch between clients' and their SLPs' languages, with SLPs often rating themselves as not proficient or somewhat proficient in their second (non-native) language (L2).

Accent and intelligibility in SLP

Little is known about how SLPs' mastery of a language's phonology, morphology, syntax, semantics, and pragmatics affects their service delivery in that language (Langdon, 1999). The phonological domain was chosen as the focus of this study, in part because an accent may be the most salient and persistent marker that a language is not one's first, as delineated by Flege's (1995) Speech Learning Model (SLM), and described in numerous studies (e.g., Flege, Bohn, & Jang, 1997). According to the SLM, learning L2 speech involves forming new categories for the speech sounds in that language. If one's native phonology is already formed, this may interfere with one's ability to discern the acoustic differences needed for the creation of new L2 categories. Thus, large numbers of late learners of a language may continue to rely on native categories, producing accented speech long after their other linguistic domains have been mastered or nearly mastered.

"Accent" is defined here as non-native (non-pathological) pronunciation that differs from native pronunciation norms (Munro & Derwing, 1995) and is characterized by features of the speaker's native language (Flege, 1995). The focus here is on foreign accents, although dialectal variations often face similar issues. It should be noted that "each of us has an accent" (Morley, 1996, p. 142, see also ASHA, 1998, 2004) in that people are perceived as having an accent by individuals from a different language background. It should further be noted that issues surrounding non-native speech also apply to non-native phonemes in American Sign Language

(Valli & Lucas, 1995).

Distinctions need to be made among the phenomena of “accent,” “intelligibility,” and “comprehensibility.” Intelligibility is defined here as the extent to which a native listener understands the speaker’s intended message and can be measured, for example, in terms of the accuracy with which a listener transcribes a speaker’s utterances. Comprehensibility is defined as a listener’s perception of a speaker’s intelligibility, and can be measured by having listeners judge (on a rating scale) how difficult an utterance is to understand. Although the phenomena are linked, the relationships among accent, intelligibility and comprehensibility are quasi-independent (Derwing & Munro, 1997). That is, speakers perceived as having heavy accents may or may not be fully intelligible. As an example of accented, but intelligible, speech, Levy and Law II (2010), found that some native American English speakers produced French speech sounds in a non-native manner (e.g., Parisian French front rounded /y/ as similar to /ju/) that was intelligible to native speakers of French. In addition, one fully-intelligible accented utterance may be less easily processed than another one, leading to different comprehensibility ratings for two equally-intelligible utterances (Munro, Derwing, & Morton, 2006). Generally, ratings of accents are harsher than comprehensibility ratings, which are harsher than intelligibility scores (Derwing & Munro, 1997).

In the field of SLP, the question of the relative importance of accent and intelligibility is complex. In any profession, intelligibility may be a priority for ease of processing and successful communication (Shmid & Yeni-Komshian, 1999). A special characteristic of the field of SLP, however, is that accurate (rather than simply intelligible) speech and language is often the target of service. For example, an SLP may need to model and perceive the accuracy of speech sounds for a child with a phonological disorder. Yet this may not be true for SLPs providing services for dysphagia. Thus, beyond intelligibility, an SLP’s accent (or degree of accent) itself may or may not be a consideration. It must be noted that a clinician with an accent in one treatment language is likely to speak without a foreign accent in another treatment language. Thus, consideration of effects of a clinician’s accent must include all languages in which he or she is likely to practice.

Research on effects of accent and intelligibility in SLP

Studies have indicated that intelligibility of accented speech is affected by particular language pairings, degree of accent (Bent and Bradlow, 2003; Shmid and Yeni-Komshian, 1999), familiarity with an accent (e.g., Flowerdew, 1994), attitude toward accents (Lefkowitz & Hedgcock 2002), the listener’s age (Burda, Overhake, & Thompson, 2005), and linguistic properties (Munro, Derwing, & Morton, 2006). For example, vowel production errors are more detrimental to intelligibility than are consonant production errors, and segmental errors at the beginning of a word are more detrimental to intelligibility than are errors in other word positions (Bent, Bradlow, & Smith, 2008). Particular difficulty comprehending accented speech has been found for listeners with communication disorders, including adults with dementia (Mahendra, Bayles, & Tomoeda, 1999) and aphasia (Burda, Brace, & Hosch, 2007), and children with speech sound disorders (Nathan & Wells, 2001; cf. Wilkinson & Payne, 2005).

Implications for modifying accent or increasing intelligibility

The studies referred to above do not offer conclusions regarding differential effects of accent vs. intelligibility. Yet concerns over accent vs. concerns over intelligibility may call for different strategies to improve a speaker’s performance. Over the past 25 years, a widely-accepted goal in the field of second-language teaching has increasingly become intelligibility (e.g., through work on suprasegmental aspects of speech) rather than eliminating accents (Levis,

2005) because the evidence suggests that nativelike pronunciation may not be an achievable target for most speakers if languages are learned in adulthood (Lenneberg, 1966). When intelligibility is a priority, intelligibility-enhancing techniques such as “clear speech” may be implemented, although not always achieving its goal of increasing intelligibility (e.g., Ferguson & Kewley-Port, 2002; Levy, Garcia, Leone, & Lew, 2010; Rogers, DeMasi, & Krause, 2010). (Clear speech is a mode of speech utilized when conversing with individuals with hearing impairments. Its acoustic characteristics include slower rate of speech, less vowel reduction, and more frequent release of final consonants than conversational speech [Picheny, Durlach, & Braida, 1986].) When native-like or accurate speech is the target, practices such as accent modification (a term used for accent reduction or pronunciation teaching) may be called upon, despite often limited results (Levis, 2005).

ASHA’s (1998) technical report addressed questions of efficacy of accented SLPs. The document advised faculty and clinical supervisors to ask whether the student has the expected knowledge and skills in communication disorders. The report stated that no research suggests that SLPs with nonstandard dialects or accents cannot make appropriate diagnoses or attain treatment outcomes. According to this document, a student’s ability to “model the target phoneme, grammatical feature or other aspect of speech and language that characterizes the client’s particular problem” is an appropriate consideration when the student provides services in his/her non-native language (p. 2). Moreover, the report stated that students cannot be denied entrance into an SLP program solely on the basis of the presence of an accent or dialect.

Thus, ASHA’s focus is on clinicians’ accents, not on their intelligibility, nor on their perceptual skills. Accent modification, then, would be expected to follow as the course of action to be taken if a clinician is unable to model a particular sound. However, accent modification may not be the most effective means to increase his or her communication, as a milder accent (if accent modification is successful) does not necessarily predict greater intelligibility or comprehensibility (Derwing & Munro, 1997), nor the ability to perceive speech sounds in a more native-like manner.

It should also be noted that ASHA’s (1998) position statement and technical report focused on SLPs with accents in English. As most SLPs in the U.S. are native speakers of English (ASHA, 2004; Kritikos, 2003; Saenz, Wyatt, & Reinard, 1998), a more frequent scenario than SLPs with accents in English is native speakers of AE providing SLP services in Spanish. With L2s learned at an average age of 12 years old in the U.S. (Pufahl, Rhodes, & Christian, 2001), beyond many individuals’ “critical” or “sensitive” period in phonological development, it is likely that a majority of the native speakers of English working bilingually in the U.S. have American English accents in Spanish. Thus, information regarding working with accents in languages other than English is needed to address most situations in the U.S. when clinician and client stem from different language backgrounds.

The present study

Despite the lack of clarity on how to measure accent and how to assess the importance of native-like speech and intelligibility, SLP training programs engage in the daily work of determining whether their students’ pronunciation is accurate/intelligible enough for SLP service delivery. The present survey was designed to examine language backgrounds of SLP students, their plans to practice in their non-native languages, and the policies and practices regarding students with accents at universities in the linguistically-diverse state of New York. Of interest were 1) the language backgrounds and speech/language skills of SLP students in New York State

and their plans to practice in their non-native languages, 2a) the policies and practices implemented in the state's SLP programs when an SLP student is perceived as having a non-native accent, 2b) whether intelligibility was considered within these policies and practices, and 3) whether differences were present in the application of policies and practices to the various languages in which students provide services. It was expected that 1) most SLP students would be monolingual native American English speakers, although a portion would speak Spanish and fewer would speak other languages, 2) few policies would exist and practices would be diverse and not intelligibility-based, given the paucity of data on this topic, and 3) policies would differ depending on the language spoken with an accent because of the need for clinicians who speak languages other than English and differential attitudes toward English vs other languages.

Method

Item and instrument development

Two questionnaires were designed: The "director survey" was generated for department and program chairs, clinic directors, and clinic coordinators, all referred to here as "directors." The "student survey" was designed for SLP students at undergraduate and graduate institutions. Initial instruments were developed based on interviews with clinic staff and survey methods used in the SLP field and beyond (e.g., Roseberry-McKibben et al, 2005; Silverman & Keating, 2002). The major areas identified for inclusion were students' language backgrounds and skills, languages in which they planned to practice, and policies and practices when SLP students had foreign accents. The director survey requested information about policies and practices regarding students with accents (see https://www.surveymonkey.com/s.aspx?sm=GNvsGpTgARrHhgxPOq_2f9rA_3d_3d). The student survey requested information about respondents' language backgrounds and their experience of practices involving SLP students with accents (https://www.surveymonkey.com/s.aspx?sm=X2YPmGMPV_2b_2fbVyINUKcbYg_3d_3d). Self-ratings of proficiency and pronunciation were included, as well as information about age of acquisition, as a growing body of literature indicates that self-ratings of proficiency and pronunciation generally correlate with standardized test scores and ratings by naïve judges (e.g., Grosjean, 1982; Langdon, Wiig, & Nielsen, 2005). The surveys were input electronically, using SurveyMonkey© (www.surveymonkey.com) software with an encryption device to assure anonymity. This permitted the authors access to responses, but not to identifying information about their source.

A faculty member with expertise in survey design, two SLP clinic directors, and three master's students at two universities with large credentialing programs provided feedback on the design, clarity, content, and length of the surveys. Based on this feedback, the instruments were modified, primarily by adding response options. Next, a clinic supervisor and two SLP master's students at two universities provided further feedback, and minor changes were made to the surveys. Finally, one clinic supervisor and seven SLP students at a university participated in a pilot study. In a "comments" section, they were asked to provide feedback on parts that needed clarification and to make suggestions for improving the content and format of the surveys. As a result, minor revisions were made, primarily involving shortening the surveys. The pilot responses were not included in data analysis for the surveys. Based on the multiple rounds of pilot testing, the instruments were determined to be clear and to provide good data to analyze on the topic of policies and practices involving SLP students with accents. For the scope of this

article, an analysis of responses to only the most relevant questions on the surveys is presented.

Participants and sampling procedure

The director survey was sent to e-mail addresses for 9 undergraduate-only programs and 24 graduate programs (some of which also had undergraduate programs) in NY listed on university websites. The first page requested that the survey be forwarded to other NY university SLP clinic directors, co-directors, and coordinators. The survey was also circulated in the Metropolitan Council of Clinic Directors and the National Academy of Preprofessional Programs in Communication Sciences and Disorders (NAPP). Because ASHA and most Institutional Review Boards (IRBs) of NY State universities did not permit access to SLP students' e-mail addresses, two different techniques were used to access students. Method 1: Students at various institutions who were aware of this project forwarded the survey through their NY State student speech pathology membership to chapter presidents, who then forwarded the survey to students in their programs. Method 2: The first author contacted each university to request information on IRB procedures for performing a survey. Using this method, IRB applications were processed through 20 universities' IRBs, and the surveys were reportedly forwarded to students in 18 of these universities. If the students agreed to respond, they clicked on the link to complete the survey. They were informed that they would be able to stop completing the survey at any time. They were asked to complete the survey no more than once. The survey was distributed in the fall semester of 2007 and responses received from 2007 to 2009 were analyzed.

Results

Data analysis

Data files collected using SurveyMonkey© software were downloaded and exported to SPSS for statistical analysis. Relevant variables were defined and converted to numeric codes. Descriptive statistics were computed for most items on the survey. Because of the small number of directors, inferential statistics were performed on only the student responses. For the director survey, reliability by means of fact-checking regarding setting and program level was performed for the 67% of clinic directors who revealed their universities. Director surveys were 100% consistent for those questions. For the student survey, 326 surveys were examined by a graduate research assistant for consistency among the responses to what their native language was and their response to age of acquisition of the language. Reliability was 89%.

Number of responses and percent completing surveys

From the 33 universities to which the director survey links were e-mailed, 28 responses were received. Most respondents (89%) completed the entire survey. The estimated overall response rate for directors was 28% (28 responses from surveys sent to 33 institutions X 3 directors/supervisors). The name of the director's institution (an optional question) was provided by 57% of the respondents, indicating that at least 14 different institutions were represented. Because of the survey's anonymity, the distribution of the remaining responses across university programs could not be known. A total of 530 responses to the student survey were received. Approximately 72% of respondents ($n = 384$) completed the entire survey. Percentages reported, unless otherwise specified, are the frequency of a particular response to each question divided by the total number of responses provided for that question.

Students' language backgrounds, speech/language skills, and plans

More than three quarters of the student respondents reported being native speakers of English (81%), only 3% ($n = 10$) of whom came from English-speaking countries other than the U.S. Spanish was the second most-frequent native language (10%), followed by Russian (5%). The remaining languages (8%) were each the mother tongue of 1% or fewer of respondents. Non-native speakers of English comprised 18% ($n = 82$) of students. (A rounding error accounted for native- and non-native speakers totaling 99%.) They began learning English at a median age of 8.3 years (mean = 9.5, range = 0-25, SD = 6.1). The median number of years they reported that they had learned/studied English was 6.3 (mean = 6.8, range = 0-12.8, SD = 4.4). On a scale from 1-9 with 1 being most native-sounding and 9 being most foreign-sounding, they rated their own English proficiency as a median of 2 (mean = 3) and pronunciation as a median of 2 (mean = 3).

Regarding languages in which students expected to practice, approximately 13% ($n = 52$) of the 415 students planned to practice in Spanish, 26 of whom were non-native speakers of Spanish. These non-native speakers' median age of beginning to learn Spanish was 5 years old (mean = 7.6, range = 0-20, SD = 6.4). The median number of years of learning Spanish for non-native speakers of Spanish was 7.5 years (mean = 7.1). Their self-ratings on general proficiency and pronunciation (on a scale from 1-9 with 1 being most native-sounding and 9 being most foreign-sounding) were 4 (mean = 3.5) and 3 (mean = 3.5), respectively. Pairwise t-tests for those planning to practice in their non-native English compared to those planning to practice in their non-native Spanish indicated that the groups did not differ significantly in their age of L2 acquisition, $t(106) = 1.34, p = 0.18$, number of years the L2 was studied, $t(99) = -.23, p = .82$, general proficiency, $t(105) = -1.71, p = .09$, or pronunciation, $t(107) = -0.90, p = 0.37$.

An additional 60 respondents (15%) reported that they would "maybe" provide services in Spanish, most of whom (82%, $n = 49$) were non-native speakers of Spanish. The individuals who considered practicing in Spanish (total non-native speakers who answered either "yes" or "maybe" to whether they planned to practice in Spanish) constituted approximately 18% ($n = 75$) of the 415 total respondents. Most of these non-native Spanish speakers, 65% (i.e., 49 out of the 75, or 12% of the total respondents) responded "maybe" rather than "yes." Because of the need for bilingual clinicians, individuals who responded "maybe" to whether they would practice in Spanish are likely to provide services in Spanish. Thus, an analysis was also performed on this group. For those who reported that they might practice in Spanish, the median age of learning Spanish was 14.0 years (mean = 13.8, range = 0-25, SD = 5.1). The median number of years of learning Spanish was 5.2 years (mean = 5.4, range = 0-133, SD = 2.9). (Six of the non-native speakers who said they might practice in Spanish reported they had not yet started learning Spanish.) The median self-ratings for all of the non-native speakers of Spanish who might practice in Spanish was 7 for proficiency (mean = 6.1) and 7 for pronunciation (mean = 6.1), that is, relatively foreign-sounding. Pairwise comparisons indicated that although the number of years learning Spanish was not significantly different between those who planned to and those who reported they might practice in Spanish, $t(69) = -1.48, p = .143$, the "maybe" group began learning Spanish at a later age, $t(72) = 4.27, p < .001$. This group also rated their Spanish proficiency lower, $t(73) = 4.10, p < .001$, as well as their Spanish pronunciation, $t(71) = 3.92, p < .001$, per 1-tailed comparison.

For the 115 students who reported they would practice in a language other than Spanish or English, 33% were non-native speakers. These languages included Hebrew, French, American Sign Language, Haitian Creole, Mandarin, Yiddish, Italian, Russian, Cantonese, Greek, Polish,

Portuguese, Urdu, and Arabic. For those non-native speakers, the median age of learning this language was 9.43 years old (range 0-25, SD = 8.00), the median number of years of learning this language was 5 years, and their self-rating was 5 for proficiency and pronunciation. No significant differences were found between those non-native speakers planning to practice in English versus in languages besides Spanish and English in terms of their age of L2 acquisition, $t(118) = -1.22, p = .222$, or number of years the L2 was studied, $t(113) = .61, p = .542$. Their self-perceived proficiency was lower than the non-native speakers of English planning to practice in English, $t(117) = -3.99, p < .001$, as was their pronunciation, $t(115) = -3.31, p < .01$.

Directors' reports on policies, practices, and consideration of intelligibility

Directors were asked whether their institution had an official policy regarding students with accents. Approximately one third ($n = 9$) of the 28 directors responded that there was a policy, whereas 18 (64%) said their institution had no policy. When asked to specify if they had answered "yes," 5 respondents (18%) made reference to ASHA's policy of being able to model the target. One director stated that "The policy pertains to all students, not just those with accents. The policy indicates that, in accordance with ASHA standards, a student must demonstrate the clinical competency of being able to comprehend, use, and model standard American English in both verbal and written language." Others responded that 1) English language learners reportedly take a Speaking Proficiency English Assessment Kit (SPEAK) test (a 20-minute test of oral proficiency, including pronunciation, designed by the Educational Testing Service) and if a need for accent modification is indicated, the student is advised; 2) all students in the program need to pass a screening and, if they fail it, "communication disorders are addressed with graduate students on an individual basis," 3) students undergo a diagnostic evaluation after which treatment might be recommended, and 4) that there was no official policy but that this was something the department wants to formally address. When asked if the program measured students' intelligibility, 19% of directors replied that theirs did, whereas 81% said theirs did not.

Policies and practices applied to different languages

When asked what was usually done if an SLP student was identified as having an accent in English, the majority ($n = 23, 82\%$) of directors indicated that action was taken, although some reported that it depended on how strong the accent was. Typically, this entailed accent modification from staff ($n = 11, 39\%$) and/or from peers ($n = 11, 39\%$) and/or recommendations for accent modification/ English training outside of the program ($n = 9, 32\%$). Two directors reported that this question had not yet been formally addressed. Of the 28 directors, 4 (14%) reported that no action was taken. Of those reporting that action was taken, 4 (17%) reported that this depended on whether the accent interfered with communication.

Based on the student survey, Table 1 reports language background characteristics of non-native speakers of English, Spanish, and other languages and the percentage asked to receive accent modification. Non-native speakers of English were asked to receive accent modification more frequently than were non-native speakers of Spanish or other languages. Of the students who were non-native speakers of English, 11% (9/82) were required to receive accent modification, and 3 of them (33%) did. The native languages of the respondents who were asked to undergo accent modification were Russian/Ukrainian ($n = 3$), Spanish ($n = 3$), Greek ($n = 2$), and Korean ($n = 1$).

Table 1

Language Characteristics and Referral for Accent Modification of Non-Native Speakers of English, Spanish, and Other Languages Who Report They Plan to or May Provide Speech-Language Pathology Services in Their Non-Native Language

	Plan to provide services in non-native English	Plan to provide services in non-native Spanish	May provide services in non-native Spanish	Plan to provide services in non-native other language
Age of acquisition (years)	Median: 8.3 Mean: 9.5	Median: 5.0 Mean: 7.6	Median: 14.0 Mean: 13.8	Median: 9.4 Mean: 11.5
Number of years learned	Median: 6.3 Mean: 6.8	Median: 7.5 Mean: 7.1	Median: 5.2 Mean: 5.4	Median: 5.0 Mean: 6.2
Self rating: pronunciation*	Median: 2 Mean: 3	Median: 3 Mean: 3	Median: 7 Mean: 6	Median: 5 Mean: 5
Referred for accent modification	n=9 (of 82) 11%	n=0 (of 12) 0%	n=2 (of 49) 4%	n=1 (of 34) 3%

*1 = very native sounding; 9 = very foreign sounding

When students had accents in Spanish, the responses were diverse. Of the 15 directors who indicated that there were placements in Spanish, 5 (33%) reported that action was taken if a student had an accent in Spanish, 6 (40%) indicated that no action was taken, 3 (20%) reported they had not experienced this, and 1 clinic director (7%) of an urban program stated that he/she did not know. The 23 directors who reported that action was taken indicated this involved accent modification from staff (n = 3, 13%) and/or from peers (n = 3, 13%) and/or recommendation for accent modification/Spanish training outside of the program (n = 2, 9%). None of the (12) non-native Spanish speakers planning to provide therapy in Spanish was referred for accent modification. Two students who reported they “might” provide therapy in Spanish (4%) were referred for accent modification. Both were native speakers of American English.

Regarding languages other than Spanish and English, of the 9 directors who reported that they had placement sites in which languages other than Spanish and English were serviced, 4 (44%) reported no action taken if a student had an accent, whereas other directors (n = 5, 56%) reported that accent modification from staff and peers or outside support were required. Action taken involved accent modification from staff (n = 3, 33%) and/or from peers (n = 2, 22%)

and/or recommendations for training outside of the program ($n = 2$, 22%). Of the 34 students who were non-native speakers planning to provide services in a language other than English or Spanish, 1 student (i.e., 3%), a native speaker of English, was required to receive accent modification (in Russian), which he or she did not do. A chi-square test, with a corrected value of 5.049, revealed a two-tailed p -value of 0.025, consistent with a Fisher exact test with a one-tailed p value of 0.013, indicating that non-native English speakers were asked to receive accent modification significantly more frequently than were non-native speakers of Spanish or other languages.

Comments on the survey

The questionnaires ended with an option to comment on the survey topic. One director in a small town wrote: “This is a very interesting topic. At [this institution], we do not have (and haven't had) any speech pathology students who have accents, so we have not had to respond to some of the issues the survey raises.” Another from an urban institution wrote “We have engaged in considerable discussion about this issue, as well as the issue of students who present with clinical problems...At present we are trying to address this issue in a manner consistent with ASHA policy.” A student at an urban institution who expressed several sentiments also demonstrated by others wrote “This is a sensitive subject, as a bilingual/bicultural speaker, I am at first offended. My first reaction is: Now they don't want us to be SLPs. However, I am also disturbed by the fact that I have seen SLPs with only a bare minimum of Spanish proficiency get hired to treat bilingual Spanish children, and so can see the need for this research. I think that two factors are to be kept in mind: 1) the level of accent, is a person just able to speak conversational Spanish (in my opinion, that is not the level of proficiency needed to treat clients), 2) how do we determine who does NOT have an accent? Be it national or regional...It is very important not to target any one group. That is difficult when there is a large minority.”

Discussion

In summary, e-mail surveys were distributed in New York State to gather information from SLP students and clinic directors regarding students' language backgrounds and skills, and their experience with policies and practices involving SLP students with foreign accents. Student respondents were predominantly monolingual (Research Question 1). For the bilinguals, Spanish was the most common language spoken (as a first or second language) and the most common non-English language in which students planned to practice. Few actual policies exist (Question 2a) that delineate criteria for determining how native-like SLP students' speech needs to be in order for them to work effectively with clients. Intelligibility (Question 2b) was considered only by a minority of clinic directors. Criteria were typically not made explicit for determining when accent modification was required. Still, a subset of students with accents were asked or required to undergo accent modification. In response to Question 3 (differences as a function of treatment languages), students with accents in English were asked more often to undergo accent modification than were students with accents in Spanish or other languages despite no later age of acquisition, no fewer number of years learned, and no lower self-perceived skills in their L2.

Different policies and practices for different languages

The major theme emerging from the survey's findings is the lack of consistent policies and practices involving SLP students with accents, with native speakers of English held to a lower standard when working in another language than are native speakers of other languages working in English. Several factors may contribute to the expectation of native-like pronunciation being more stringent for English than for other languages. First, the status of

English in the U.S. socio-economically and as the language of education (Anderson, 2004) is likely to increase the value of the language to clients, their families, and professionals, and thus, the importance placed on speaking English in a native-like manner. Secondly, because of the paucity of SLPs in the U.S. who speak languages other than English, families and clinic directors are grateful to find any interventionist in their language, and may be more accepting of an accent (Langdon, 1999) in that language than in English, for which the choice of SLPs is greater. And finally, clinic directors, often SLPs themselves, are likely to be native speakers of English and may thus be more likely to detect an accent in English than in other languages (Flege, 1984).

In the present study, only 8% of SLP students were native Spanish speakers planning to practice in Spanish and 6% were non-native speakers of Spanish planning to practice in Spanish. Given the high demand for Spanish-speaking SLPs, it is likely that most of the Spanish-speaking student clinicians (native and non-native) will service Spanish-speaking clients. In addition, those who were only considering providing services in Spanish are likely to provide services in Spanish. Compared to those planning to practice in Spanish, those just considering practicing in Spanish had learned Spanish at an older age (with some not having begun studying Spanish), and, as expected, reported lower self-ratings of pronunciation and proficiency. Consequently, native Spanish-speaking clients are likely to encounter heavily accented (non-proficient) speakers of Spanish as their SLPs—more often than will native English-speaking clients encounter SLPs with accents in English. However, the few native Spanish-speaking SLPs in the workforce will be asked to modify their accents in English more often than will the larger group of native English-speaking SLPs be asked to modify their accents in Spanish. The present study revealed that few methods of measuring accentedness or intelligibility were used to determine whether a student was accented enough to require action to be taken. In the absence of more objective measures, accentedness ratings and even comprehension may be affected by preconceptions of a speaker's accent (Rubin & Smith, 1990).

Suggestions for future policy and practices

For SLPs who do not have native Spanish proficiency/phonology, programs in communication sciences can further facilitate the development of their Spanish skills in a number of ways. Some programs have conversational Spanish groups that meet regularly, others provide students with information available on Spanish classes, others allow SLP students to take Spanish classes as electives, and yet others organize overseas travel experiences in Latin American countries (Crowley, 2007). Similar suggestions apply to second-language learners of languages other than English and Spanish who plan to practice in their L2. For them, as well, it is important to ask whether resources (including faculty) are available for providing such training. The training does not need to stop at the university level. Opportunities for increasing non-native language skills might include incentives such as continuing education credits for improving SLPs' pronunciation, proficiency, and cultural competence in their non-native language.

Native speakers of languages other than English are likely to be proficient in English if they have been accepted into universities, but many may be accented. Programs need, then, to develop policies that provide support to native speakers of languages other than English who may, in fact, need intelligibility training (or accent modification for modeling) in English. Programs can turn to other disciplines, such as Teaching English to Speakers of Other Languages, for assistance in developing approaches to increasing intelligibility. Beyond working to enhance a student's intelligibility, university programs can identify strategies to reduce the problems if a student is unable to produce a needed model. These strategies can include the use

of software that produces speech sounds and involvement of the client's family members in treatment sessions so that they gain the skills needed to help the client practice the sounds at home. Over time, university programs can develop resources that students with any accent can use. In this way, more diverse SLP students can acquire the skills and confidence needed for their profession.

If students feel unfairly singled out, they may receive support from an ad hoc group comprised of selected members of ASHA's Multicultural Issues Board. This ad hoc group hears arguments from both sides and makes nonbinding recommendations. To go beyond simply offering this ad hoc review, the program accrediting body—the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)—could require evidence that these issues have been considered and addressed as part of a program's reaccreditation. Rather than discourage these students from the profession, appropriate policies and procedures are likely to lead to greater diversity in the profession, thereby increasing overall understanding of how to work with an increasingly diverse population. In addition, ASHA has developed a document for students and faculty with guidance in assisting students with foreign accents during their clinical experiences (ASHA, 2011).

Research is needed on the effects of a foreign accent on efficacy of services. A first step is to increase our understanding of the impact of accented speech on perception by individuals with the wide gamut of disorders serviced by SLPs. A second step is to determine strategies that can be implemented to ensure that services provided by SLPs with accented speech are as effective as those provided by SLPs with language backgrounds similar to those of their clients. Relevant findings include that 1) the relationships among accent, intelligibility, and comprehensibility are quasi-independent (Derwing & Munro, 1997); 2) the hyperarticulating mode of "clear speech" may increase intelligibility for non-native speakers with intact communication, although this "clear speech advantage" is stronger for native speakers than for non-native speakers (Levy, Garcia, et al., 2010; Rogers et al., 2010; Smiljanic & Bradlow, 2008); and 3) if accent causes perceptual difficulty at first, this may be decreased with familiarity with the accent (Bradlow & Bent, 2008). Work using interpreters (Langdon & Cheng, 2002) and telepractice (e.g., Goral, Levy, & Kastl, 2010) can facilitate communication and treatment efficacy when clinician and client do not share a native language.

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