THE EFFECTS OF FOREIGN ACCENT ON PERCEPTIONS OF CREDIBILITY

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Stillwater, Oklahoma

1995

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirement of
the Degree of
MASTER OF ARTS
December, 1996

OKLAHOMA STATE UNIVERSITY

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PERCEPTIONS OF CREDIBILITY

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ACKNOWLEDGEMENTS

I wish to express my deepest appreciation to all of the individuals who participated in this study, especially the international participants who lent their voices, without whom this research would not have been possible.

Words are inadequate to express the depth of appreciation and warmth that is extended to my thesis advisor, Dr. David Schrader, who diligently worked with me, giving his time, knowledge, and professional expertise which greatly enhanced the quality of this research as well as making it a truly enjoyable learning experience. Even when things didn't go as smoothly as we would have liked, Dr. Schrader never let me give up hope that things would ultimately work out for the best.

In addition, I wish to thank my thesis committee members, Dr. Mary Mandeville and Dr. Michael Stano, for their wisdom and friendship, as well as for giving me some unique perspectives at times when I was blinded by my own. Each of these individuals provided exceptional support and guidance during my time as a graduate student and during the research process.

I would like to thank the Department of Speech Communication for their support during my undergraduate and graduate years of study, and for helping me achieve my potential as a student and a person.

Finally, I would like to extend my warmest affection and regard to my husband, Jeff, for continually supporting me through these difficult times, even when I was running off to do research at all hours. He sacrificed for me, encouraged me, consistently provided love and support, and helped me many, many times along the way.

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I. INTRODUCTION

Overview of the Problem

Regional accents have important implications in business communication (LaTour, Henthorne, & Williams, 1989). Today's workforce is becoming more culturally diverse, and today's technology allows business people to deal with others in geographic locations throughout the world. The United States has become the home of more people of diverse cultures than any other country (Varner & Beamer, 1995). Between the mid-1960's and the mid-1970's, North America experienced an "ethnicity boom" and, consequently, a widespread raising of consciousness about ethnicity and minority issues. In fact, 1970 census data showed that 17% of the American population (over 33 million) had a native language other than English; the most common languages are Spanish, German, Italian, French, Polish, and Yiddish (Crystal, 1987). No doubt, the population of non-native English speakers in the United States has increased tremendously in the last 35 years! Thus, knowledge of people's reactions to the varied accents which

they may encounter on a day-to-day basis might facilitate tolerance and diplomacy in business relations.

According to Powesland and Giles (1975), an accent is a manner of pronouncing words which differs from the standard speech of the culture, with the grammar and syntax consistent with the standard. For the purposes of this study, it is important to distinguish "dialect" from "accent," as the two are often, though mistakenly, used interchangeably. Whereas *accent* refers only to distinctive pronunciation, *dialect* refers to grammar and vocabulary (Crystal, 1987). For example, if we hear someone say, "he done it," and another person say, "he did it," the differences would involve dialect, because the speakers are using different grammatical styles. However, the old adage of saying "tomato" with "ay," or "tomato" with "ah," refers to the accent, because the difference involves only pronunciation.

For years, people have tried to discover all of the possible variables relevant to judgments of credibility. The effects of foreign-accented speech, "non-pathological speech that differs in some noticeable respects from native speaker pronunciation norms" (Munro & Derwing, 1995, p. 289), have recently been the focus of studies on credibility. Chaika (1982) states that a person's dialect (*pronunciation* as well as *grammar*) is directly related to his or her identity. Moreover, how a person feels about him or herself,

how he is treated, and how he treats other people, is dependent on his or her dialect. Chaika further states that, "Using incorrect--that is, nonstandard--forms [of dialect] can have consequences that strike right at the heart of middle class privilege" (p.139). This statement alludes to the belief that if one speaks a form and/or uses a pronunciation of the language that is seen as deviant from the "norm," one will find it difficult to move beyond the perceived lower-class into the middle- and upper-classes. Likewise, Ryan, Hewstone, and Giles (1984) found that standard accented speakers were evaluated more favorably on traits related to competence, intelligence, and social status than non-standard speakers.

Even before modern linguists began studying the effects of deviant accent and dialect on perceptions of personality traits, social class, and other characteristics, English novelists observed the relationship between language and social class in Britain (Crystal, 1987), as illustrated in an excerpt from George Gissing's *New Grub Street* (1928):

> Mrs. Yule's speech was seldom ungrammatical, and her intonation was not flagrantly vulgar, but the accent of the London poor, which brands as with hereditary baseness, still clung to her words, rendering futile such propriety of phrase as she owed to years of association with educated people. (p. 75)

Richards (1975) states that, "deviancy from grammatical or phonological norms of a speech community elicits evaluational reactions

that may classify a person unfavorably" (p. 49). Thus, a speaker's errors in pronunciation, and the speaker's fluency with the language, may have social and communicative implications beyond a simple linguistic, grammatical, point of view. In fact, a survey conducted by Berry, Kalin, and Taylor (1987), which asked respondents about their willingness to interact in business and personal relationships with immigrants, found a bias toward the members of the majority groups. Munro and Derwing (1995) state that bias and unwillingness to interact on the part of native speakers is no doubt due to prejudice against particular groups, but is also partly due to the communicative "costs" involved:

> In some instances, utterances may be partially or completely misunderstood because listeners are unable to recognize phonetic segments, words, or larger units that are pronounced with an accent. In such cases, the amount of information lost is presumably related to the type, severity, and frequency of divergences from the norms. (p.290)

People create stereotypes based on first impressions, and next to physical appearance, vocal cues are one of the first characteristics by which people characterize others (Zajonc, 1980). Almost any suggestion of group belonging can serve as a basis for stereotyping. According to Foon (1986), speech style (including accent) "appears to have a powerful influence on the judgments of perceivers over a wide range of qualities attributed to the

person perceived" (in Tsalikis, DeShields, & LaTour, 1991, p. 31). Even when speakers are perceived to have very small amounts of accentedness in their speech, they tend to be rated less favorably in traits associated with perceived status and attractiveness. However, the more accented the speech, the more negatively the speaker is rated on status and attractiveness traits (Ryan, Carranza, & Moffie, 1977).

Language is a factor which serves to identify a speaker as a member of some social, ethnic, or cultural group. When the listener "identifies" the speaker, the listener forms attitudes and stereotypes about the speaker and evaluates and judges the speaker in terms of credibility and other characteristics (Orth, 1982). Even immigrants who have learned to speak English fluently are still disadvantaged due to the negative reactions to their accent by native English speakers (Gallois & Callan, 1981). The tendency to make such strong connections between pronunciation and ability has been labeled by Jakobovits (1970) as "folk bilingualism":

> [A] foreigner who is capable of uttering a few mechanical sentences with good pronunciation and accurate syntax impresses native speakers as being "bilingual," whereas someone who speaks their language with a strong foreign accent and lacks fluency, does not, despite the fact that the latter's knowledge is considerably greater than the former's. Accent, pronunciation, and fluency are given a disproportionate degree of importance by a nonprofessional judge. (p. 85)

No matter where we go in the world, *all* accents, dialects, and languages are subjected to evaluations from others. It has been found that speakers who use a standard dialect, speak quickly and fluently, and use minimal hesitations, are perceived as more competent, dominant, and dynamic. However, surprisingly, the use of regional, ethnic, or lower-class varieties has been associated with greater integrity and attractiveness (Crystal, 1987). Although there is a general tendency to view people dissimilar to ourselves negatively, it is important for us to learn to withhold judgments based on superficial criteria. If we automatically reject others because of their differences, we will be rejecting their variety of knowledge and experience which can enrich our lives, both personally and professionally (Beamer & Varner, 1995).

Purpose of the Study

The present research is specifically designed to determine the differences in how native-English speakers perceive the credibility of ten (10) major foreign language accents:

① Brythonic (including Breton, Cornish, and Welsh);

② Italic (including Spanish and Portuguese);

③ Germanic (including German, Swedish, and Danish);

④ Semitic (including Arabic and Hebrew);

⑤ Slavic (including Czech, Russian, and Polish);

⑥ Indo-Iranian (including Gujarati, Hindi, and Tamil)

⑦ African (including Swahili, Ngala, and Ganda);

⑧ Chinese (including Cantonese, Hunan, and Mandarin);

⑨ Gaelic (including Scottish, Irish, and Manx); and

⑩ Japanese.

The above listed ten accents were chosen because of their uniqueness of sound in comparison to one another, and because they represent geographically distinct parts of the world.

To establish a control group, as well as further support the theory of Perceived Similarity, which is discussed later, a male and a female American English speaker was also included as subjects in the recordings.

Definition of Terms

Credibility, also called "ethos," "charisma," and "prestige," has often been studied as a unidimensional and objective characteristic of the source, and is ranked as either "high" or "low." However, rather than being an unchanging attribute of the source, credibility may differ from receiver to receiver, and from situation to situation (Berlo, Lemert, & Mertz, 1969). Understandably, a speaker who is perceived as credible to one person, may

not be perceived as credible to another person. When foreign accents are factored in, credibility undoubtedly becomes receiver-oriented. A speaker may be the foremost expert in nuclear physics, but if the receiver is distracted from the message by an accent, the speaker's credibility will likely be diminished. Credibility has been defined as "attributions concerning a communicator which are the basis for the acceptance or rejection of his assertions" (Delia, 1976, p. 189).

It is widely accepted that credibility has two major dimensions: expertise and trustworthiness (Hovland, & Weiss, 1951). McCroskey (1966) labels these dimensions "authoritativeness" and "character." Authoritativeness is the amount of knowledge and/or experience a source has on a given subject, and character is the degree to which an audience believes the source to be truthful and to have their best interests in mind. McCroskey also makes reference to a third dimension of credibility, "dynamism," but Berlo (1969) stated that, "the relative instability of dynamism suggests that it may not be psychologically independent of the other two factors" (p. 566). However, dynamism has more recently been investigated in studies of attitudes toward non-native speech (e.g., Bodtker, 1992; Giles, Williams, Mackie, & Rosselli, 1995). These studies have consistently found that non-native English speakers are rated as less dynamic than native-English speakers.

II. REVIEW OF LITERATURE

The growing emphasis on diversity in the workplace in the United States, as well as the increase in global communication, has warranted the study of how native-English speakers perceive non-native English speakers. Whereas previous studies have focused on only one or two different accent types (especially Mexican and Spanish) in terms of levels of credibility and personality assessments (Munro & Derwing, 1995; Tsalikis & Ortiz, 1992; Tsalikis, et al., 1991; Fayer & Krasinski, 1987; Berk-Seligson, 1984; Brennan & Brennan, 1981; Goebel & Cole, 1975), the current study is specifically designed to assess the credibility of ten targeted accent varieties (not including American English).

Sociologists and communicologists alike have developed diverse theories to explain why foreign-accented English has such a significant affect on the listener. Perceived Similarity Theory is one such theory.

Perceived Similarity

Studies of interpersonal attraction have shown that perceptions of shared personal interests and personal similarity are major determinants of liking and attraction (Tims & Miller, 1986). Rogers and Bhowmik (1970)

define perceived similarity as the degree to which we *believe* another person's characteristics are similar to ours. Although this study focuses on expertise and trustworthiness as the dimensions of source credibility, perceived source similarity has also been studied as a dimension of credibility, together with source expertise and source physical attractiveness (Tsalikis, et al., 1991). Triandis (1977) found that people are attracted to others whom they see as similar, and we view people who are similar to us as more credible. Thus, we are not likely to view people from different cultures as similar. Even if one from another culture is similar to us in many other aspects, a divergent accent is enough to cause us to think that we are dealing with "one of them" rather than "one of us."

Tims and Miller (1986) attribute the general public's feelings toward certain foreign countries to the media and entertainment industry: "As a result of media coverage patterns over time, the public comes to hold general beliefs about the extent to which a foreign county is a friend or enemy, partner or competitor, and *shares social, cultural, and ethnic commonalities*" [emphasis added] (p. 472). Tims and Miller concluded that perceived personal, cultural, and/or ethnic similarity are basic beliefs which shape impressions of others, and since people often do not have personal experience to help shape their impressions about those from foreign countries, they rely on the mass media.

Perceived similarity has notable implications in sales situations. For example, Evans (1963) concluded that the greater the similarity (or attraction) between a buyer and a salesperson, the more likely the transaction will be successful. Berscheid (1966) also concluded that people are more likely to be persuaded by others who are most similar to them. However, Cronbach (1955) emphasized that the *actual* similarity between the interactants is not as important as how much similarity the interactants *believe* there is between them.

Studies by Sunnafrank (1983) and Sunnafrank and Miller (1981) indicate that the relationship between similarity and attraction is largely eliminated if the interactants have the opportunity for normal "get acquainted" conversations to determine attitude similarity. Salespersons do not normally have an opportunity for a "get acquainted" conversation with potential customers, thus, perceived similarity between the customer and the salesperson remains a crucial consideration. Sunnafrank's (1983) conclusions are that people value stability, predictability, and control in interactions with dissimilar others; since get-acquainted sequences satisfy these needs, uncertainty, and the perception of dissimilarity between dissimilar interactants, is reduced to a comfortable level so that attraction is increased. However, one could conclude that the normal communicative

processes between people produce a greater influence on attraction than perceived similarity between interactants.

McCroskey, Richmond, and Daly (1975) developed a questionnaire with four dimensions of similarity (attitude similarity, value similarity, background similarity, and appearance similarity) to measure perceived similarity between communicators. Although their research found that attitude similarity was the most important factor in perceived similarity, if people choose not to interact with culturally dissimilar others, they may be forced to rely on preconceived stereotypes, and as a result may make assumptions about attitude similarity. Thus, prejudice and stereotypical attitudes may actually restrain people from interacting, and, consequently, those so restrained will not discover attitude similarities which could increase attraction.

Hendrick, Bixenstine, and Hawkins (1971) developed an instrument to measure prejudice, then studied how people of high and low prejudice responded to others of different races. Not surprisingly, they found that respondents with high prejudice assumed greater dissimilarity between themselves and someone of a different race than did those respondents with low prejudice. However, those same respondents did not respond differentially on the likability scale toward the stimulus persons of a

different race. Thus, they concluded that perceived similarity and attraction were independent.

Studies by Anisfeld, Bogo, and Lambert (1962), and by Ryan and Carranza (1975), have demonstrated that accented and unaccented speech samples by a single speaker received different ratings by the listeners, who were unaware that they were hearing the same speaker both times. Although receivers initially categorize individuals on the basis of easily observable characteristics such as sex and race (Taylor, Fiske, Etcoff, & Ruderman, 1978), studies utilizing only speech samples found that accent is the primary characteristic by which listeners categorize the speaker (Rubin & Smith, 1990; Gallois & Callan, 1981; Powesland & Giles, 1975). Thus, perceived similarity is factored in; listeners may believe that the accented speaker is more dissimilar, although the accented speaker and the unaccented speaker are the same person. These studies illustrate that listeners judge speakers more on accent than on content or expertise.

Perceptions of Accented Speech

Fayer and Krasinski (1987) compared the reactions of native English speakers and native Spanish speakers who listened to tapes of Puerto Ricans speaking English. The listeners completed a questionnaire that examined variables such as intelligibility, grammar, and pronunciation. They found

that most listeners made judgments before listening to the complete recording of each speaker. One group made judgments about the speaker within 15 seconds. Subsequent speakers were judged after only 5 seconds. Thus, judgments of intelligibility, credibility, and other factors, are made even more quickly that most people realize. Fayer and Krasinski's study proves the importance of first impressions.

Contrary to Politzer (1978), who discovered that listeners of non-native English attend most to vocabulary errors, then grammar errors, and that non-native pronunciation is the least important of the three factors considered, Fayer and Krasinski (1987) found that pronunciation and hesitation were the most important to both native and non-native listeners.

Numerous studies utilize the "matched guise" technique, in which one speaker, who is fluent in two or more accent types, reads a passage which is evaluated by listeners. Lambert (1960) was the first to use this type of experiment which intended to show how English and French-speaking Canadians viewed each other. English-speaking students in Montreal listened to recorded passages read in both French and English by the same person, and then completed a survey on their perceptions of the speaker's personality traits. Results indicated that the evaluators of the English guise recording thought the speaker was more attractive, more intelligent, kinder, and more ambitious than the French guise speaker. Even when French-

speaking Canadians evaluated the speakers, the English guise recording was rated more favorably than the French guise recording. Presumably, because the speakers were speaking English, the listeners (both French and American) preferred a standard pronunciation of English rather than an accented pronunciation. This study illustrated that accented-English of any type is seen as more unfavorable than the standard pronunciation of English. Even when the accent is similar to one's own, people form certain stereotypes about what standard English "should" sound like.

Giles (1970) proposed that the evaluation of accents involves the "personality" content from vocal cues, as well as three other dimensions: the pleasantness-unpleasantness associated with listening to a particular accent; a rating of the "comfort" that would be experienced by the listener in verbal interaction with an accented speaker, which incorporates the concept of intelligibility; and the amount of prestige value inherent in an accent. Giles found that although a generalized pattern of ranking across the three dimensions emerged, factors such as age, sex, social class, and regional membership were important determinants in the evaluation of the speakers. He concluded that an evaluation of the personality content of an accent involves an assessment of characteristics of the *speaker*, not the speech, while evaluations across the other three dimensions involve assessment of the *speech*, not the speaker.

A study by Tsalikis, DeShields, and LaTour (1991) found that salesmen who spoke English with a foreign accent were perceived by Americans as less intelligent and less knowledgeable than salesmen with standard American accents. A similar study by Tsalikis and Ortiz (1992) concluded that a salesperson without a foreign accent has a definite advantage over a salesperson with a foreign accent in terms of credibility and persuasiveness. The same study also found that the amount of exposure the raters had to different accent types in their daily lives had no effect on their ratings of the accent in terms of credibility and persuasiveness.

Because speakers of foreign-accented English have obvious difficulty in some areas of social and professional interaction, research has also focused on the acquisition of English as a second language. A study conducted by Patkowski (1989) on the acquisition of English as a second language found that accent was more likely to be present if the speaker learned English after puberty, or after about 13-15 years old, whereas those learning English before puberty were less likely to have a pronunciation with the accent of their native language. However, counter studies (Patkowski, 1989; Flege, 1988, Tahta, Wood, & Lowenthal, 1981) produce evidence that indicates that early learners of English as a second language do *not* have more tendency toward accent-free pronunciation. So, rather than concentrating on eliminating accents (which can be damaging in terms

of maintaining cultural pride and self-esteem), learners of a language should focus on developing good speech habits, such as working on voice volume, hesitations, and enunciation. Another beneficial approach utilized with sales representatives with accents has been to teach them how to effectively respond to negative initial impressions. For example, role playing and other interactive methods have been used to develop skills to cope with negative first impressions expected when encountering salespeople with accents (Churchill, Ford, & Walker, 1985).

Role of Accent and Dialect in Education

To analyze the controversy surrounding the teaching of a standard dialect in the K-12 classroom, Weems (1993) had 112 college students respond to audio tapes containing samples of standard and non-standard dialect. Responses were categorized as positive, negative, or neutral. Although the study focused mainly on dialectical differences, it refers to dialect as, "the style used by a speaker when combining *pronunciation*, syntax, and *intonation* during speech utterances" (p. 76, emphasis added) and, as previously discussed, pronunciation and intonation are key elements in accent differences. The results indicated that, in general, people categorize nonstandard dialect speakers as being inferior. Schools have

established norms which regard students speaking a non-standard dialect as inferior, and often ignore the student or recommend the student be taken out of the regular classroom and seen by a teacher of English as a second language (ASHA position paper, 1983, in Weems, 1993). Thus, formal instruction on the standard dialect of a language, especially for children of immigrants, would help children make effective communicative choices, which in turn would help them avoid being stereotyped negatively, as well as teach them to avoid negatively stereotyping others.

A prevalent problem relating to the perception of foreign accent deals with university students' perceptions of non-native English-speaking teaching assistants (NNSTA's). Since many introductory courses are taught by teaching assistants, it was deemed important to find out why students dislike having NNSTA's as instructors. Rubin and Riney (1990) found that 40% of undergraduates avoid NNSTA instructed classes due to stereotypic attitudes toward the instructor's ethnicity and lecture topic, rather than the instructor's accent. That is, the attitudes of the students could be due to a variety of nonlinguistic variables, such as the course content or the ethnicity of the instructor (Orth, 1982). However, when the students perceived high levels of foreign accent, they judged the speakers to be poor teachers. This is probably because foreign accent and pre-existing social stereotypes toward ethnicity go hand-in-hand (Orth, 1982). As discussed below, the

lack of intelligibility of the speaker is a factor in perceived teaching ability, since people often judge teaching ability in terms of how well the instructor can get his or her point across (Fayer & Krasinski, 1987).

Edwards (1982) found that speakers with non-accented English were rated higher in the dimensions of competence (including intelligence, confidence, ambition, and industriousness) and status/prestige (including professionalism). However, speakers of accented English were rated higher on the dimensions of personal integrity (including sincerity, reliability, and generosity) and social attractiveness (including friendliness and warmth).

A similar study conducted by Brennan and Brennan (1981) used a semantic differential scale to rate the perceptions of Mexican-accented English using pairs stressing two dimensions: status (including education, wealth, success, and intelligence) and solidarity (including trustworthiness, friendliness, goodness, and kindness). The study found that as the level of accentedness increased, the raters gave significantly lower social status ratings; however, the level of accentedness did not relate to judgments of solidarity.

Role of Familiarity/Intelligibility in Accent Judgment

Intelligibility, or how much of the message of the non-native English speaker is understood, is often the focus of foreign language research.

Intelligibility is a hearer-based attribute; thus, what is considered intelligible to one listener might not be intelligible to another listener (Fayer & Krasinski, 1987). A number of studies found that if the listener is familiar with the accent, comprehension will increase; however, a negative attitude toward the speaker can cause a decrease in intelligibility, regardless of the listener's familiarity with the particular accent variety (Eisenstein & Verdi, 1985). For example, in Hawaii, Smith and Bisazza (1982) studied the intelligibility of three English varieties (American, Indian, and Japanese), and found that American English was the most intelligible, followed by Japanese English, and Indian English. The authors explained the differences in intelligibility between Japanese English and Indian English on the basis of the listener's greater exposure to Japanese English. Since Hawaii has a large Japanese population, perceived similarity affected the reactions of the respondents.

Role of "Irritation" in Accent Judgment

Another factor related to the affect of the foreign-accented speaker on the listener is *irritation*. Johansson (1975) states that the listener may become tired or irritated listening to the non-native English speaker because the listener concentrates on the speaker's errors in pronunciation, which may take the focus away from the message itself. Piazza (1980) found a

negative correlation between the degree of irritation and the degree of intelligibility.

Race and Accent

Much of the current research on dialect and accent differences has focused on African American dialect, or Vernacular Black English (VBE), particularly what is known as Black Argot (see, e.g., Smitherman, 1992; Williams, 1992; Wolfram, 1990; Winford, 1988). Riney (1990) found that students at an Iowa college labeled their "least preferred" variety of English as Black English. These students were also asked to listen to audio tapes with speakers of different dialects, and the results supported Riney's hypothesis that listeners were making assumptions about the relationships between intelligence, race, and language, especially when judging VBE.

Hoover (1978) surveyed 28 black adults regarding vernacular and standard black English in four domains: school, home, work, and playgrounds. Vernacular Black English was found to be acceptable in the home and community settings, but not in school, the workplace, or other formal situations.

Research Questions

Four research questions were posed as the basis for the present study:

RQ1: To what extent does the type of foreign accent and speaker sex affect judgments of credibility?

RQ2: To what extent does the type of foreign accent and speaker sex affect judgments of (a) intelligibility, (b) similarity, (c) familiarity, and (d) degree of accent?

RQ3: To what extent does the (a) intelligibility, (b) similarity, (c) familiarity, and (d) degree of accent, affect judgments of credibility?

RQ4: What accent characteristic (intelligibility, similarity, familiarity, degree of accent) best predicts judgments of credibility?

Because no research which compared such a variety of foreign-accented English with one another was found, it is not possible to hypothesize that a *particular* accent will be perceived as more credible than another, only that there will definitely be a distinction in the way the subjects rate each accent type in terms of credibility.

III. METHODOLOGY

Subjects

The subjects were students enrolled in introductory Speech Communication classes and Freshman Orientation classes at Oklahoma State University in Stillwater, Oklahoma. Approximately thirty-five (35) intact classes were utilized, and the conditions were randomly assigned. The total sample size was 702 students. Of the 702 total respondents, 48.9% were male and 51.0% were female. One value (.1%) was reported inaccurately. 86.0% of the respondents were between the ages of 17 and 22 years old, 12.9% were between the ages of 23 and 34, and the remaining .1% were over the age of 35. 82.1% of the respondents were Caucasian, 6.6% were Native American, 5.3% were African American, 2.6% were Asian, 1.7% were Hispanic, and 1.9% reported their ethnic background as "other."

Materials and Procedure

A modified version of Cooper's (1975) "verbal guise technique" was used for the study. The original technique utilizes one person who can speak two or more language accents equally well, reading a selected passage for an audience (Lambert, 1975). However, this version sacrifices external validity because the cultural specifics of each language type are lost in the

translation. The modified version utilized audio tapes of speakers representing the ten major accent varieties (Brythonic, Italic, Germanic, Semitic, Slavic, Indo-Iranian, African, Chinese, Gaelic, and Japanese) as well as the American English control group. Two speakers (one male and one female) of each major accent variety were used.

The amount of accentedness of each speaker was determined by an independent evaluator based on the International Teaching Assistant (ITA) test, which is often used to evaluate the English speaking proficiency of non-native English speaking teaching assistants (NNSTA's). The speakers utilized for the study all fell within an acceptable range, which made them comparable. The ITA test has three major dimensions: Presentation Language Skills, Teaching Skills, and Interactive Language Skills. For the purposes of this study, the speakers were only evaluated on the Presentation Language Skills, which consists of four dimensions: pronunciation, grammar, fluency, and comprehensibility. The speakers did not actually take the ITA test, but rather were evaluated by ear, since the evaluator has evaluated international students using the ITA test for many years.

The speakers read an English language sales-type passage of neutral content as if he or she were reading a newspaper out loud (see Appendix A). As mentioned earlier, Politzer (1978) discovered that listeners of non-native English are most critical of vocabulary errors, then grammar errors, and that

non-native pronunciation is the least important of the three factors considered; thus, the scripted reading eliminated the most prevalent judgment factors so that the listener was focused on only pronunciation. The passage took approximately 65 seconds to read. The tapes were made using an Emerson stereo cassette recorder with a detachable microphone. Since the goal was to have listeners rate speakers on vocal qualities alone, the speakers were not videotaped. The speaker recordings were randomly assigned to each group (class). There has been some criticism of this method because it does not control for differences in the speech of the speakers, such as pitch, rate, and volume, however, these qualities were factored out by using them as covariates in the study. Also, this method is frequently used by researchers in linguistics and social psychology (see, e.g., Carranza & Ryan, 1975; Berk-Selingson, 1984). After the subjects listened to the recorded speaker, the subjects were asked to complete a questionnaire by giving their first impressions of the speaker they just heard. Subjects were instructed to not take much time on each question, although they were given as much time as they needed to complete the questionnaire.

Research Instruments

The instrument used for evaluation of the speaker consisted of four parts. The first part consisted of demographic information, such as age and sex of evaluators, to determine whether these factors affect listener perceptions of the foreign-accented English speakers (see Appendix B). Also included in the first portion of the questionnaire were statements used to determine how much exposure the subjects have to foreign accented speakers on a daily basis. The second portion of the survey was composed of scales to measure speaker credibility, and utilized a portion of the McCroskey Credibility Test (McCroskey, 1966), which consists of two dimensions: authoritativeness and character (see Appendix C). The seven-item semantic differential scales for measuring authoritativeness and character have been proven successful, particularly in assessments of public figures. These scales have had very high internal reliability, and their use in many different types of studies within the last 25 years is an indication of their predictive and construct validity (McCroskey & Young, 1981). The third portion of the questionnaire also consisted of seven-item semantic differential scales adapted from a study by Coker and Burgoon (1987) (see Appendix D). These scales were utilized to assess the nonverbal-vocal characteristics determined to be covariates in terms of listeners' perceptions of the speakers. The fourth portion of the survey consisted of questions to

measure the subjects' perceptions intelligibility, similarity, familiarity, and degree of accentedness of the speaker (see Appendix E). A Cronbach-Alpha reliability test was run on each set of scales with reliabilities as follows: authoritativeness (.83), character (.71), general vocal quality (.87), pitch (.44), fluency (.86), clarity (.88), cultural similarity (.89), familiarity (.77), and degree of accentedness (.86).

Speakers

Following is a list of speakers utilized in the study, along with a notation of the speakers' native language: From the Brythonic group, both the male's and the female's native language was British; from the Italic group, both the male's and the female's native language was Spanish; from the Germanic group, both the male's and the female's native language was German; from the Semitic group, both the male's and the female's native language was Arabic; from the Slavic group, the male's native language was Russian, and the female's native language was Czech; from the Indo-Iranian group, the male's native language was Gujarati, and the female's native language was Tamil; from the African group, both the male's and the female's native language was Swahili; from the Chinese group, the male's native language was Cantonese and the female's native language was Indonesian; from the Gaelic group, both the male's and the female's native

language was Scottish; in the Japanese group, both the male's and the female's native language was Japanese.

IV. RESULTS

One major research question was posed on the basis for which the current study was conducted: "To what extent does the type of foreign accent and speaker sex affect judgments of credibility?" Three secondary research questions were added to examine intelligibility, cultural similarity, familiarity, and degree of accentedness as independent as well as dependent variables: **RQ2:** To what extent does the type of foreign accent and speaker sex affect judgments of (a) intelligibility, (b) similarity, (c) familiarity, and (d) degree of accent? **RQ3:** To what extent does (a) intelligibility, (b) similarity, (c) familiarity, and (d) degree of accent affect judgments of credibility? **RQ4:** What accent characteristics (intelligibility, similarity, familiarity, degree of accent) best predict judgments of credibility?

RQ #1 Results

First, a MANOVA indicated a significant accent by speaker sex interaction, Wilks $F(20, 1352) = 2.78$; $p < .001$ (see Tables I and II). This indicates that these is a significant interaction for these two independent variables for at least one of the credibility variables.

Univariate F-tests were performed for the interaction of both dependent variables, and indicated a significant effect for authoritativeness,

$F(10, 677) = 4.23$; $p < .001$, but not for character, $F(10, 677) = 1.18$; $p < .300$.

Follow-up t-tests indicated that the Indian female was perceived as more authoritative that the Indian male, $t(58) = -2.26$, $p = .028$; that the Gaelic male was perceived as more authoritative than the Gaelic female, $t(71) = -4.28$, $p < .001$; and that the Germanic male was perceived as more authoritative than the Germanic female, $t(51) = 3.94$, $p < .001$.

Finally a multivariate analysis of variance revealed a significant main effect for accent, Wilks $F(20) = 1.62$; $p < .001$. A subsequent univariate analysis of variance revealed a significant effect for authoritativeness Wilks $F(10) = 7.12$; $p < .001$, but not for character Wilks $F(10, 677) = 1.62$; $p < .095$. A Scheffe multiple comparison test indicated that the American and British accents were perceived as more authoritative than the Semitic and Cantonese accents. In addition, the Gaelic and German accents were perceived as more authoritative than the Semitic accent.

RQ #2 Results

For RQ2, a multivariate analysis of variance revealed a significant accent by speaker sex interaction, Wilks $F(40, 2553) = 3.52$; $p < .001$ (see Table III). Univariate analyses of variance indicated significant effects for intelligibility, $F(10, 676) = 8.79$; $p < .001$; cultural similarity, $F(10, 676) =$

=2.31; $p < .011$; familiarity, $F(10, 676) = 1.92$; $p < .039$; and degree of accent, $F(10, 676) = 2.75$; $p < .002$. Subsequent t-tests indicated that the Indian female was more intelligible than the Indian male, $t(58) = -5.66$; $p < .001$; that the Gaelic, Germanic, Italic, and Semitic males were more intelligible than the female speakers with those accents, $t(71) = 5.51$; $p < .001$, $t(51) = 2.93$; $p < .005$, and $t(69) = 3.42$; $p < .001$, respectively; the Indian and Japanese females were perceived as more familiar than their male counterparts, $t(581) = -2.69$; $p < .011$, and $t(48) = -2.21$; $p < .032$, respectively; and the Italic, Semitic, and Slavic males were perceived as having a smaller degree of accent than their female counterparts, $t(49) = 2.59$; $p < .013$, $t(48) = 2.39$; $p < .013$, and $t(65) = 2.33$; $p < .028$, respectively.

In addition, a MANOVA revealed a significant main effect for accent, Wilks $F(40, 2553) = 18.24$; $p < .001$. Univariate tests indicated significant effects for intelligibility, $F(10, 676) = 34.70$; $p < .001$; cultural similarity, $F(10, 676) = 33.56$; $p < .001$; familiarity, $F(10, 676) = 9.62$; $p < .001$; and degree of accent, $F(10, 676) = 45.19$; $p < .001$.

Subsequent Scheffe multiple comparison tests indicated that the American dialect was judged as more intelligible than all other accents except the British; that the British accent was rated more intelligible than the Semitic, Japanese, Cantonese, African, and Slavic accent; and that the

Indian, Gaelic, Germanic, and Italic accents were perceived as more intelligible than the Semitic, Cantonese, and African accents.

In terms of cultural similarity, the American accent was judged as more culturally similar than all other foreign accents, while the British accent was rated as more culturally similar than the Indian, Germanic, Italic, Semitic, Japanese, Cantonese, African, and Slavic accents. The Gaelic accent was perceived as more culturally similar than the Semitic accent.

In terms of familiarity, the American accent was judged as more familiar than all other accents except the British, and the Italic accent was perceived as more familiar than the Slavic accent. Finally, the American dialect was perceived as having a smaller degree of accent than all of the foreign accents.

RQ #3 Results

Separate MANOVAs using intelligibility, cultural similarity, familiarity, and degree of accent as independent variables with three levels (low, moderate, high) and credibility as the dependent variable were conducted to address RQ3 (See Table IV). The four MANOVAs revealed significant differences in judgments of credibility for intelligibility, Wilks $F(4, 1396) = 34.99$; $p < .001$; for cultural similarity, Wilks $F(4, 1396) =$

8.23; $p < .001$; for familiarity, Wilks $F(4, 1396) = 7.02$; $p < .001$; and for degree of accent, Wilks $F(4, 1396) = 2.56$; $p < .036$.

Univariate results for intelligibility revealed significant differences for authoritativeness, $F(2, 699) = 68.13$; $p < .001$, and for character, $F(2, 699) = 29.72$; $p < .001$. Scheffe multiple comparison tests indicated that the speakers with high levels of intelligibility were perceived as more authoritative and of higher character than speakers using moderate levels of intelligibility; in turn, speakers using moderate levels of intelligibility were perceived as more authoritative and of higher character than speakers using low levels of intelligibility.

Univariate results for cultural similarity revealed significant differences for authoritativeness, $F(2, 698) = 16.43$; $p < .001$, and for character, $F(2, 699) = 5.61$; $p < .004$. Scheffe multiple comparison tests indicated that the speakers high in cultural similarity were perceived as more authoritative than speakers low in cultural similarity. In turn, speakers high in cultural similarity received higher ratings of character than those rated low in cultural similarity. In addition, speakers high in cultural similarity received higher ratings of character than those low in cultural similarity.

Univariate results for familiarity revealed significant differences for authoritativeness, $F(2, 699) = 11.17$; $p < .001$, and for character, $F(2, 699) =$

9.62; $p < .001$. Highly familiar accents were perceived as more authoritative than moderately familiar accents; in turn, moderately familiar accents were perceived as more authoritative than accents low in familiarity. In addition, speakers high and moderate in familiarity received higher ratings of character than those low in familiarity.

Univariate results for degree of accent revealed significant differences for authoritativeness, $F(2, 699) = 4.67$; $p < .01$, and for character, $F(2, 699) = 2.09$; $p < .124$. Scheffe multiple comparison tests indicated that speakers with a low and moderate degree of accent were perceived as more authoritative than speakers with a high degree of accent.

RQ #4 Results

A regression analysis was conducted to analyze the predictive ability of the four variables (intelligibility, similarity, familiarity, degree of accent) regarding judgments of credibility (See Table V). Three steps were performed, and results indicated that intelligibility accounted for the majority of the variance.

V. CONCLUSION AND RECOMMENDATIONS

Discussion

The results previously discussed suggest a number of possible interpretations. For **RQ1:** "To what extent does the type of foreign accent and speaker sex affect judgments of credibility?," findings indicate that speakers' accent alone does not effect listeners' perceptions of credibility. This finding supports previous research that positive or negative reactions to speakers with foreign accents are an immediate reaction to the voice based on previous experience with accented English speech (Anisfeld, Bogo, & Lambert, 1962), but are not necessarily based on stereotypes about any particular national group.

For **RQ2:** "To what extent does the type of foreign accent and speaker sex affect judgments of (a) intelligibility, (b) similarity, (c) familiarity, and (d) degree of accent?" the results indicate that the American and British accents were rated more highly on all four of the dependent variables than any of the other foreign accents. These results are not surprising, considering that the American and British were the only "native-English" speakers in the group. Although the British speakers did have an accent, it was clearly one with which the respondents were familiar. In addition, British accents are traditionally found to be held in higher esteem by

listeners (Wilkinson, 1965). Argyle (1967) states that regional accent is, in fact, a main cue to class, although the accent may not *actually* relate to the speaker's social level.

For **RQ3:** "To what extent does (a) intelligibility, (b) similarity, (c) familiarity, and (d) degree of accent affect judgments of credibility?" the results indicate that all four of the independent variables affect judgments of overall credibility of the speakers. The intelligibility of the speaker clearly had the most impact on the raters' judgments of credibility. This supports Fayer and Krasinski's (1987) findings that non-native English speakers' pronunciation is a main factor in deciding whether the speaker is intelligible, because mispronunciation was reported as the quality which most distracted from the message. In the present study, understanding the message became the most important factor for the respondents, because they had no visual stimuli on which to make judgments (e.g., attractiveness, height, weight, gestures, etc.).

Similarity and amount of accent also had some, albeit a limited effect on the raters' judgments. These results point back to the intelligibility variable because the less intelligible the speaker is, the more accent is probably perceived, and the more accent the speaker has, the less culturally similar the speaker is perceived to be.

The final variable, familiarity, also had some effect on the ratings, and refers to how familiar the raters were with the accent. The effects of this variable are probably due to the inability of the raters' to identify the majority of accents. An informal briefing of the class after they had taken the survey indicated that with only a voice and no picture with which to identify the speaker, the raters could not identify the accent in most cases. Thus, even if the raters heard the accent often, they did not have visual cues to help categorize the speaker.

For **RQ4:** "What accent characteristics (intelligibility, similarity, familiarity, degree of accent) best predict judgments of credibility?" the regression analysis suggested that intelligibility of the speaker accounts for the most variance in judgments of credibility. This, again, verifies that the more easily a speaker is understood, the more a listener can then focus on other speaker characteristics, as discussed above.

General Conclusions

In general, results indicated that the characteristics of all of the speakers' mean scores were above average. Based on a seven point maximum rating, the mean score of all the speakers was 5.087 for authoritativeness and 4.602 for character, which is somewhat above a median score of 4.0 on the semantic differential scale. Even eliminating the

American speakers' means, the average for the rest of the speakers was still somewhat above the median of 4.0. In fact, four of the foreign-accented speakers were rated higher than either of the American speakers for authoritativeness (Indian-F, Gaelic-M, Germanic-M, and British-F), and three of the foreign-accented speakers were rated higher than either of the American speakers for character (Indian-F, Germanic-F, and Japanese-M). Surprisingly, the American speakers were not scored much higher than the majority of the foreign accented speakers. For example, for authoritativeness, the American speakers had a mean score of 5.470, and the mean for the entire group was 5.087. One reason for this may be that some of the questions on the survey (e.g., "I (a) regularly, (b) occasionally, (c) seldom, (d) never, have contact with people whose native language is NOT English") may have led the audience to believe that they had listened to a foreign-accented speaker; thus, their pre-formed stereotypes about accented-English speakers may have subconsciously caused them to rate the American speakers lower.

As previously mentioned, at the conclusion of the survey, the raters were given an informal debriefing, and when asked to identify the language accent of the speaker, the vast majority of raters were unable to do so. When asked to try and identify the American speakers, only a few members of the audience guessed correctly. Most of the raters have probably not had

the opportunities to travel to foreign countries, so they lacked the experience required to make fine-line distinctions between foreign accents. Low credibility scores are more likely due to the raters judging the speakers as "not like me," or "not Oklahoman," rather than basing ratings on specific stereotypes held of a certain ethnic group.

Another interesting point is that out of all the speakers' mean scores, the Germanic male speaker was scored the *highest* overall on authoritativeness ($\bar{x}$ = 5.944), as well as highest overall for character ($\bar{x}$ = 5.025). The Cantonese male received the *lowest* overall score on authoritativeness ($\bar{x}$ = 4.373), which was only slightly below the Semitic female ($\bar{x}$ = 4.393), while the rest of the group scored very close to one another on character. Remarkably, the male and female speakers were split almost evenly (6-5) for authoritativeness means; the most significant differences were between the male and the female for Indian, Gaelic, Germanic, and British groups. One explanation for the significant differences may be the differences in cultural prosodics interacting with general sex stereotypes. For example, Japanese native speakers, in general, speak at a lower volume than other commonly heard languages, and a general sex stereotype about men is that they speak louder; thus, listeners may rate a Japanese male lower in credibility, since a quieter speaking tone

contradicts their currently held stereotype about the speaking volume of the "average" male.

Limitations

One problem may have resulted from using different speakers for each language type, rather than using the verbal guise technique employed in previous research. Both methods have their limitations; the verbal guise technique sacrifices external validity due to the lack of authenticity of the speech, and using different speakers for each language sacrifices internal validity due to the lack of control of covariates such as vocal characteristics idiosyncratic to the particular speaker.

In addition, the content of the passage, which was chosen specifically because it was neutral, may have caused difficulty for subjects in rating the credibility of the speakers because it was not controversial enough or ecologically valid. Because of its neutrality, the speakers did not have to make any attitudinal changes based on the speakers' presentation, thus the subjects may have rated the speakers simply on how deviant from the norm they sounded in comparison to native-English speakers.

Analysis of data may have also been a problem because each dimension (character and authoritativeness) was analyzed as a whole, rather than item analyzed. An item analysis may have provided more detailed

feedback on specific perceived characteristics of each speaker. For example, a certain speaker may have scored a high of 7 on the friendly-unfriendly item, but may have scored a low of 1 on the intelligent-unintelligent item, making the mean score a 4, which is a holistic picture, but not necessarily an accurate account of the raters' perceptions. Moreover, given the cognitive complexity issue, the semantic differential scale may be too vague for raters to make fine-line distinctions. A Likert or Likert-type scale may be a better overall assessment of speakers' characteristics, because raters' could better specify their agreement or disagreement with statements of judgment toward the speaker.

Recommendations for Future Research

Future research of listener perceptions of accented-English speech would benefit from increasing the number of speakers representing each language accent variety. The present study utilized only one male and one female speaker for each accent variety, so it is possible that results may have been influenced by individual characteristics of the speakers.

It also may be interesting to have the raters formally attempt to categorize the accent type on the survey. This would allow the evaluator to

assess whether *actually* being able to identify the accent correctly influences the raters' judgments of credibility.

Finally, ecological validity should be taken into consideration by selecting passages to be read with more realistic content; in this way experimental findings could be more easily linked to real life settings. One idea is to have some speakers read passages with content stereotypic to their ethnic group (i.e., Japanese talking about electronics) and other speakers read passages which contradict expectations about their ethnic group (i.e., Arabs talking about the stock market). Perhaps then, results will indicate contextual differences among different language accents. In addition, interesting findings may result from identifying the speakers' language accent to some raters before they rate the speaker, and not identifying the accent to other raters, so as to get a more accurate finding regarding whether the speakers are eliciting ethnic stereotypes, or if the raters are rating simply on the amount of perceived difference from the "norm."

Conclusion

This study indicates that differences in pronunciation of the standard language has great impact on the perceptions of overall credibility by native speakers of the language. More specifically, the intelligibility of the spoken words seems to most significantly affect listeners' judgments of credibility;

the more easily a speaker is understood, the more credible that speaker will be perceived. Further research is required to investigate the specifics of accent varieties in different contexts, but accent differences *must* be considered in any type of social interaction. While this study has been primarily sociolinguistic, the interrelationship of speech style with other socially significant phenomena is an indisputable fact. For the foreign language layperson, it is important to remember to withhold judgments about dissimilar others to get a total picture apart from, but not independent of, the language variable.

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APPENDIXES

APPENDIX A

Neutral Passage

"Good morning, my name is _____. I represent a multinational company with a well-known reputation, operating worldwide since 1945. Our company produces a complete line of athletic shoes for soccer, basketball, tennis, and other sports. Last year, our sales increased by 25% and, depending on the sales volume, we offer the best prices and payment terms in the market. We are also willing to help you with marketing services such as planning, market research and the design of point of purchase displays. We also guarantee warehouse delivery at a price which would allow you an attractive margin and a highly competitive retail price. So, if you decide to sell our line, we would consider giving you exclusive distribution in the United States. Of course, this requires a minimum order depending on what the market can bear and subject to negotiation when we start our business relations. I will call you in a few days to set up another appointment and talk about this. It has been a pleasure."

(Tsalikis and Ortiz, 1992)

APPENDIX B

Demographic Information Survey Questions

1. What is your sex? A) Male B) Female

2. What is your age? A) 17 - 22
   B) 23 - 25
   C) 26 - 28
   D) 29 - 31
   E) 32 - 34
   F) 35 and over

3. Ethnicity:
   A) Native American
   B) African American
   C) Hispanic
   D) Caucasian
   E) Asian
   F) Other

4. I _____ have contact with people whose native language is NOT English.

   A) Regularly
   B) Occasionally
   C) Seldom
   D) Never

APPENDIX C

Credibility Scales
(Authoritativeness & Character)

intelligent	----------	unintelligent
untrained	----------	untrained
uninformed	----------	informed
competent	----------	incompetent
stupid	----------	bright
honest	----------	dishonest
selfish	----------	unselfish
sympathetic	----------	unsympathetic
high character	----------	low character
untrustworthy	----------	trustworthy
expert	----------	inexpert
moral	----------	immoral

APPENDIX D
Vocal Qualities

General Vocal Quality

warm	----------	cold
interested	----------	bored
pleasant	----------	unpleasant
appealing	----------	unappealing
composed	----------	uncomposed
focused	----------	distracted
strong	----------	weak
formal	----------	informal

Loudness

loud	----------	soft

Rate

fast	----------	slow

Tempo

varied	----------	unvaried

Pitch

varied	----------	monotonous
rhythmic	----------	jerky
high	----------	low

Fluency

fluent	----------	nonfluent
smooth	----------	not smooth

APPENDIX E

Scales for Intelligibility, Similarity, Familiarity, and Degree

Intelligibility

clear	----------	unclear
easy to understand	----------	difficult to understand
intelligible	----------	unintelligible

Similarity

similar to mine	----------	dissimilar to mine
different from mine	----------	a lot like mine
resembles mine	----------	doesn't resemble mine

Familiarity

I hear it frequently	----------	rarely ever hear it
sounds familiar	----------	sounds unusual
strange	----------	commonplace

Degree of accent

strong	----------	weak
unnoticeable	----------	noticeable
heavy	----------	light

APPENDIX F

Language Codes

	Language	*Sex*		*Language*	*Sex*
American			**Indian**		
M	0001	01	M	0002	01
F	0001	02	F	0002	02
Gaelic			**Germanic**		
M	0003	01	M	0004	01
F	0003	02	F	0004	02
British			**Italic**		
M	0005	01	M	0006	01
F	0005	02	F	0006	02
Semitic			**Japanese**		
M	0007	01	M	0008	01
F	0007	02	F	0008	02
Cantonese			**African**		
M	0009	01	M	0010	01
F	0009	02	F	0010	02
Slavic					
M	0011	01			
F	0011	02			

APPENDIX G

Institutional Review Board -- Human Subjects Approval Form

OKLAHOMA STATE UNIVERSITY

OSU

Vice President for Research
Dean of the Graduate College
203 Whitehurst
Stillwater, Oklahoma 74078-1020
405-744-6501, FAX 405-744-6244
Internet collins@okway.okstate.edu

December 10, 1996

Dr. David C. Schrader
Ms. Jennifer L. Anderson
Speech Communication
109 Morrill Hall
CAMPUS

SUBJECT: "Exempt" IRB application to review - #AS-97-004, "The Effects of Foreign Accent on Perceptions of Credibility".

Dear Dr. Schrader & Ms. Anderson:

We have reviewed the above referenced IRB application. Please be advised that if the application had been directed in its present form to the IRB before the research had been started, the project would have been reviewed and approved as "Exempt".

Sincerely,

John H. Wyckoff, III
Chair, Institutional Review Board

JHW:gcc

cc: Dr. Toni Shaklee

TABLE I

Authoritativeness Means for Accent by Speaker Sex

Factor	Mean	Std. Dev.	N
American			
male	5.500	1.115	39
female	5.440	1.002	25
Indian			
male	4.897	1.332	26
female	5.539	.865	34
Gaelic			
male	5.668	.891	46
female	4.685	1.063	27
Germanic			
male	5.944	.807	27
female	4.821	1.235	26
British			
male	5.410	1.237	24
female	5.850	.869	39
Italic			
male	4.827	.990	25
female	4.929	1.104	26
Semitic			
male	4.523	.910	43
female	4.393	1.400	28
Japanese			
male	5.020	1.090	25
female	4.907	1.162	25
Cantonese			
male	4.373	.971	25
female	4.829	1.171	41
African			
male	5.151	.879	42
female	4.842	.971	39
Slavic			
male	4.878	1.023	26
female	4.976	1.118	41
TOTALS	5.087	1.125	699

TABLE II

Character Means for Accent by Speaker Sex

Factor	Mean	Std. Dev.	N
American			
male	4.756	1.147	39
female	4.540	.864	25
Indian			
male	4.256	.824	26
female	4.882	.783	34
Gaelic			
male	4.627	.918	46
female	4.481	.767	27
Germanic			
male	5.025	1.029	27
female	4.808	.860	26
British			
male	4.653	1.045	24
female	4.692	1.043	39
Italic			
male	4.727	1.007	25
female	4.494	.959	26
Semitic			
male	4.395	.782	43
female	4.375	1.143	28
Japanese			
male	4.767	.609	25
female	4.667	.761	25
Cantonese			
male	4.440	.774	25
female	4.508	.908	41
African			
male	4.587	.636	42
female	4.752	.883	39
Slavic			
male	4.519	.886	26
female	4.341	.791	41
TOTALS	4.602	.898	699

TABLE III

Intelligibility, Similarity, Familiarity, and Degree Means for Accent by Speaker Sex

Factor	Clarity	Similarity	Familiar	Degree	N
American					
male	4.034	5.222	5.838	5.060	39
female	5.907	5.227	5.480	5.667	25
Indian					
male	3.154	1.923	3.962	2.026	26
female	5.147	2.324	5.010	2.539	34
Gaelic					
male	4.993	3.246	3.957	2.362	46
female	3.123	2.185	3.531	2.358	27
Germanic					
male	2.123	3.037	4.123	2.802	27
female	4.038	1.923	4.141	2.397	26
British					
male	5.667	3.500	4.708	2.292	24
female	5.368	3.179	4.513	2.590	39
Italic					
male	4.853	1.853	4.733	5.667	25
female	3.590	2.333	5.000	2.000	26
Semitic					
male	3.535	1.876	4.047	2.186	43
female	2.512	1.595	3.929	1.655	28
Japanese					
male	3.907	1.987	4.147	2.040	25
female	3.893	2.040	4.960	2.133	25
Cantonese					
male	3.280	1.800	4.573	1.667	25
female	3.065	1.805	4.065	2.163	41
African					
male	2.902	1.894	4.423	1.748	42
female	2.880	2.222	4.265	2.034	39
Slavic					
male	3.641	2.321	3.474	2.615	26
female	3.740	2.073	3.878	1.951	41
TOTALS	4.100	2.541	4.386	2.489	698

TABLE IV

Credibility Means by Accent Characteristic*

IV's	Authoritativeness	Character	N
Clarity			
High	4.39_a	4.25_a	140
Moderate	5.09_b	4.56_b	418
Low	5.81_c	5.03_c	144
Similarity			
High	4.82_a	4.47_a	252
Moderate	5.13_b	4.63_{ab}	335
Low	5.52_c	4.79_b	114
Familiarity			
High	4.71_a	4.30_a	107
Moderate	5.08_b	4.61_b	470
Low	5.40_c	4.81_b	125
Degree of Accent			
High	5.17_b	4.69_a	159
Moderate	5.15_b	4.62_a	426
Low	4.85_a	4.48_a	117

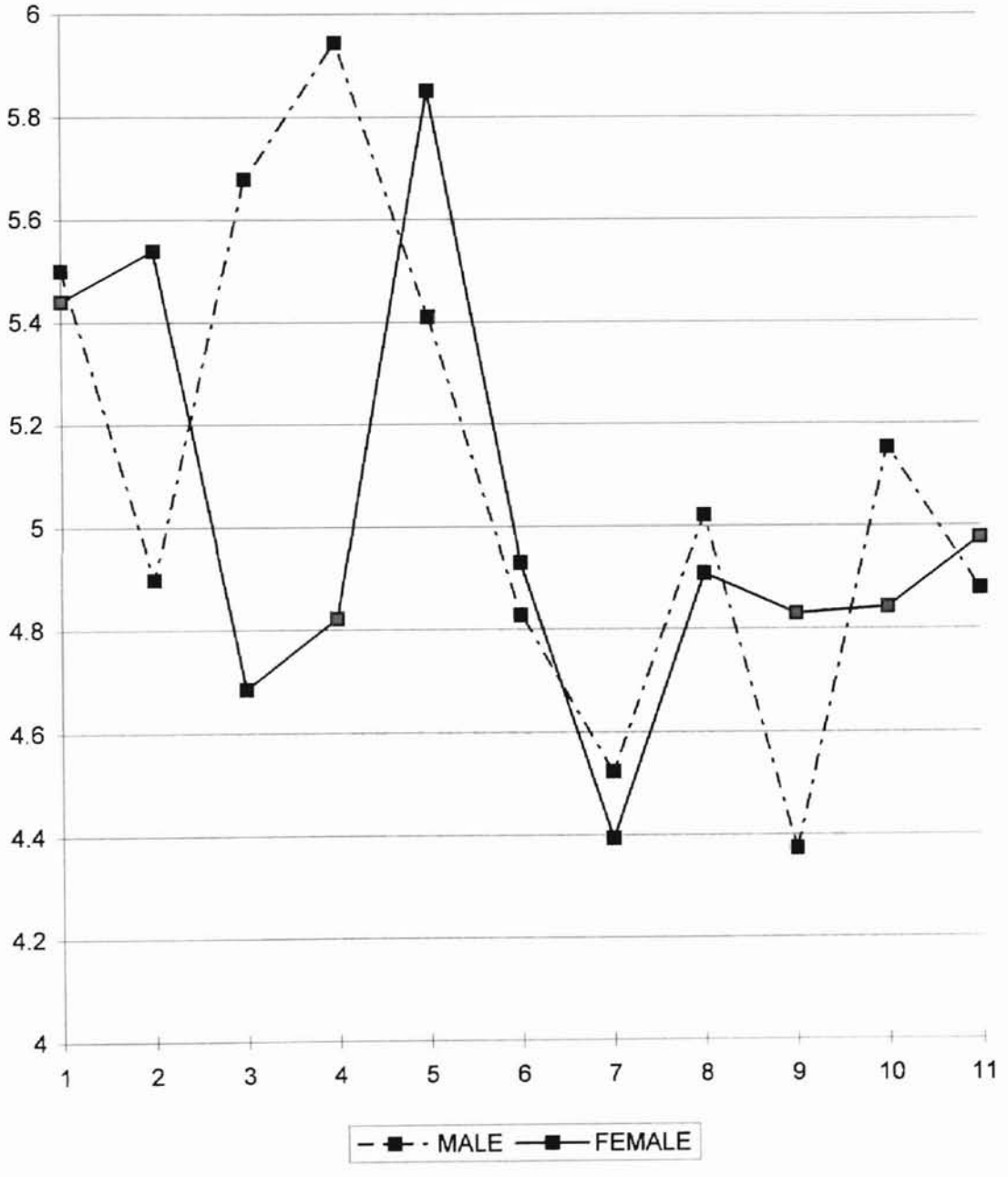
* Means sharing a common subscript are not statistically different at .05

TABLE V

Regression Analysis Results

Step	Variable	Rsq	F (Eqn)	Sig. F	Beta
1	CLARITY	.2182	195.147	.0001	.4672
2	DEGREE	.2271	102.549	.0001	-.1041
3	FAMILIARITY	.2352	71.444	.0001	.0979

FIGURE 1
Authoritativeness Mean Scores by Speaker Sex



VITA

Jennifer Lynn Anderson

Candidate for the Degree of

MASTER OF ARTS

Thesis: THE EFFECTS OF FOREIGN ACCENT ON PERCEPTIONS OF CREDIBILITY

Major Field: Speech Communication

Biographical:

Personal Data: Born in Hinsdale, Illinois, on October 30, 1972, the daughter of James and Barbara Berry.

Education: Graduated from Rio Mesa High School in Oxnard, California in June 1990; received Bachelor of Science degree in Speech Communication from Oklahoma State University, Stillwater, Oklahoma in May 1995. Completed the requirements for the Master of Arts degree with a major in Speech Communication Consultancy at Oklahoma State University in December 1996.

Experience: Co-owner of I.E. COMM Associates, Inc., a communication consulting firm located in Stillwater, Oklahoma, established in 1995. Employed as a graduate teaching assistant by the Oklahoma State University Speech Communication Department, Fall 1995 semester.

Professional Memberships: American Society of Training and Development, Central States Communication Association.