0. INTRODUCTION. Since researchers in second language acquisition and classroom language teachers both began to become disenchanted in the 1960's and 1970's with the Audio Lingual approach to second language instruction, many new ways and means of teaching second and/or foreign languages have been introduced. A partial list of major post-ALM models would include The Silent Way (Gattegno 1972 and 1976), Total Physical Response (Asher 1982), Counseling-Learning (Community Language Learning) (Curran 1976), The Dartmouth Intensive Language Model (DILM, a.k.a. The Rassias Method) (Rassias 1967), Suggestopedia (Suggestology) (Lozanov 1979), The Proficiency Movement (Omaggio 1986; James 1985; Byrnes and Canale 1987; Higgs 1984) and The Communicative Approach (Krashen and Terrell 1983; Widdowson 1978; Brumfit and Johnson 1982; Blair 1982; Johnson 1982; Oller and Richard-Amato 1983; Savignon and Berns 1984). Several of these models have, in tum, produced one or more spin-offs, and present-day second language teachers have a relatively large repertoire of classroom methodologies from which to choose.

The majority of these second language teaching methodologies have been strongly influenced by models of both Cognitive Psychology (Ausubel 1968; Anderson and Ausubel 1965) and Humanistic Psychology (Rogers 1951 and 1961). Likewise, most of the above-mentioned classroom methods, either directly or indirectly, can readily be classified as communicative approaches to second language acquisition. All versions of communicatively-based language teaching models have several major points of agreement: (1) they stress the meaningful use of a second language for the purposes of true communication in the classroom; (2) they require the presence of a maximally high amount of what Krashen (1981) calls comprehensible input, and; (3) again in Krashen's terms, these models stress the creation of a classroom environment which produces a maximally low affective filter. However, another common thread running through all of the above mentioned language teaching methodologies, including those that are not communicatively-based, is the fact that none of these current models makes any genuine effort to deal with the teaching of pronunciation in the second language classroom. It is particularly curious that proponents of the so-called Proficiency Movement, while placing a great deal of emphasis on linguistic accuracy in the nascent stages of second language acquisition (to avoid what they call fossilization) include no provision for the teaching of pronunciation in the classroom (See, for example, Omaggio 1986.). After surveying different varieties of communicative methodologies, Terrell (1989:197) concludes that "Communicative approaches likewise have not known what to do with pronunciation". While none of the above-mentioned approaches to language teaching explicitly state that pronunciation is not to be taught, they all largely imply this by not including any type of pronunciation drills, explanations, exercises or any other explicit pronunciation instruction in their methodologies.

The question that must be asked at this point, then, is why none of these post-ALM language teaching methodologies has chosen to include the teaching of the sound systems of second languages. Since, after all, spoken language is the association of sound with meaning. There seem to be three principal reasons why methodologists have chosen not to include the teaching of pronunciation in current methodologies: (1) the explicit teaching of pronunciation appeals only to learning and not to acquisition, and is therefore of no value in a system that is attempting to get students to acquire language; (2) the constant reference to correct pronunciation or the correction of student pronunciation errors will inhibit a student from speaking by raising his/her affective filter; and; (3) since most second language instruction in the United States involves learners who have passed the so-called "ideal age" for language acquisition, it is felt that these adult students have already lost much of their innate capacity to acquire a native-like pronunciation in a second language.

Because of the issue raised by the last of the above three points, the research in this paper was undertaken to attempt to assess some of the perception and imitation abilities of adult second language learners. We attempted to look at a number of factors through the use of a mimicry paradigm which tested subjects' abilities to detect and imitate a foreign accent. Probably everyone has, at one time or another, heard speech produced with foreign accent. Previous research has established—not surprisingly—the fact that listeners are able to detect foreign accent (Barry 1974), but apparently little is known about just what constitutes a foreign accent. There are, of course, measurable physical differences between the speech of native and non-native speakers which can be revealed by instrumental analysis (see, e.g. Suomi 1976; Flege 1980; Flege and Eefling 1987). The principal focus of the present study, however,
will be to report some of the effects of attitude and experience on an individual's ability to perceive and imitate a foreign accent.

1. METHODOLOGY. Before actually beginning the data-collection process, a pilot-study was carried out to provide some idea of the kind of sound substitutions which occur in Spanish-accented English. Also, it was hoped that this pilot-study would reveal the kinds of substitutions Americans might produce when trying to imitate a Spanish accent. Ten English sentences which included a large variety of English sounds which might likely be mispronounced by native speakers of Spanish were recorded as spoken by native speakers of both Spanish and English. Based on these tapes, six English sounds likely to be replaced by other sounds in Spanish-accented English were then chosen (See Table 1).

A Spanish accent variant—the sound which seemed most likely to replace the target English sound in Spanish-accented English—was identified for each of these six English target sounds. All six of these expected Spanish-accent variants are sounds which occur in English in these same phonological environments. The presence of these sounds in Spanish-accented English can be readily understood in terms of differences in the sound systems of Spanish and English (Stockwell and Bowen 1965; Dalbor 1980).

The six English target sounds shown in Table 1 were chosen to represent different segment types and positions within the word: two of these were word-initial consonants, two were word-final consonants, and two were vowels. Each of these six English target sounds occurred in three different English CVC words (Table 1) which were embedded in both NP slots of the carrier sentence "The is on the..." This yielded a total of 18 test sentences, each containing two different English target sounds of interest, and allowed a maximum of 36 possible Spanish-accent variants by each of our subjects.

Subjects for this study were undergraduate American university students in four first-semester Spanish language classes. These students were chosen as subjects because their Spanish instructors were native speakers of Spanish who speak English with what could be described as a heavy Spanish accent. The experiment was carried out in a language laboratory where the test material was recorded on the same type of Wollensak tape recorders through head-set microphones held at a fixed distance from the mouth.

Before recording the test material, each subject filled out an anonymous questionnaire which included questions concerning personal history (age, sex, place of birth, residence, etc.) and twelve questions designed to provide information concerning a subject's attitudes toward and exposure to foreign accent in general, and to Spanish-accented English in particular (Appendix I).

The subjects were asked to read the English test sentences with the 'best imitation of a Spanish accent' they were capable of. They were not given explicit instructions concerning how to produce a Spanish accent, except that they were not to attempt to produce the impression of accentedness by pausing or stammering. Subjects were asked to read each sentence twice and were allowed to repeat a sentence if they were not satisfied with their production. To avoid the possibility that subjects seated in adjacent booths might influence one another, two different randomizations of the eighteen test sentences were distributed.

Subject selection criteria were developed to ensure a homogeneous as possible population of subjects who were familiar with Spanish-accented English. From the original population of 137, subjects were eliminated from the study if: (1) their recording did not meet a minimal standard of sound quality; (2) they were not between the ages of 18 and 30; (3) they were not monolingual native speakers of English; or (4) they had not lived in the South Florida area of the United States for at least the last previous five years (an area in which a large number of native speakers of Caribbean Spanish reside). In addition, subjects were eliminated if, according to their own self-report (Questions 1, 3, and 12 on the questionnaire; see Appendix I) they knew no foreigners or had never heard a foreign accent. From the remaining population, 25 male and 25 female subjects were randomly selected.

The 1800 English target sounds produced by the 50 subjects were then judged independently by two phonetically-trained listeners as falling into one of the following three discrete categories:

1. The target sound was produced as it normally occurs in English (e.g., vice [vays]).
2. The target sound was replaced by the expected Spanish-accent variant (e.g., vice [bays]).
3. The target sound was replaced by some other than the expected Spanish-accent variant (e.g., vice [mays]).

The two judges agreed initially in 91.2% of cases. The 40 sounds (2.2% of cases) for which agreement could not be reached after further listening were submitted to a third
phonetically-trained judge. To be scored as having produced the Spanish-accent variant a subject need have produced it only once during each of the two productions of a test sentence.

Differences in the frequency of production of English-accent variants were analyzed according to the independent variables of informant sex, phoneme identity, segment type, and position in the word and sentence. The significance of these differences were then tested by Chi-square analyses. A number of scales were also constructed from responses to the questionnaire, and the values of these scales were examined by a Spearman rank-order correlation analysis to determine if they would correlate with the total number of Spanish-accent variants produced by subjects.

Our subjects produced a total of 508 Spanish-accent variants, averaging about 10 per subject and ranging between 0 and 27 different variants per subject. There was no statistically significant difference between male and female subjects in frequency of production of these Spanish-accent variants. In the total corpus of 508 variants, only 11 'other' variants (i.e., non-Spanish-accent variants) were produced.

2.0. EFFECTS OF ATTITUDE AND EXPERIENCE. For the present study, we were interested only in determining whether familiarity with, or attitude toward foreign accent would be related to subjects' ability to imitate a Spanish accent. A number of scales were constructed from responses to the questionnaire which subjects completed before beginning the imitation experiment (Appendix I). The first scale concerned each subject's familiarity with Spanish accent and the second scale dealt with subjects' attitude toward Spanish accent. The third and fourth scales concerned a subject's attitude toward and familiarity with foreign accent in general. A Spearman rank-order correlation analysis was performed to determine if there was a relationship between ratings on these four scales and the total number of Spanish accent variants produced by each subject.

2.1 FINDINGS. We found that neither subjects' familiarity specifically with Spanish-accented English (Scale I, Table 2) nor subjects' attitude toward Spanish-accented English (Scale II, Table 2) correlated with the number of Spanish-accent variants produced by subjects. However, we did find significant correlations between speakers' familiarity with foreigners (Scale III, Table 2) and speaker attitude toward foreign accent in general (Scale IV, Table 2). Subjects' familiarity with foreign accent in general was positively correlated with the number of Spanish-accent variants produced (p<.05). That is, the more contact our subjects had with foreigners in general, according to their own self-report, the greater the number of Spanish-accent variants they produced. But at the same time, we found that subjects' attitude toward foreign accent was inversely correlated with the number of Spanish-accent variants produced. That is, the more negative a subject's attitude was toward foreign accent, the greater was the number of Spanish-accent variants s/he produced (p<.01).

2.2 DISCUSSION. These results seem to indicate that there is indeed a relationship between a person's attitude toward foreign accent and his/her ability to imitate one. It is somewhat surprising that neither subjects' familiarity with, nor attitude specifically toward Spanish-accented English seemed to affect our subjects' abilities to articulate relevant sound substitutions in their attempts to produce Spanish-accented English. We expected that a speaker's ability to produce some of the sound substitutions which are characteristic of Spanish-accented English would have depended to some extent either on how often the subject hears Spanish-accented English, or how s/he feels either about Hispanics or about how Hispanics speak English. It is possible that the subjects' self-reports were not accurate because questions touching on these factors were perhaps too direct, especially those regarding attitude toward Spanish accent and particularly in light of the potential social bond formed between (some of) the students and their Hispanic teacher. We did, however, find a slight tendency for greater contact with Spanish accent to correspond to a better imitation of Spanish accent, but this correlation was not statistically significant.

On the basis of our present preliminary findings, we can probably maintain, at least tentatively, that imitating a foreign accent represents a kind of skill. Spanish accent is, of course, a form of foreign accent, and we did find that greater familiarity with foreign accent in general correlated with ability to imitate Spanish accent. It may or may not be the case that a subject's experience hearing a Hungarian accent in English, for example, would help that person imitate Spanish-accented English, since it is possible that overall experience with foreign accents in general may make a listener more acutely aware of an additional foreign accent in his/her native language, and may likewise help this same individual in the task of imitating foreign accent. We can, however, probably assume that familiarity with Spanish accent has increased the subjects' ability to imitate a Spanish accent in English, and that the questionnaire was not sufficiently sensitive in assessing subjects' familiarity with Spanish-accented English.

Initially, the finding that subjects having a negative attitude toward a foreign accent tended to be better able to imitate a Spanish accent than subjects with a positive attitude might appear to be counter-intuitive if one assumes that dislike or disapproval of a group will lead speakers to pay less attention to the speech of that group. However, the reverse may actually be true if we assume...
that the behavior tapped by this experiment is indeed a skill. The more negative an individual feels toward foreign accent, the more closely s/he may attend to it.

Social psychologists discuss a phenomenon known as 'sensitization' which seems to apply to our present findings. For example, Himmelfarb (1966) reports that antisemites seem to be better able than unprejudiced individuals to identify photos of Jews. Along this same line, the close attention that members of one social, religious or racial group pay to the characteristics of another group often serves as the source of ethnic jokes, nicknames, and even fossilized and now-accepted expressions, e.g. "to get off Scot-free". Furthermore, some people specifically utilize imitations of foreign accent to deride other national or ethnic groups. This last observation suggests the possibility that persons having a very negative attitude toward accentedness may actually acquire their skill at imitating through practice. Also, a common subjective experience is for the foreign accent of an acquaintance to seem to disappear, or at least we seem to become less overtly aware of it, as we develop a friendship or social bond with that person.

An alternative interpretation to the present findings might be that some individuals develop a negative attitude toward accentedness because they are relatively more sensitive to phonetic differences than are other people. However, in the absence of any evidence that some individuals have this kind of hyper-sensitivity, we can probably maintain that differences in attitude toward accentedness may indeed lead to differences in ability to imitate foreign accent.

3. CONCLUSIONS. It seems that the ability to imitate foreign accent depends to a certain extent on exposure to foreign accent, but that a person's attitudes may be even more important, a negative attitude causing a speaker to attend more closely to phonetic differences between native and non-native speakers.

Furthermore, the correlation which was found in the present study between attitudes and familiarity with foreign accent with subjects' ability to imitate foreign accent suggests that an imitation task such as the present one may prove to be a useful indirect method of assessing attitudes toward linguistic differences.

A preliminary examination of other data provided by the mimicry paradigm used in the present study suggests that listeners may be more sensitive to misarticulations which occur in certain positions within a word and sentence than they are to others. Obviously, a follow-up study which includes a larger corpus of data must be carried out before such a hypothesis can be maintained. Also, these data suggest that the imitation of foreign accent reflects a set of internal stereotypes which develop as a result of hearing a foreign accent, in light of the fact that (1) subjects in this study were able to produce many sound substitutions which actually occur in Spanish-accented English; and (2) they produced more of certain sound substitutions than others. Given the fact that all of the Spanish-accent variants produced in this study are sounds which occur in English, a preliminary hypothesis that perception of foreign accent is based at least in part on internal stereotypes, and not wholly on experience, appears to be supported. Finally, with respect to the question of whether adult language learners are able to perceive and produce sounds they hear, the data herein and in other research (see for example Flege and Hammond 1982) strongly suggest that at least many adult language learners have not lost the ability to hear many subtle phonetic differences, and in turn, under certain conditions, to articulate such differences. What this information ultimately tells us about the acquisition of second language sound systems by adults, or how the teaching of pronunciation should fit into a communicative language teaching methodology is still an open question and must await the results of further research. It seems clear, however, that adult second language learners are capable of far greater powers of perception and sound production than they have been given credit for by many second language researchers.
Table 1

<table>
<thead>
<tr>
<th>English Target Sound</th>
<th>Spanish-accent Variant</th>
<th>Lexical Forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vowels</td>
<td>[i]</td>
<td>fig, pig, wig</td>
</tr>
<tr>
<td></td>
<td>[u]</td>
<td>book, hook, crook</td>
</tr>
<tr>
<td>Initial</td>
<td>[b]</td>
<td>vice, veil, vase</td>
</tr>
<tr>
<td>Consonants</td>
<td>[ʃ]</td>
<td>shell, sheet, sheep</td>
</tr>
<tr>
<td>Final</td>
<td>[s]</td>
<td>nose, cheese, hose</td>
</tr>
<tr>
<td>Consonants</td>
<td>[t]</td>
<td>bean, phone, bone</td>
</tr>
</tbody>
</table>

Table 2

| Scale I: Familiarity with Spanish accent. | \( r = -0.114 \) | \( \text{signif.} = 0.429 \) |
| Scale II: Attitude toward Spanish accent. | \( r = -0.084 \) | \( \text{signif.} = 0.550 \) |
| Scale III: Familiarity with Foreign accent. | \( r = 0.284 \) | \( \text{signif.} = 0.045 \) |
| Scale IV: Attitude toward Foreign accent. | \( r = -0.378 \) | \( \text{signif.} = 0.007 \) |

Appendix I: Foreign Accent Survey

Check only one:
1. How many foreigners do you know?
   - NONE
   - A FEW
   - MANY
   - VERY MANY
2. If you were a foreigner, would you try to get rid of your accent?
   - YES
   - PROBABLY
   - MAYBE
   - NO
3. How many people do you know that speak with a foreign accent?
   - NONE
   - A FEW
   - MANY
   - VERY MANY
4. Foreign accents sound
   - VERY BAD
   - BAD
   - OK
   - NICE
5. A foreign accent will hurt a person’s chances for success.
   - YES
   - PROBABLY
   - MAYBE
   - NO
6. A Spanish accent sounds
   - VERY BAD
   - BAD
   - OK
   - NICE
7. Which accent do you like most?
   - FRENCH
   - FINNISH
   - SPANISH
   - GERMAN
8. If you lived in Europe, would you try to lose your accent?
   - NO
   - MAYBE
   - PROBABLY
   - YES
9. Intelligent, hard-working people can always lose their foreign accent.
   - NO
   - MAYBE
   - PROBABLY
   - YES
10. How often do you talk to people with a Spanish accent?
    - VERY OFTEN
    - OFTEN
    - Seldom
    - NEVER
11. Which accent do you like the least?
    - FINNISH
    - GERMAN
    - SPANISH
    - FRENCH
12. How much do you hear a Spanish accent?
    - NEVER
    - Seldom
    - OFTEN
    - VERY OFTEN
References


Rassias, John A. 1967. A philosophy of language instruction, or the importance of being linguistically earnest. Hanover: Dartmouth University.


