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ABSTRACT

A study was designed to measure the effects of regional dialects on the attitude of the receiver toward the source. Four hundred ninety-two subjects who were randomly selected from a basic communication course listened to a speech given by a native of one of five dialect regions (Southern, Northeastern, General American, New York, and Southwestern) and were then asked to complete a semantic differential designed to measure four dimensions of source credibility. Sex of source, sex of respondent, and dialect of the source were the independent variables analyzed. Significant differences were found on all four credibility dimensions for the main effect of regional dialect; for instance, New York and General American dialects were rated significantly higher on competence dimensions than were other dialects. No significant interactions were found between sex and stimulus conditions. It may be that dialects serve as cues to regional stereotypes, although further research in this area is needed. (Author/SH)



Communication Research Center  
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*The Effects of Regional Dialects on Initial Source Credibility*

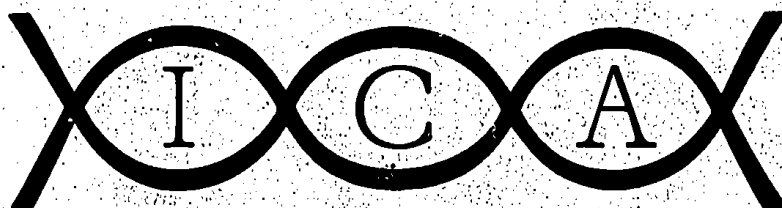
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## ABSTRACT

### THE EFFECTS OF REGIONAL DIALECTS ON INITIAL SOURCE CREDIBILITY

J. Kevin Toomb, James G. Quiggins, Dennis L. Moore  
Lynn B. MacNeill, and Charles M. Liddell

Early research in vocalic behavior indicated a direct correlation between regional dialects and stereotyping. This study was designed to measure the effects of regional dialects on the attitude of the receiver toward the source.

Five dialects were chosen on the basis of the following criteria: (1) the dialect must be a common one which is easily recognizable, (2) the dialect must represent a geographically contiguous area of the United States, and (3) the dialect must represent a significant portion of the population. The five selected dialects were General American, Southern, Southwestern, Northeastern, and New York City. Samples of these dialects were collected by the late phonetics expert C.K. Thomas and secured for this experiment from Mr. Keith Davidson of the Illinois State University Department of Speech Pathology. The recorded dialect samples were phonetically balanced and the message content was identical.

Four hundred ninety two subjects were randomly selected from the basic communication course at Illinois State University. All of the subjects used in the analysis had lived most of their life in a state within the General American region. Subjects listened to a speech given by a native of one of the five dialect regions and were then asked to complete a semantic differential type questionnaire designed to measure four dimensions of source credibility.

Sex of the source, sex of the respondent, and dialect of the source generated a 2x2x5 analysis of variance design. It was hypothesized that the regional dialect would have a significant effect on the credibility of the source of communication. The hypothesis was confirmed at Alpha level .05.

Studentized Range Statistic (q-test) was used in an a posteriori analysis of the data and suggests that dialects may serve as cues to regional stereotypes. This conclusion implies that further research cross-nationally may provide valuable information about the effects of regional dialects on initial source credibility.

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Communication research has consistently substantiated that the perceived credibility of a source has an effect upon the impact of a message. The general findings have been that the greater the perceived credibility of the source, the more likely the receiver is to accept the source's influence attempts.

Realizing the importance of the credibility construct, communication researchers have become increasingly concerned with the refinement of credibility measurements (McCroskey, Scott, and Young: 1971) and also with the effect of verbal message variables on the credibility of a source.

The effect of nonverbal behavior on credibility has been a relatively neglected area of research. Contemporary communication behaviorist's oversight in the area of nonverbal communication may be due to our overreaction to the elocution movement. It should be made clear that this study is not concerned with elocutionary techniques or articulatory methods, which may or may not improve speaking effectiveness, but there is some reason to suspect that spontaneous nonverbal cues which are characteristics of a source may have considerable effect on the receiver's perception of the speaker.

Mehrabian (1968) has reported that the verbal portion of a message involves 7 per cent of its total impact, while the facial portion involves 55 percent, and the vocal 38 per cent. Research also suggests that when verbal and vocal cues conflict, a receiver is more likely to respond to the vocal cues than to the verbal message (McCroskey, Larsen, and Knapp; 1971).

Most of the literature examining the effects of nonverbal vocal cues on credibility has concerned itself with nonfluency or vocal characteristics that are actually components of delivery (Sereno and Hawkins, 1967; McCroskey and Mehrley, 1969). These studies attempt to prescribe how one should speak in light of the inferences that will be drawn by his audience.

Another group of studies have found that untrained audiences are able to identify the emotional state of a source from only his vocal cues (Davitz and Davitz, 1959; Davitz, 1964; Vetter, 1969). Closely related to this group is research on the effects of vocal pitch and rate on the credibility of a source. Pearce (1971) found that a speaker which purposely sounded highly emotional, passionately involved, and inalterably committed was perceived as more dynamic than a speaker who sounded scholarly dispassionate, yet involved and serious when the message was passed through an electronic filter. Pearce and Conklin (1971) used two modes of filtered speech and found that the conversational mode was perceived as more credible, higher socio-economic characteristics and more honest than a speaker who portrayed the dynamic mode.

We consider these groups of research as an investigation into the effects of delivery and not the study of spontaneous nonverbal behavior. The dominating characteristics of nonverbal communication is culture and the quality of delivery is not necessarily a cultural phenomenon. Research examining the perception of

of personality from vocal characteristics seems more related to the concern of the present investigation.

Allport and Cantril (1934) found that untrained audiences could accurately pair personality descriptions with voices using normal radio delivery. They concluded that judgements were based on stereotypes about certain vocal characteristics. Fay and Middleton (1940) attempting to determine the accuracy with which the intelligence of a speaker could be judged by hearing his voice over a public address system also concluded that listener's judgements are a result of stereotypes. Addington (1968) used seven vocal characteristics and varied vocal pitch and rate in 252 recordings. He found that vocal cues do elicit stereotyped personality judgements.

The influence of vocal stereotypes is particularly obvious in studies on the effects of different languages and dialects on interpersonal evaluations. Lambert et al. (1960) found that bilingual speakers were rated differently on certain personal qualities such as intelligence, ambition, appearance, leadership, and character when they read in English than when they read in French. Both French and English students rated the speaker more favorably when he read in English. A similar methodology was used by Anisfeld et al. (1962) to compare speakers using standard English and speakers with a Jewish accent. Jewish and non-Jewish subjects rated speakers with a Jewish accent lower in height, appearance, and qualities of leadership.

Houck and Bowers (1969) also found that dialect interacts with message content. A speaker with a Southern accent was rated much less competent than one with a North Midland dialect on the topic of government aid to students, but when the topic was the integration of Southern colleges the credibility ratings were reversed.

Lee (1971) in a recent review of empirical research in dialect perception states that dialect perception research has implications for education and particularly the education of the disadvantaged. Since vocalic behavior can identify members of a particular social group, research along this line may be very applicable.

Lee (1971) has made some general observations concerning the research in this area. He points out that the widespread use of content-stimuli makes it difficult to determine what is being perceived from the voice. It may be dialect, voice quality, reading style or other possible vocalic cues. The technique of content-free speech creates an unrealistic circumstance and has no corollary outside of the laboratory.

There are also some problems with dependent measures used in dialect studies. Lee (1971) reports that on the whole, the scales are not accompanied by evidence of validity or reliability and it is questionable whether the instruments used are reliable over time. He also suggests that there should be evidence that a perceptual task, such as making judgements about a source by hearing his voice, is basically a natural activity. If the judgemental task is forced by the construction of the stimulus or measuring instrument it may not be of much value outside the context of the experiment. It should be noted, however, that judgements concerning a source, especially by means of nonverbal behavior, may be a subliminal response.

This study was designed to assess the effects of regional dialects within the continental United States on source credibility. Since the nature of the receiver's perception of a source's voice may be highly bound by subculture (or in this instance, regionalism), this is the first in a series of research studies to be conducted in each of the five dialect regions from which voice samples are used.

On the basis of these considerations and previous research we posed the following hypothesis:

Regional dialects, as cues to regionally-bound stereotypes, have significant effects on the credibility of a communication source.

### METHOD

#### SELECTION OF STIMULUS:

For some time, students of American pronunciation delineated three major speech regions: Eastern, Southern, and General American. The Eastern region was comprised of New York City and its environs plus the New England states east of the Connecticut River, while the Southern was made of the states of the Confederacy. The rest of the country comprised the General American region, (Leutenegger, 1963). C. K. Thomas, a linguistic geographer, plotted ten regions made up of (1) Eastern New England; (2) New York City; (3) Mid-Atlantic; (4) Southern; (5) Western Pennsylvania; (6) Southern Mountain; (7) Central Midland; (8) Northwest; (9) Southwest; (10) North Central (Thomas, 1958). Although these ten regions can be differentiated, for this study we arbitrarily collapsed the ten regions into five categories.

The five dialect regions used in this study are: (1) Southern, (2) Northeastern, (3) General American, (4) New York City, and (5) Southwestern. The states comprising each region are represented in Figure 1.

The voice samples were randomly selected from the C. K. Thomas collection which is in the library of the Speech Science Division of the Speech Communication Association under the direction of Mr. Keith Davidson, Department of Speech Pathology, Illinois State University. The samples include a reading of a standardized phonetically-balanced passage. The samples were re-recorded at 7½ IPS on three inch reels and included both a male and female speaker from each region.

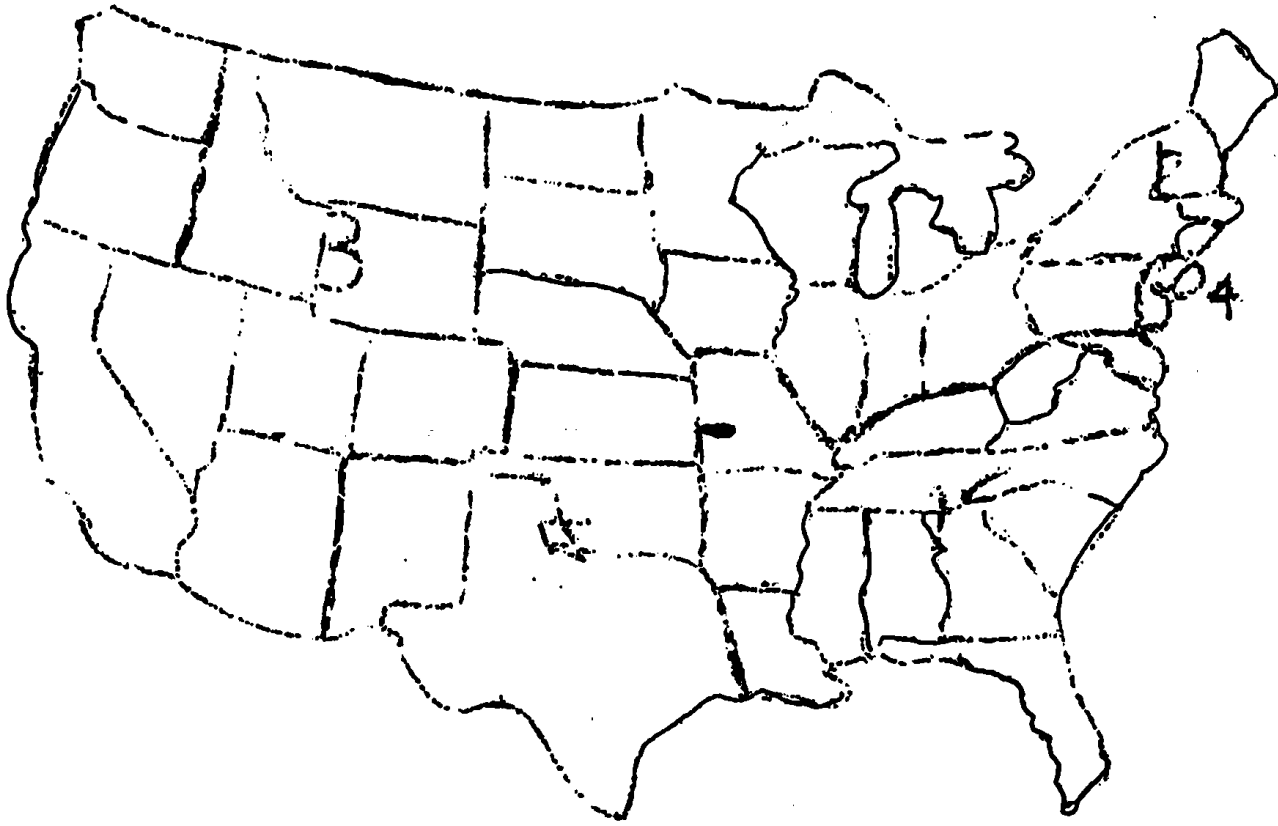
#### CREDIBILITY MEASURE:

Source credibility of the stimulus was generated from prior factor analytic research (McCroskey, Scott, and Young: 1971). Nineteen semantic differential scales were employed: talkative-silent, trained-untrained, nice-awful, qualified-unqualified, responsible-undependable, nervous-poised, calm-anxious, timid-bold, introverted-extroverted, expert-inexpert, aggressive-meek, sympathetic-unsympathetic, good natured-irritable, attractive-repulsive, cheerful-gloomy, excitable-composed, headstrong-mild, unfriendly-friendly, and inexperienced-experienced. These items previously factored into four dimensions labeled: "competence," "socialability," "dynamism," and "composure."

#### SUBJECTS:

Subjects were 502 undergraduate students enrolled in the basic communication course at Illinois State University. The final sample size was 492. Ten subjects were eliminated because they did not complete the semantic-differential scales or had not spent most of their lives in the General American region.

FIGURE 1



DIALECT REGIONS: (1) Southern, (2) Northeastern, (3) General American.  
(4) New York, (4) Southwestern.

## PROCEDURES:

The tape-recorded dialects were administered in 32 lab sections of the basic communication course at Illinois State University. Each class received either a male or female speaker from one of the five dialect regions. The recordings were all played at  $7\frac{1}{2}$  IPS on identical recording machines with standard volume settings. Following the tape, each subject was instructed to complete the questionnaire made up of the credibility semantic-differential scales and questions asking where they have spent most of their life and where they perceived the speaker to be from.

## DESIGN

This study generated a  $2 \times 2 \times 5$  factorial design with unequal n. Cell size varied from 44 to 55. The levels of the independent variables were (1) sex of the stimulus, (2) sex of the respondent, and (3) the five dialect regions of the stimulus.

## RESULTS

The data were submitted to principle components factor analysis and varimax rotation. An eigenvalue of 1.0 was established as the criterion for termination of factor extraction. For an item to be considered loaded on a resulting factor, a loading of .60 or higher was required with no loading of .40 or higher on any other factor.

A four factor structure was produced by the varimax rotation. These factors were labeled dynamism, sociability, composure, and competence. After the factor structure was determined, factor scores were computed by summing across the scales that loaded on a given factor.

The data were then submitted to a three-way analysis of variance at alpha level .05. The computer program used was developed by Dr. Joseph Sagebiel of Illinois State University. Significant differences were found on all four credibility dimensions for the main effect of regional dialect. A posteriori testing using the Studentized Range Statistic ( $\alpha$ -test) probed the significant observed effects. For a summary of these analyses, see Tables 1-4.

The female New York dialect was significantly higher on the dynamism factor than any of the other four dialects. The remaining four dialects were not perceived as significantly different on the dynamism factor.

On the sociability factor the significant difference once again was found between the New York dialect and the other four stimulus dialects. The New York dialect was significantly less sociable than the other treatment conditions which were not perceived as significantly different from one another on the sociability dimension.

The female Southern dialect had the lowest mean score on the composure dimension with all other dialects being perceived as significantly higher. The male General American and New York stimuli were significantly more composed than the Eastern and Southwestern dialects.

The New York and General American dialects were rated significantly higher on the competence dimensions than were the Northeastern, Southwestern, and Southern dialects. There was no significant difference between the Northeastern and South-



TABLES 1-4

MEAN CREDIBILITY SCORES FOR DIALECT AND SEX OF  
STIMULUS CONDITION\*

<u>Credibility Dimension</u>	<u>Sex of Stimulus</u>	<u>DIALECT CONDITION</u>				
		S.	N.E.	G.A.	N.Y.C.	S.W.
<u>Dynamism</u>	M	13.19 a	12.18 c	13.33 e	13.30 g	11.80 h
	F	12.19 b	13.93 d	12.24 b	16.45 a-i	12.76 i
<u>Sociability</u>	(Combined)	14.96 a	14.75 b	15.08 c	13.45 a-d	14.99 d
<u>Composure</u>	M	13.37 a-h	11.90 blqrs	15.46 dkqt-w	14.66 fmr	12.95 qow
	F	10.06 al-p	12.93 cjt	13.51 elu	13.87 bnsv	13.61 hox
<u>Competence</u>	M	9.730 fgh	9.755 l-m	13.891 bfjnoqv	9.20 p-t	9.39 u-y
	F	8.096 a-e	11.250 ainpu	11.531 cgkorw	11.64 dl sx	11.61 ehnty

\*Means with same subscript on a credibility dimension are significantly different at the .05 level.

Possible range of scores was 3-21.

western dialects, but both were perceived as significantly more competent than the Southern dialect.

The sex of the respondent did not interact significantly with any of the stimulus conditions.

### DISCUSSION

The present study supports the prediction that regional dialects have an effect on the credibility of a source. Based on previous research, this study was conducted under the assumption that dialects serve as vocal cues to regional stereotypes. Examination of our data indicates this assumption may deserve further consideration.

One difficulty in interpreting our results as vocal cues to stereotypes is that the determination of regional stereotypes to some degree is highly subjective and offers no standard by which to make a comparison between the dialects and the regional stereotype. Mass media characterizations of regional stereotypes may cause individuals to associate vocal characteristics with gross generalizations concerning the personality of individuals residing in a particular region.

The New Yorker may be perceived as an aggressive active individual caught up in the rapid pace of one of the nation's foremost urban centers. This type of perception would be consistent with the findings of this study, which supports the idea that the New York stereotype is more dynamic. The low sociability rating may be explained by the notion of the cold insensitive nature of the big city and the object-orientation of the New Yorkers because of the population density in which they exist. Since New York City may be perceived as the hub of the country and one of the leading business centers, it seems safe to assume that the residents of the regions may be seen as highly competent. This mass media further contributes to the New York stereotype by presenting gangster caricatures with New York accents. This perception of the New Yorker is heightened if the receiver exposure to a "New York" type is limited to the media portrayed.

The credibility of the General America dialect is consistent with possible stereotypes obtained from the General American voice, which is the standard for the mass media. The General American may represent a qualified and composed individual who is not particularly dynamic or sociable but a moderate personality type which is promoted by the broadcast image.

The Southwestern dialect was not outstandingly differentiated and may not be readily identified as a distinct region or as being associated with a particular stereotype. This may also be due to the possible limited exposure of the population sample with individuals of the Southwestern region. The same may be a possible explanation concerning the Northeastern dialect.

An explanation concerning the credibility of the Southern dialect as the least competent seems consistent with the perceived nature of a resident of the Southern region. The results concerning the composure factor however, seems to be inconsistent with the Southern stereotype. If the general Southerner is considered to live in a slow-paced, relatively easy-going environment we may expect him to be characterized by a high rating on the composure dimension.

Although the ability of the respondents to recognize the dialect of a stimulus was not statistically tested; it may be that the perceptions of the source are based on the rate, pitch, or variations in the voice as well as vocal cues to

possible stereotyped ideas. It could be worthwhile to include scales designed to measure a specific stereotype for a given region which would assist the interpretation of dialects as cues to regional stereotypes.

Finally, it should be noted that there is reason to suspect different results in different regions. By repeating this experiment in each region from which a dialect sample was taken we may be able to draw more accurate conclusions concerning the possibility of dialects as cues to regional stereotypes. The significance of the finding that vocalics effects the credibility of a source is worthy of further research because of the importance of source credibility on attitude change and the communication process in general.

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APPENDIX A-1

Script used by experimenter's for recorded dialect stimuli.

One horrid foggy day, rather late in February, we started south along a white sandy road through the forest. We were driving from Oregon to Florida, where my Aunt Mary runs an orange grove. She's a poor correspondent, and we were worried about her. In due course we passed a barnyard with a donkey and a few hogs. Overhead a goose honked, and fog rolled in from the water. We heard frogs in the swamps on the peninsula. After three or four miles we came out onto a barren desolate area. Suddenly the rain came down in torrents, and the roof of the car began to leak. We were sorry we hadn't fixed it before leaving home, but our plans had involved so many details that we stupidly didn't bother. Our clothes absorbed so much dampness that we felt cold, so we hurried on to the next town. After leaving the car to be greased at a garage, we found a restaurant, where we ordered coffee and pancakes with maple syrup. We waited by a mahogany fireplace, where some huge logs were burning cheerfully. The walls and floor were made with heavy pine boards, which were black with soot. We were surprised to see various odd things in the room. In one corner was a glass cabinet filled with dolls, some of them from foreign lands. By the chimney was a large laundry basket, and beyond it was an absurd looking parrot perched on a TV set. A little girl was whistling a mournful tune while she polished some spoons. Since our hands were greasy, we washed and rinsed them. Then we tried to solve a crossword puzzle on the back of an envelope, until a waiter brought our lunch through a narrow corridor from the kitchen. During the meal the rain cleared up enough to warrant our going on. We borrowed a cloth to clean the windows, and hoped that tomorrow would bring better weather. We followed route forty-four past the stone quarry near the Nevada state line. That night we slept a luxurious new tourist court, with revolving doors at the office. After a nourishing dinner we enjoyed the luxury of hot baths. The next day we drove through the wheat fields of eastern Colorado, and were well on our way across the country.