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EFFECTS OF PERCEIVED SOURCE CREDIBILITY, EGO-INVOLVEMENT, AND INITIAL ATTITUDE ON STUDENTS' IMAGES OF THE BLACK STUDENT UNION

DISSERTATION
Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By
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* * * * *

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INTRODUCTION

Research to date in speech-communication often has over-simplified the multidimensional, real-life communicative process by taking a static view of communicative behaviors.¹

An implication of this indictment by men at the New Orleans Conference on Research and Instructional Development is that speech investigators have, at times, forced symbolic interaction to fit single variable designs. Research designs which more adequately approach human behavior are multivariate in nature. With complex designs and computer analysis available, the possibility now exists for handling more complicated research problems. This capacity for studying relationships among more variables permits examination of co-acting variables that more fully explain the act of communication.

Past attitude research was questioned in papers presented by Cronkhite and Clevenger at the New Orleans Conference.² Within the last fifteen years attitude shift


has generally been the dependent variable employed in speech-communication research. Attitude change would appear to be a primary tool for measuring the effects of communication. A very real problem of attitude assessment is the restriction to one-dimensional, linear measurements. Other methods of measurement might show equally significant changes related to different theoretical constructs. Examining changes related to various constructs may eventually lead to a better understanding of symbolic interaction. This paper will suggest another method of assessment, an investigation of the image as described by Boulding.3

This study will treat perceived source credibility, ego-involvement, and initial attitude as concomitant variables. The effort of the study is to ascertain the effects and interaction of these variables in the alteration of students' images. This study will attempt to answer two questions: (1) Which of these variables alone and in combination will best predict changes in an image? (2) Can the concept of image be operationalized to provide significant changes in an audience?

CHAPTER I

THEORETICAL AND EXPERIMENTAL BACKGROUND

This chapter will present a theoretical basis for the study. The image and ego-involvement must be treated in some detail because of the limited investigation they have received in communication research. Attitude and perceived source credibility, on the other hand, do not require such detailed attention because both have received extensive investigation.

The Image

Many men have explored the human thought process: Hobbes, Locke, and Dewey to name a few. But these men were generally concerned with how the process works. Perceptual and cognition psychologists, of late, have asked not only how humans think but how people change ideas. Cognitive theorists "...regard the whole problem of cognitive structure as a matter of cognitive elements interconnected together in complex networks."\(^1\) Small elements are added to sets which are related to networks that make the cognitive structure. This systems orientation to thinking states that ideas are formed into categories that have

\(^1\)Walter R. Reitman, **Cognition and Thought** (New York: John Wiley and Sons, 1965), p. 91.
boundaries ("criterial attributes" in the words of Brown\textsuperscript{2}) and relationships. Bruner stresses the idea of categories when he says:

What I am trying to say is that under any condition of perception, what is achieved by the perceiver is the categorization of an object or sensory event in terms of more or less abundant and reliable cues.\textsuperscript{3}

In searching for reasons people change their perception of a given object, Bruner first suggested change may depend on the value an object has; however, in 1966 he wrote "...it becomes apparent that under certain conditions size accentuation is a function not of positive value as such but of degree of personal relevance."\textsuperscript{4} Bruner had concluded that personal relevance directed the perception of individuals more than societal values placed on objects.

Today, an explosion of theoretical constructs about cognition has occurred. Balance, dissonance, congruity, homeostasis and other concepts attempt to explain cognitive process and change. However, a scholar outside the field of psychology has written a book that tries to assimilate the best of all work into one construct. The theoretical

\begin{footnotesize}
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\end{footnotesize}
construct of the image as used in this study is consistent with the concepts of Boulding.5

Perhaps one would rather say my Image of the world. Knowledge has the implication of validity, of truth. What I am talking about is what I believe to be true; my subjective knowledge.6

Boulding asserted that image is subjective knowledge. A person's knowledge is made on the basis of information received. The individual judges all information on a value criterion to see if it is believable. The image is the organization of subjective knowledge into useful units or categories.

Boulding assumed the image to be acquired, not innate, and culture-bound. Images are organic because they grow and change. The human operates like a "through-put" system in that all information received is re-ordered and processed into a different form from that in which it was received.

Man forms his images along several dimensions. Boulding suggested that these dimensions are spatial, temporal, relational, personal, value, emotional, consciousness, clarity, reality, and public or private. Not all of the dimensions are important to every image an individual has; consequently, the dimensions vary among different

5Note that image is the term Boulding uses but should not be confused with traditional "image theory" which Brown so accurately criticizes in Words and Things on pages 82-109.

6Boulding, The Image, pp. 5-6.
images.

According to Boulding a message is information that reaches the images people hold. "The meaning of a message is the change which it produces in the image." 7 When messages reach an image, one of four things may happen. First, a message may not alter the image at all. If no change in the image occurs, then it may be said that the message had no meaning for the individual. The second possible effect of a message is for change to occur in some regular or well-defined way. A regular change in an image will add to the image already held. The third effect of a message upon an image is to clarify a vague image. Here, the boundaries of the image are more clearly defined, but nothing essentially new is added. The fourth effect of messages is a revolutionary change. One does not simply clarify or extend an image, but re-evaluates it totally, and gains a different conceptual frame.

An individual does not necessarily receive all messages sent to him. He selects and filters all messages and parts of messages. One's value dimensions play a large role in selecting what shall be heard and thought about. People tend to reject, if they cannot ignore, any part of a message they evaluate as objectionable.

7Ibid., p. 7.
One use of language is discussion which alters images toward convergence or congruity. This convergence of images can be accomplished with relative ease if the initial distance between the images is not critical. Byrne and Clore have tested a similar idea under the term "consensual validation." They found that people tend to seek out others who will validate their view of reality. If the distance between two images is critical, change would depend on the skill of the communicator and the situation.

"The whole art of persuasion is the art of perceiving the weak spots in the images of others and of prying them apart with well-constructed symbolic messages." 9

In summary, Boulding's theory of the image was the idea that all knowledge is subjective and ordered around various dimensions. The images people hold can be affected by messages so that change occurs. Culture and images are highly dependent on each other. Lastly, behavior of a human depends upon the images he constructs.

Although Boulding did not offer a method for measuring the image, it is possible to construct a measurement. Kelly stated that man views his constructs (sets of ideas or images) in dichotomies. "A person's construction


9Ibid., p. 134.
system is composed of a finite number of dichotomous constructs."\(^{10}\) Kelly further states that:

A person chooses for himself that alternative in a dichotomized construct through which he anticipates the greater possibility for extension and definition of his system.\(^{11}\)

These two assumptions of Kelly's theory lead to the conclusion that an individual's reality can be tested if the appropriate dichotomies are available and choice is allowed.

Osgood, Suci, and Tannenbaum employed bi-polar, adjectival word pairs (dichotomies) to test semantic meaning. Specifically, they used "linguistic encoding as an index of meaning."\(^{12}\) The semantic differential developed by Osgood, Suci, and Tannenbaum served several ends in measuring meaning. (1) It allowed for quantitative methods. (2) It offered a carefully devised sample of alternative responses. (3) The choice was elicited from subjects rather than emitted so that verbal fluency was eliminated as a variable. Brown also used bi-polar adjectives and methods similar to Osgood for measurement and found the methodology useful.\(^{13}\) It would appear that an adaptation of the methods


\(^{11}\) Ibid., p. 64.


developed by Osgood, which are consistent with Kelly's theory, could offer an instrument for measuring images.

**Ego-Involvement**

Although many psychologists use concepts of the ego or self, Sherif and Cantril were the first to present ego in a manner that encouraged experimentation. In a later work Sherif offered a definition of ego which is susceptible to experimental analysis and testing in terms of various interrelations.

Ego or self is a developmental formation (a subsystem) in the psychological make-up of the individual consisting of interrelated attitudes which are acquired in relation to his own body, to objects, family, persons, groups, social values, and institutions, and which define and regulate situations.

The ego is an acquired set of attitudes toward that which the human has internalized. A child begins with all rules of conduct being imposed on him from an external source. As the child grows and finds the rules to be useful, he internalizes them. These internalized attitudes function as motivating forces from within the person. Sherif called such internalized motivating forces ego-attitudes.

"An individual is ego-involved when one or more ego-attitudes participate as factors in determining his

---


experience and behavior." Ego-involved activity is goal
directed. A person's reactions cannot be neutral or
haphazard when he is ego-involved. Behaviors of perceiving,
judging, and remembering are heavily influenced by the
individual's self (ego).

Ego-involved activity reveals heightened selectivity
and increased effectiveness of the psychological functioning
of the individual. It may be said that consistency is the
outcome of the psychological processes concentrating on the
relevant aspects of a stimulus field.

Sherif, Sherif, and Nebergall found that peoples'
judgments of messages in the 1960 presidential campaign
were the function of the degree of the person's involvement
with a political candidate. Moreover, the degree of ego-
involvement in social, religious, moral, and economic
concerns affected the way the individual evaluated communi-
cations and voted. They found that highly involved persons
had greater latitudes of rejection than lowly involved
persons. The stronger a communication aimed at
challenging or contradicting the highly involved self
picture, the more persistent the individual was in trying

16 Ibid., p. 582.

17 Carolyn W. Sherif, Muzaffer Sherif, and Roger E.
Nebergall, Attitude and Attitude Change (Philadelphia:

18 Ibid., pp. 18-59.
to restore stability.

Kenneth Sereno has advocated and conducted research in ego-involvement as an explanation of attitude change. He offered a basic discussion of ego-involvement and called for multi-variable research in attitude change with an ego-involvement approach. Sereno's research confirmed some of the Sherif findings; however, his emphasis was on attitude change with ego-involvement as a control variable. Although the concept of ego-involvement has been recognized by several speech investigators as a variable, it has received slight treatment as a variable in speech research.

Initial Attitude

As was noted in the introduction, attitude has received extensive treatment in speech research. Attitude shift is the basic criterion for the measurement of communication effects in most recent studies in persuasion.

A measure of attitude may be used to assess an individual's "predisposition" toward a stimulus without concern for how the attitude may change after a message. Sherif stated that it is the interrelatedness of several


objects in the situation which helps determine how an individual will change. Not only involvement with a topic but a disposition toward that topic must be ascertained in order to evaluate or predict change.

In a survey of the literature, Cronkhite found that early investigators thought that an extreme initial attitude meant that an individual would resist change.\(^{21}\) However, Cronkhite stressed that in light of recent findings, initial attitude alone does not necessarily account for change or lack of change. Initial attitude must be evaluated in terms of the person's involvement with the issue.

**Source Credibility**

Source credibility (often called prestige or ethos) has been widely investigated as a variable in persuasion. Andersen and Clevenger summarized most of the findings through 1962.\(^{22}\) They found that seven different techniques for measuring ethos had been employed: (1) rankings, (2) sociograms, (3) "prestige indexes," (4) linear rating scales, (5) Thurstone type attitudes, (6) Likert attitude technique, and (7) semantic differential scales. The research projects employing semantic differentials

---


generally used only the evaluative dimensions.\textsuperscript{23}

They also found that most experimenters used a "fixed ethos" theory. Fixed ethos assumes that the speaker's ethos holds constant before, during, and after the communication situation. The general procedure under the fixed ethos model is to tell the listener who the person is and what his credits are. Osgood and Tannenbaum's congruity theory suggests that ethos may vary during the act of communication.\textsuperscript{24} The credibility of the speaker, as Aristotle implied, cannot be separated from what he is saying to the extent of justifying a fixed ethos concept.

A research study was conducted by Berlo and Lemert to identify a construct for a credibility measure.\textsuperscript{25} By means of factor analysis on a semantic differential, they found three factors which were reliable. The factors were identified as competence, trustworthiness, and dynamism. They recommended four adjective scales for each factor.

McCroskey used the Likert technique to find factors of ethos.\textsuperscript{26} He identified his factors as authoritativeness.

\textsuperscript{23}\textit{Ibid.}, 74.


and character. The first two factors of Berlo and Lemert's scale appear related to the factors found by McCroskey.

Miller and Hewgill employed the Berlo-Lemert Measure to study the effects of nonfluency on source credibility.\textsuperscript{27} They found that an increase in nonfluency decreased the source credibility score of a speaker. Sereno and Hawkins replicated the study but also measured attitude toward the speech topic.\textsuperscript{28} The same results were found in addition to a negative change in attitude toward the topic. These studies have demonstrated that source credibility can be assessed in the audience. The semantic differential technique appears to have the widest acceptance in current research on credibility.

\textsuperscript{27}Gerald R. Miller and Murray A. Hewgill, "The Effects of Variations in Nonfluency on Audience Ratings of Source Credibility," \textit{Quarterly Journal of Speech}, 50 (Feb., 1964), 36-44.

CHAPTER II

DEVELOPMENT OF MEASURING INSTRUMENTS

For purposes of this study, a measuring instrument was developed for each variable of the experiment. A copy of each measuring instrument is to be found in Appendix I. The measurements of the students' images represented the dependent variable. The concomitant variables were initial attitude, ego-involvement, and perceived source credibility. Each of the concomitant variables was assessed by an instrument developed for the purpose.

The Image Measure

The image measure was constructed of 74 word pairs. The word pairs were selected from a longer test form used by Douglas in measuring the image of political candidates. The original instrument contained 148 word pairs. These word pairs had been derived from an extensive list accumulated from previous measurement studies in verbal association, meaning, and source credibility.

The present study utilized word pairs that appeared to have relevance for judging an organization or institution. The selection was also guided by an attempt to represent

the appropriate dimensions of the image that Boulding suggested. The particular dimensions of interest were personal, value, emotional, relational, and clarity. Dimensions, such as spatial and temporal, did not seem highly relevant to the topic of investigation.

The polarities of the word pairs were randomized by a table of random numbers so that the effect of one word appearing first would be minimal. The sequence of 74 pairs on the test form were also determined by means of a table of random numbers to reduce any ordering effects.

The idea upon which the image measure was constructed was that images cannot be measured on a single linear scale. An image may contain several subsets or categories of conceptualization. For instance, one does not conceive of the Black Student Union only in terms of a social value context; rather, the image one holds of the Black Student Union is likely made of several different dimensions concerned with such abstracts as its members, social values, credibility, or impact of its methods. The image measure of this study attempted to provide enough words that several of the students' categories (to be referred to as factors throughout the study) could be drawn from their responses. The students could select any one of four alternatives for each word pair (i.e. A. unethical, B. ethical, C. neither, D. both).

The pretest image measure was submitted to factor
analysis. The computer program chosen for the analysis was the General Factor Analysis (BMD03M). This program performs a principal component solution and an orthogonal rotation of the factor matrix.3

Responses were converted to a directional scale for factor analysis. The decision as to which pole of a word pair is positive and which is negative was made in early studies.4 A positive adjective (i.e. ethical) received a value of 3. The "neither" or "both" responses received a value of 2. The negative adjective (i.e. unethical) received a value of 1. The four option response allows the student to select the appropriate response if he perceives a dichotomy in the particular pair. However, if the student does not perceive a dichotomy, he is offered other options. The "neither" and "both" clarify the middle position of most scales by offering choices that reflect an individual's perception of too much information to make a choice (both) or too little information to make a choice (neither).

The factor analysis identified six strong factors. It was possible to identify more factors, but the correlations were too low for consideration. Table 1 lists the strong word pairs in each factor and their correlation with


3Ibid., p. 169.

4Douglas, "Students' Images of Presidential Candidates."
the factor. The word pairs starred were used to score the students' answer sheets on the six factors. The pairs for scoring were chosen for a high correlation with the factor and low correlation with the other factors. This selection was made in an attempt to keep each factor score as "pure" as possible.

**TABLE 1**

**FACTORS OF THE IMAGE**

<table>
<thead>
<tr>
<th>FACTOR 1</th>
<th>FACTOR 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>.72 good-bad *</td>
<td>.67 productive-unproductive *</td>
</tr>
<tr>
<td>.68 right-wrong *</td>
<td>.54 successful-failing</td>
</tr>
<tr>
<td>.66 trustworthy-untrustworthy *</td>
<td>.52 solemn-humorous *</td>
</tr>
<tr>
<td>.65 moral-immoral</td>
<td>.51 tart-flat *</td>
</tr>
<tr>
<td>.57 patriotic-unpatriotic</td>
<td>.50 persuasive-unpersuasive</td>
</tr>
<tr>
<td>.56 meaningful-absurd</td>
<td>-.50 confident-uncertain *</td>
</tr>
<tr>
<td>.55 ethical-unethical *</td>
<td>.50 serious-gay</td>
</tr>
<tr>
<td></td>
<td>.50 deep-shallow</td>
</tr>
<tr>
<td></td>
<td>.50 sincere-insincere</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FACTOR 3</th>
<th>FACTOR 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>.60 cautious-rash *</td>
<td>.54 polished-plain *</td>
</tr>
<tr>
<td>.55 friendly-hostile *</td>
<td>.51 steady-erratic *</td>
</tr>
<tr>
<td>.54 smooth-rough *</td>
<td>-.49 idealistic-practical</td>
</tr>
<tr>
<td>.51 refined-coarse *</td>
<td>.45 major-minor *</td>
</tr>
<tr>
<td>.50 reverent-irreverent</td>
<td>.40 logical-emotional</td>
</tr>
<tr>
<td>.46 tolerant-unbending</td>
<td></td>
</tr>
<tr>
<td>.46 soothing-unnerving</td>
<td></td>
</tr>
<tr>
<td>.43 sweet-sour</td>
<td></td>
</tr>
<tr>
<td>.43 musical-noisy</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FACTOR 5</th>
<th>FACTOR 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>.45 communicative-contained *</td>
<td>.56 turbulent-placid *</td>
</tr>
<tr>
<td>.42 open-hidden *</td>
<td>.44 sharp-rounded *</td>
</tr>
<tr>
<td>.40 determined-undecided</td>
<td>.37 complex-simple *</td>
</tr>
<tr>
<td>.35 aggressive-defensive *</td>
<td>.30 powerful-impotent</td>
</tr>
<tr>
<td>.31 radical-reactionary</td>
<td></td>
</tr>
<tr>
<td>.30 driving-easygoing</td>
<td></td>
</tr>
</tbody>
</table>
Each factor was considered as a separate measure of some aspect of the image. The factors were judged to be separate after analysis of the correlation of pretest scores on the six factors. Table 2 presents the correlation matrix of the six factors. Consequently, the study contains six separate dependent variables to be tested for each of the hypotheses of the study.

**TABLE 2**

**CORRELATION MATRIX OF THE SIX PRETEST FACTORS**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>--</td>
<td>.25</td>
<td>.40</td>
<td>.38</td>
<td>.07</td>
<td>.10</td>
</tr>
<tr>
<td>2</td>
<td>.25</td>
<td>--</td>
<td>.05</td>
<td>.09</td>
<td>-.08</td>
<td>.26</td>
</tr>
<tr>
<td>3</td>
<td>.40</td>
<td>.05</td>
<td>--</td>
<td>.24</td>
<td>.03</td>
<td>.25</td>
</tr>
<tr>
<td>4</td>
<td>.38</td>
<td>.09</td>
<td>.24</td>
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<td>.19</td>
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<td>6</td>
<td>.10</td>
<td>.26</td>
<td>.25</td>
<td>.09</td>
<td>.14</td>
<td>--</td>
</tr>
</tbody>
</table>

The Initial Attitude Measure

The initial attitude measure was modeled after Sherif's nine-statement attitude scale. The Sherif method of attitude assessment was selected over more standard techniques because of its dual function in assessing ego-involvement. Statements were written that ranged from extremely positive to extremely negative. The order of the statements was validated by having 63 students enrolled in

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4Sherif, Sherif, and Nebergall, *Attitude and Attitude Change*, p. 28.
Speech 201 (Introduction to Speech) during the Fall Quarter of 1968 make suggestions about wording and arrangement. The statements were arranged in order and assigned letters. Letters were assigned in an attempt to eliminate association with a numerical value.

Students were instructed to check the one statement that best represented their feelings. Because no assumption was made about the size of intervals between the statements, scoring was accomplished by means of collapsing statements together. The three most positive scales represented a positive attitude, the three middle statements represented a neutral attitude, and the three most negative scales represented a negative attitude. The result of the scoring was that students' attitudes were identified as being positive, neutral, or negative.

**The Ego-Involvement Measure**

Ego-involvement was measured by the Sherif method of the latitude of rejection. The nine statements used for attitude were employed to measure ego-involvement. After the student indicated the statement he supported most (attitude measure), he circled all statements with which he disagreed.

Secondly, the student circled whether he would join, support, not support, or avoid the Black Student Union if he were a black student. Black students received the same statement without the clause, "If I were a black
student." This second step is a slight departure from the latitude of rejection. Sherif and Sherif asserted that the reference group for individuals is important to their involvement and attitude on a given issue. This second step encouraged the student to express his possible role relationship to a reference group. The addition of this second step was an attempt to make the instrument measuring ego-involvement more accurate by including the concept of a reference group.

Each student's ego-involvement score was computed on the basis of one point for each statement circled with which he disagreed. Moreover, the student received two points for circling "join" or "avoid" and one point for circling either "support" or "not support." No attempt was made to give weight to either part of the measure. The ego-involvement scores could range from one to ten. A score of one to five was considered lowly ego-involved, and a score of six to ten was considered highly ego-involved.

**Perceived Source Credibility**

The perceived source credibility measure was composed of 17 word pairs on five point equal-appearing interval scales. The word pairs were selected from the results of studying political candidates' images. The word pairs

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6 Douglas, "Students' Images of Presidential Candidates."
were selected from two separate factors found in that study. The two factors were identified as "ethical" and "impact." The word pairs were assigned order by means of a table of random numbers. The polarity of the pairs was randomly arranged.

The students' responses were submitted to a factor analysis. The factor analysis furnished data for a test of the speaker's credibility by providing the three strongest word pairs in the first factor. The word pairs and their correlations in the first factor appear in Table 3.

### TABLE 3

**FACTOR ONE FOR PERCEIVED SOURCE CREDIBILITY**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Word Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>.67</td>
<td>reliable-unreliable *</td>
</tr>
<tr>
<td>.65</td>
<td>honest-dishonest *</td>
</tr>
<tr>
<td>.61</td>
<td>frank-devious *</td>
</tr>
<tr>
<td>.60</td>
<td>convincing-unconvincing</td>
</tr>
<tr>
<td>.59</td>
<td>fair-unfair</td>
</tr>
<tr>
<td>.57</td>
<td>definite-indefinite</td>
</tr>
<tr>
<td>.55</td>
<td>true-false</td>
</tr>
<tr>
<td>.40</td>
<td>relevant-irrelevant</td>
</tr>
<tr>
<td>.38</td>
<td>democratic-autocratic</td>
</tr>
<tr>
<td>.37</td>
<td>rising-falling</td>
</tr>
<tr>
<td>.34</td>
<td>real-phony</td>
</tr>
<tr>
<td>.31</td>
<td>interesting-boring</td>
</tr>
<tr>
<td>.20</td>
<td>bright-dull</td>
</tr>
<tr>
<td>.17</td>
<td>literate-illiterate</td>
</tr>
<tr>
<td>.14</td>
<td>pleasurable-painful</td>
</tr>
<tr>
<td>.07</td>
<td>positive-negative</td>
</tr>
<tr>
<td>.01</td>
<td>militant-non-militant</td>
</tr>
</tbody>
</table>

* the word pairs used for the test of perceived source credibility

---

Students' scores were computed by assigning a value of one to the negative word and a value of five to the positive word, plus values of two, three, and four to the spaces between the polar adjectives. The values were then summed for the three word pairs. Scores could range from three to fifteen points. Students who scored between three to nine points were considered as perceiving the source as lowly credible. Students who scored between ten to fifteen points were considered as perceiving the source as highly credible.
CHAPTER III

EXPERIMENTAL SITUATION

This section of the study will discuss information and procedures which are pertinent to the conditions of the experiment. Among those elements considered here are the choice of a stimulus symbol for measurement, the experimental stimulus, the subjects, and the experimental procedures.

The Stimulus Symbol

The Black Student Union at Ohio State University was chosen as the stimulus symbol. The students' images of the Black Student Union was the focus for the present study.

The Black Student Union was chosen because of its controversial and visible role on campus. Members of the Black Student Union had been involved in the takeover of the Administration Building during the Spring Quarter of 1968. Thirty-four black students were indicted on various counts; however, their trial had not yet been held. Another controversial matter on the campus was open housing. The members of the Black Student Union had campaigned to eliminate discrimination in segregated dormitory areas and off-campus apartment houses.

Members of the Black Student Union had been a force
in administrative and academic policy-making decisions. Many humanities' departments were beginning to offer courses related to black studies. The administration was attempting to recruit black professors. Black students served on several administrative committees. The University had an advisor for black student matters.

Because of the Black Student Union's involvement and often controversial role in campus affairs, it seemed apparent that varying degrees of attitude and concern existed toward the Black Student Union. Students in speech classes had debated the value of such an organization. The investigator felt that the Black Student Union could be a stimulus symbol to which reactions would vary greatly.

**Experimental Stimulus**

A speech delivered by a black student was considered the experimental stimulus. The speech was not of the typical informative or persuasive model. It was a position paper on the Black Student Union. (A copy of the speech may be found in Appendix II.) The position paper was written by one of the organization's public relations officers. The paper explained the situation that led to the "teach in" held in the Administration Building and the subsequent legal action by the University officials. The paper employed some strongly loaded language, e.g. "legal lynching." The position paper did not explicitly call for the audience to take a stand on the issue.
The speech was delivered by a member of the Black Student Union. Because of this member's behind-the-scenes role, he was not generally known to the students. An unknown Black Student Union member delivered the speech so that his involvement would be high but students would not know his role in connection with the organization.

The speaker wore a dark suit, white shirt, and tie. His hair was cut in a moderate "Afro" style. The appearance of the speaker gave this investigator the feeling of a person concerned about the cause but not "radical."

His delivery was not smooth, halting at times, but appeared quite "natural." He read from a manuscript, noting that the speech was a position paper of the Black Student Union. The speech took 6 minutes and 15 seconds.

Because of the necessity to hold the speech constant for many different class sessions, the decision was made to record the speech on videotape. The videotape unit used was a black and white, portable Concord. The recording was done against a pale green background. A lavalier microphone was used so that the speaker was free to move without changing the distance from his mouth to the microphone.

The validity of the experimental stimulus is located in the fact that the Black Student Union created the stimulus. The Black Student Union cooperated in writing a position paper for this situation; the position paper was
released to the press after the experiment. The paper represented the major concern of the Black Student Union at that time. To say that the speech was an excellent performance is not possible; however, the speech was an authentic representation of the Black Student Union.

**Experimental Subjects**

The subjects for the experiment were students enrolled in Speech 105 (Principles of Effective Speaking) at The Ohio State University in the Winter Quarter, 1969. The total number of students tested was 211; however, 14 students did not complete all the measuring instruments which reduced the final total to 197 students. Because the sample was not drawn randomly from the student population of the University, descriptive data about the subjects are presented in Table 4, and attitude data on the students are offered in Table 5. The descriptive and attitude data were collected during the first week of the quarter in connection with questionnaire and attitude surveys for class use. Both tables present the information in percentages so that comparisons between these experimental subjects and other groups can be more easily accomplished. These data provide the basis for judging the validity of the results for other samples of student populations.
TABLE 4

DESCRIPTION OF EXPERIMENTAL SAMPLE BY PERCENTAGES

1. Sex: Male-66.8 Female-33.2
2. Age: 18 or under-20.2 19-23.9 20-25.2 21-14.3 22 or over-16.4
3. Class Rank: Freshman-34.5 Sophomore-23.1 Junior-24.3 Senior-17.3 Other-.8
4. Past Residence: Ohio only-70.2 Ohio and other states-20.6 Out of state-6.7 Foreign-2.5
5. Read off campus newspaper: Regularly-28.6 Frequently-25.6 Occasionally-37.8 None-8.0
6. Read campus newspaper: Regularly-58.8 Frequently-25.7 Occasionally-12.6 None-2.5
7. Political Attitude: Liberal-32.8 Moderate-48.7 Conservative-18.5
8. Religious Attitude: Conservative-20.2 Moderate-36.5 Liberal-43.3
9. Geographical Region: East-16.4 South-5.0 Midwest-75.7 West-2.1
10. Family income: below $5,000-8.0 $5,000-10,000-34.9 $10,000-15,000-30.6 $15,000-20,000-13.1 over $20,000-13.4
11. Of the students tested only 3.8 percent were Negro

TABLE 5

RELATED ATTITUDES OF SUBJECTS

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>FAVOR</th>
<th>OPPOSE</th>
<th>NO ATTITUDE</th>
<th>MIXED FEELING</th>
</tr>
</thead>
<tbody>
<tr>
<td>law and order</td>
<td>83</td>
<td>2</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>George Wallace</td>
<td>8</td>
<td>72</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>black power</td>
<td>11</td>
<td>56</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>bussing students</td>
<td>13</td>
<td>59</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>integrated neighborhoods</td>
<td>61</td>
<td>10</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>ghetto riots</td>
<td>3</td>
<td>77</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>campus protest</td>
<td>18</td>
<td>44</td>
<td>7</td>
<td>31</td>
</tr>
</tbody>
</table>

Sequence of the Experiment

The experiment was conducted on February 24 and 25.
1969. The students were in eleven sections of Speech 105; each section had an enrollment of 18-25 students. Prior to the experimental period, students were told that one class session would be used to develop tests for speeches.

To eliminate the ordering effect of measuring instruments, the presentation of tests were varied in class sections. In Table 6; A is the image pretest, B is ego-involvement and initial attitude, C is the image posttest, and D is the perceived source credibility test. The instructions for each test were read aloud to the students.

**TABLE 6**

ORDER OF EXPERIMENTAL SITUATION

<table>
<thead>
<tr>
<th>ORDER</th>
<th>DATE</th>
<th>SECTION (class hr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB speech CD</td>
<td>Feb. 24</td>
<td>12, 2</td>
</tr>
<tr>
<td>AB speech CD</td>
<td>Feb. 25</td>
<td>12</td>
</tr>
<tr>
<td>AB speech DC</td>
<td>Feb. 24</td>
<td>4</td>
</tr>
<tr>
<td>AB speech DC</td>
<td>Feb. 25</td>
<td>3</td>
</tr>
<tr>
<td>BA speech CD</td>
<td>Feb. 24</td>
<td>9, 10, 1</td>
</tr>
<tr>
<td>BA speech DC</td>
<td>Feb. 24</td>
<td>8, 3</td>
</tr>
<tr>
<td>BA speech DC</td>
<td>Feb. 25</td>
<td>7</td>
</tr>
</tbody>
</table>

The speaker was introduced as a student at Ohio State University but not as a member of any Speech 105 section. The speaker was not identified by name or association with any particular group or activity.
CHAPTER IV
STATISTICAL DESIGN AND ANALYSIS

Hypotheses

From the investigation of theoretical material and experimental research, the investigator formulated seven basic hypotheses. Many more arrangements of the variables are possible so that other hypotheses could be formed; however, the seven listed below seem to be most important in light of the current state of research. All the hypotheses concern students' changes of images. It must be remembered that the factor analysis of images yielded six separate factors. The seven hypotheses were tested on each factor score of the images.

1. Students scoring low on ego-involvement will change in a positive direction more than students scoring high on ego-involvement.

2. Students with a neutral (middle-of-the-road) attitude will change in a positive direction more than students who favor or oppose.

3. Students who perceive the speaker as highly credible will change in a positive direction more than students who perceive the speaker as lowly credible.

4. Students scoring low on ego-involvement and
holding a neutral attitude will change in a positive direction more than students scoring high on ego-involvement and holding attitudes which favor or oppose the object measured.

5. Students scoring low on ego-involvement and who perceive the speaker as highly credible will change in a positive direction more than students scoring high on ego-involvement and who perceive the speaker as lowly credible.

6. Students who hold a neutral attitude and perceive the speaker as highly credible will change in a positive direction more than students who hold positive or negative attitudes and perceive the speaker as lowly credible.

7. Students scoring low on ego-involvement, holding a neutral attitude, and perceiving the speaker as highly credible will change in a positive direction more than students scoring high on ego-involvement, holding a positive or negative attitude, and perceiving the speaker as lowly credible.

The Factorial Design

In order to test the hypotheses, a $2 \times 2 \times 3$ factorial design was employed. Table 7 demonstrates the relation of the concomitant variables to the dependent variables. It should be noted that the design is repeated for each of the six dependent variables.
### TABLE 7

**EXPERIMENTAL DESIGN**

<table>
<thead>
<tr>
<th>CONCOMITANT VARIABLES</th>
<th>DEPENDENT VARIABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credibility</strong></td>
<td><strong>Involvement</strong></td>
</tr>
<tr>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Statistical Analysis**

Because the class sections were used intact, analysis of covariance was employed to allow statistical control where direct control of external variables was not possible. Winer states two principal functions of a covariance method: "(1) to increase the precision of the experiment and (2) to remove potential sources of bias in the experiment..."1 Analysis of covariance is a method generalized from the analysis of variance. Consequently, assumptions

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for analysis of variance must be met as well as additional assumptions of the covariance statistic. These assumptions are necessary for the analysis of variance: (1) The distributions of the variables are normal. (2) Homogeneity of variance should exist. (3) The effects of various factors are additive. Two additional assumptions are required of the analysis of covariance. (1) Regressions are homogeneous. (2) Regression equations must be fitted to linearity. It should be noted that $F$ tests are robust and can allow small departures from normality; however, if the assumptions are severely violated, $F$ tests will appear significant when they are not.

The main effects and interactions of the concomitant variables were tested by means of a Multivariate Analysis of Variance (MANOVA). This computer program performs analyses of variance and covariance for unequal cells. The program checks the assumptions of normality and homogeneity and will correct the computation in accordance with the assumptions.

When significant $F$ values were obtained, a $t$ test for the difference between two means for correlated samples was employed. The reason for this test of significance

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was to determine which categories of subjects changed significantly from pretest to posttest. The .05 level of significance was accepted as the critical level for all statistical tests.
CHAPTER V

RESULTS

Throughout this chapter, A will represent source credibility, B will represent ego-involvement, and C will represent initial attitude.

Table 8 shows the analysis of variance for Factor 1.

TABLE 8

ANALYSIS OF VARIANCE FOR FACTOR 1

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SUMS OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARES</th>
<th>F VALUE</th>
<th>P LESS THAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITHIN CELLS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>40.244</td>
<td>1</td>
<td>40.244</td>
<td>24.543</td>
<td>.001*</td>
</tr>
<tr>
<td>B</td>
<td>0.932</td>
<td>1</td>
<td>0.932</td>
<td>0.568</td>
<td>.452</td>
</tr>
<tr>
<td>C</td>
<td>10.694</td>
<td>2</td>
<td>5.347</td>
<td>3.261</td>
<td>.041*</td>
</tr>
<tr>
<td>AB</td>
<td>0.036</td>
<td>1</td>
<td>0.036</td>
<td>0.022</td>
<td>.882</td>
</tr>
<tr>
<td>AC</td>
<td>11.284</td>
<td>2</td>
<td>5.642</td>
<td>3.441</td>
<td>.034*</td>
</tr>
<tr>
<td>BC</td>
<td>2.990</td>
<td>2</td>
<td>1.495</td>
<td>0.912</td>
<td>.404</td>
</tr>
<tr>
<td>ABC</td>
<td>2.741</td>
<td>2</td>
<td>1.371</td>
<td>0.836</td>
<td>.435</td>
</tr>
</tbody>
</table>

*significant beyond the .05 level of confidence; the asterisk will be used on all subsequent tables for the same purpose.

Table 9 presents the significant findings of mean differences from pretest to posttest on Factor 1.

Although the variance in the main effect of initial attitude (C) was significant, no significant difference
was found within the categories of initial attitude from pretest to posttest of Factor 1.

**TABLE 9**

**SIGNIFICANT t TESTS FOR FACTOR 1**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>t VALUE</th>
<th>df</th>
<th>DIRECTION OF CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A high</td>
<td>2.37</td>
<td>112</td>
<td>positive *</td>
</tr>
<tr>
<td>A low</td>
<td>2.26</td>
<td>83</td>
<td>negative *</td>
</tr>
<tr>
<td>A high C negative</td>
<td>2.77</td>
<td>10</td>
<td>positive *</td>
</tr>
<tr>
<td>A low C negative</td>
<td>2.77</td>
<td>16</td>
<td>negative *</td>
</tr>
</tbody>
</table>

Table 10 demonstrates that no significant variances were found in Factor 2.

**TABLE 10**

**ANALYSIS OF VARIANCE FOR FACTOR 2**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SUMS OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARES</th>
<th>F VALUE</th>
<th>P LESS THAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITHIN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CELLS</td>
<td>323.069</td>
<td>184</td>
<td>1.756</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>A</td>
<td>0.768</td>
<td>1</td>
<td>0.768</td>
<td>0.437</td>
<td>.509</td>
</tr>
<tr>
<td>B</td>
<td>4.239</td>
<td>1</td>
<td>4.239</td>
<td>2.414</td>
<td>.122</td>
</tr>
<tr>
<td>C</td>
<td>7.346</td>
<td>2</td>
<td>3.673</td>
<td>2.092</td>
<td>.126</td>
</tr>
<tr>
<td>AB</td>
<td>1.273</td>
<td>2</td>
<td>1.273</td>
<td>0.725</td>
<td>.396</td>
</tr>
<tr>
<td>AC</td>
<td>3.556</td>
<td>2</td>
<td>1.778</td>
<td>1.013</td>
<td>.365</td>
</tr>
<tr>
<td>BC</td>
<td>1.097</td>
<td>2</td>
<td>0.548</td>
<td>0.312</td>
<td>.732</td>
</tr>
<tr>
<td>ABC</td>
<td>8.501</td>
<td>2</td>
<td>4.251</td>
<td>2.421</td>
<td>.092</td>
</tr>
</tbody>
</table>

Table 11 illustrates the variance found in Factor 3. It should be noted that only credibility (A) proved significant.

Those students perceiving the source as highly
credible changed significantly ($t = 4.76$ for 112 degrees of freedom) in a positive direction on Factor 3. Students who perceived the source as lowly credible did not change significantly.

**TABLE 11**

**ANALYSIS OF VARIANCE FOR FACTOR 3**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SUMS OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARES</th>
<th>$F$ VALUE</th>
<th>$P$ LESS THAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITHIN CELLS</td>
<td>403.519</td>
<td>184</td>
<td>2.193</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>A</td>
<td>49.221</td>
<td>1</td>
<td>49.221</td>
<td>22.444</td>
<td>.001*</td>
</tr>
<tr>
<td>B</td>
<td>0.293</td>
<td>1</td>
<td>0.293</td>
<td>0.134</td>
<td>.715</td>
</tr>
<tr>
<td>C</td>
<td>10.752</td>
<td>2</td>
<td>5.376</td>
<td>2.451</td>
<td>.089</td>
</tr>
<tr>
<td>AB</td>
<td>8.124</td>
<td>1</td>
<td>8.124</td>
<td>3.705</td>
<td>.056</td>
</tr>
<tr>
<td>AC</td>
<td>4.777</td>
<td>2</td>
<td>2.389</td>
<td>1.089</td>
<td>.336</td>
</tr>
<tr>
<td>BC</td>
<td>6.160</td>
<td>2</td>
<td>3.080</td>
<td>1.404</td>
<td>.248</td>
</tr>
<tr>
<td>ABC</td>
<td>1.392</td>
<td>2</td>
<td>0.696</td>
<td>0.317</td>
<td>.729</td>
</tr>
</tbody>
</table>

The variance found in Factor 4 is illustrated in Table 12. Source credibility showed significant variance.

**TABLE 12**

**ANALYSIS OF VARIANCE FOR FACTOR 4**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SUMS OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARES</th>
<th>$F$ VALUE</th>
<th>$P$ LESS THAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITHIN CELLS</td>
<td>301.057</td>
<td>184</td>
<td>1.636</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>A</td>
<td>14.436</td>
<td>1</td>
<td>14.436</td>
<td>8.823</td>
<td>.003*</td>
</tr>
<tr>
<td>B</td>
<td>4.959</td>
<td>1</td>
<td>4.959</td>
<td>3.031</td>
<td>.083</td>
</tr>
<tr>
<td>C</td>
<td>6.109</td>
<td>2</td>
<td>3.055</td>
<td>1.867</td>
<td>.158</td>
</tr>
<tr>
<td>AB</td>
<td>0.101</td>
<td>1</td>
<td>0.101</td>
<td>0.062</td>
<td>.804</td>
</tr>
<tr>
<td>AC</td>
<td>1.120</td>
<td>2</td>
<td>0.560</td>
<td>0.342</td>
<td>.711</td>
</tr>
<tr>
<td>BC</td>
<td>2.246</td>
<td>2</td>
<td>1.123</td>
<td>0.686</td>
<td>.505</td>
</tr>
<tr>
<td>ABC</td>
<td>8.645</td>
<td>2</td>
<td>4.323</td>
<td>2.642</td>
<td>.074</td>
</tr>
</tbody>
</table>
Neither high or low perceived source credibility yielded a significant difference between the pretest-posttest means on Factor 4.

No significant variance was found in Factor 5.

TABLE 13

ANALYSIS OF VARIANCE FOR FACTOR 5

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SUMS OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARES</th>
<th>F VALUE</th>
<th>p LESS THAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITHIN CELLS</td>
<td>353.505</td>
<td>184</td>
<td>1.921</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>A</td>
<td>1.968</td>
<td>1</td>
<td>1.968</td>
<td>1.024</td>
<td>.313</td>
</tr>
<tr>
<td>B</td>
<td>0.222</td>
<td>1</td>
<td>0.222</td>
<td>0.115</td>
<td>.735</td>
</tr>
<tr>
<td>C</td>
<td>7.325</td>
<td>2</td>
<td>3.662</td>
<td>1.906</td>
<td>.152</td>
</tr>
<tr>
<td>AB</td>
<td>0.791</td>
<td>1</td>
<td>0.791</td>
<td>0.412</td>
<td>.522</td>
</tr>
<tr>
<td>AC</td>
<td>5.962</td>
<td>2</td>
<td>2.981</td>
<td>1.552</td>
<td>.215</td>
</tr>
<tr>
<td>BC</td>
<td>0.547</td>
<td>2</td>
<td>0.273</td>
<td>0.142</td>
<td>.868</td>
</tr>
<tr>
<td>ABC</td>
<td>3.286</td>
<td>2</td>
<td>1.643</td>
<td>0.855</td>
<td>.427</td>
</tr>
</tbody>
</table>

Factor 6, as shown in Table 14, exhibited significant variance in the main effect of ego-involvement.

TABLE 14

ANALYSIS OF VARIANCE FOR FACTOR 6

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SUMS OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARES</th>
<th>F VALUE</th>
<th>p LESS THAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITHIN CELLS</td>
<td>254.316</td>
<td>184</td>
<td>1.382</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>A</td>
<td>0.868</td>
<td>1</td>
<td>0.868</td>
<td>0.628</td>
<td>.429</td>
</tr>
<tr>
<td>B</td>
<td>8.065</td>
<td>1</td>
<td>8.065</td>
<td>5.835</td>
<td>.017*</td>
</tr>
<tr>
<td>C</td>
<td>0.553</td>
<td>2</td>
<td>0.276</td>
<td>0.200</td>
<td>.819</td>
</tr>
<tr>
<td>AB</td>
<td>5.242</td>
<td>1</td>
<td>5.242</td>
<td>3.793</td>
<td>.053</td>
</tr>
<tr>
<td>AC</td>
<td>0.125</td>
<td>2</td>
<td>0.062</td>
<td>0.045</td>
<td>.956</td>
</tr>
<tr>
<td>BC</td>
<td>3.556</td>
<td>2</td>
<td>1.778</td>
<td>1.287</td>
<td>.279</td>
</tr>
<tr>
<td>ABC</td>
<td>0.861</td>
<td>2</td>
<td>0.431</td>
<td>0.312</td>
<td>.733</td>
</tr>
</tbody>
</table>
Students scoring low on ego-involvement changed in a negative direction significantly ($t = 2.33$ for 83 degrees of freedom) on Factor 6. Students scoring high did not demonstrate significant change.
CHAPTER VI

CONCLUSIONS

Possible Sources of Error

Before conclusions are drawn, a consideration of limitations inherent in the study and its findings are appropriate. A possible source of error in any investigation is experimenter bias. This bias was recognized beforehand and consequently a person who was not associated with the students in Speech 105 administered the experiment. Students were told that their grades were in no way to be affected by their action during the testing period. Students were not asked to put their names on any test materials; for identification purposes, the first answer sheet had a number which was used on all subsequent answer sheets. The lack of strong positive change across students found in the results suggests that experimenter bias contributed little error to the study.

A random sample of the population is generally preferred in order to control sampling error. A random sample of the University population, however, was no more practical or economical for this investigation than for other studies using student subjects. Instead a convenience sample was chosen and statistical controls applied (Refer
to the detailed description of the sample in Chapter III). Assumptions must be made in applying the statistical control of the covariance method. As was noted in the section on statistical analysis, the F test for variance-covariance is robust and will allow some deviation from the assumptions. No evidence was found in the computation which suggested that marked violations of the assumptions had occurred.

It should be noted that the study was conducted to investigate students' images on an organization within the campus community. The conclusions must be interpreted in terms of the limitations of studying a particular population. It would be unwarranted to infer that the findings of this study apply to all communicative acts or populations not sampled.

**Conclusions**

**Discussion of Main Effects**

The first hypothesis of this study stating that students who scored low on ego-involvement would change their images of the Black Student Union in a positive direction was not confirmed. On only one factor (Factor 6) was ego-involvement a significant main effect, and on this factor the opposite effect from that anticipated was obtained: students who scored low in ego-involvement

---

1The reader should note that positive and negative change are quantitative terms to mean expected and not expected direction of change.
changed in the negative direction. In examining the content of Factor 6, a possible reason for the contradiction of the hypothesis is evident. The factor contained the terms, "turbulent-placid, sharp-rounded, and complex-simple." The negative word is listed second in these pairs. Students who are lowly involved probably take note of the Black Student Union only when the BSU is highly visible (demonstrating). Consequently, viewing a black student who attempted to present the BSU position through a conventional means of discourse could alter their image away from a perspective of turbulence, sharpness, and complexity.

The second hypothesis -- students with a neutral initial attitude will change in a positive direction more than others -- was not confirmed in any factor. Significant variance on initial attitude did occur in Factor 1, but the variance was scattered over the three scales. No significant differences with t tests could be found between the pretest and posttest mean scores of students with neutral, positive, or negative initial attitudes.

Students who perceived the source as highly credible would change in a positive direction was the third hypothesis. This hypothesis was confirmed in Factors 1 and 3. In Factor 1 ("good-bad, right-wrong, trustworthy-untrustworthy, and ethical-unethical") students who perceived the source as highly credible changed in a positive
direction. Credibility was such a strong predictor of change in Factor 1 that students who perceived the source as lowly credible changed their image significantly in a negative direction. The word pairs of this factor may be seen as an organization's credibility. The content of the factor is such that if a speaker is viewed as a representative of the organization, the speaker's credibility should act as a predictor of change in this image factor of the organization.

In Factor 3 ("cautious-rash, friendly-hostile, smooth-rough, and refined-coarse") significant change of the image in a positive direction was found for students who perceived the source as highly credible. Perceiving the source as highly credible had the ability to initiate change in the students who viewed the BSU as "cautious, friendly, smooth, and refined." However, the students who perceived the source as lowly credible were resistant to change in either direction on this factor.

Perceived source credibility also had significant variance in Factor 4 ("polished-plain, steady-erratic, and major-minor"), but significant change in the pretests to posttests could not be established. Perceived source credibility was found to be an extremely important concomitant variable. If the analysis of the six factors were considered replications of a single experiment, then credibility would be found to be the most reliable predictor
Discussion of the Interactive Effects

In hypotheses four through seven, which concern interactions of the concomitant variables, only the interaction of the sixth hypothesis, source credibility and initial attitude, was found significant in Factor 1. The hypothesis stated that students who held neutral initial attitudes and perceived the source as highly credible would change in a positive direction more than other students. This hypothesis was not confirmed; however, the interaction of initial attitude and perceived source credibility did produce two significant changes in Factor 1. Students with a negative initial attitude changed significantly depending on their perception of source credibility. If they perceived the source as highly credible, they changed in a positive direction; conversely, if they perceived the source as lowly credible, they changed in a negative direction. Factor 1 appears to be a measure of an organization's credibility. Students with a negative attitude who perceive the source as lowly credible have their images of the BSU's low credibility reinforced to such a degree that they add to their images a stronger view of low organizational credibility. If the student perceives the source as highly credible, although he holds an initially negative attitude, he changes his images significantly toward a view of the Black Student Union as better,
more right, more trustworthy, and more ethical than he originally believed it to be.

No interactive effects were found in Factors 2 through 6. None of the hypotheses for interactions could be confirmed in these factors.

It is important to note that Factors 2 and 5 were resistant to change. Factor 2 contained "productive-unproductive, solemn-humorous, tart-flat, and uncertain-confident." Factor 5 included "communicative-contained, open-hidden, and aggressive-defensive." In accordance with Boulding's theory, either one of two explanations could account for the resistance to change in Factors 2 and 5. The images held by students on these two factors might be so strong that a single communicative act could not change them significantly. Secondly, these factors may have a degree of clarity for the students which the speaker could not alter.

From the variety of results that were obtained in different factors, it appears that the factors were separate and independent. Each factor seems to assess a different dimension of students' images. If one concomitant variable had had the same effect on all factors, it could be argued that the factors were not different or that the use of several variables was inappropriate. However, since the variance that occurred could not be traced to a single source, the measurement of the image as a multi-dimensional
concept proved useful.

**Implications for Further Research**

Several trends should be noted in the results that indicate more research would be fruitful. Ego-involvement was near the critical level for significance on Factors 2 and 4. Initial attitude was near significant variance on Factors 2 and 3. The interaction of source credibility and ego-involvement were extremely close to being a significant contributor to the source of variance of Factors 3 and 6 ($p = .056$ on Factor 3 and $p = .053$ on Factor 6).

The interaction of source credibility, ego-involvement, and initial attitude was near a significant variance on Factors 2 and 4. In eight different instances a variable or interaction of variables were near statistical significance. These instances are important for the suggestion that more variance among the variables could exist.

Two basic approaches may be taken in order to answer the question of how much variance can actually exist. First, the measures of the concomitant variables might be made more sensitive. The measures of initial attitude and ego-involvement may lack sensitivity. Both of these measures are based on ordinal rather than interval data. Interval data would allow a more flexible use of sophisticated statistical analysis. A Thurstone-type measure of attitude that is based on an assumption of psychophysical scaling is more defensible in its results. As yet only two
methods for the measurement of ego-involvement have been developed: (1) latitude of rejection and (2) "own categories" sorting procedure. A different method of assessing ego-involvement which would use a latitude of rejection (based on interval data) and reference group measurement with weights being assigned might prove useful. The variable of perceived source credibility appeared sensitive because all measures of variance related to it were either statistically significant or demonstrated very little variance. A replication of the study employing new measuring techniques might be useful in establishing whether the trends are significant or not.

A second way of approaching the problem of whether the trends exist as possible sources of variance is in adjustment of the measure of image. The particular form used in this study is aimed at flexible use in analyzing data in more than one way. If a study is interested in only the direction of change, it might serve a useful purpose to construct a test that resembles the Semantic Differential. Providing seven scale intervals, as opposed to three in the present study, could offer greater opportunity for change to appear. Further testing of various scaling values is needed to determine the most reliable scale.

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1 Sherif, Sherif, and Nebergall, Attitude and Attitude Change.
More research is needed on the image. Comparative image studies in different populations could be useful in examining the differences between people. Most speech investigators would accept the idea that the students' images of the Black Student Union (or many visible campus organizations) is different than the townspeople's images of the organization. By comparative studies of the images one could ascertain the differences in more specific and usable ways so that messages could be designed and speakers chosen who would promote a greater understanding between two groups. Another type of comparative study using the image would be across stimulus symbols. The ability to know the difference in students' images of the Black Student Union, Students for a Democratic Society, and the Youth for Freedom could lead to a better understanding about the appeal of extreme groups.

Investigations of changes in the image should be conducted using various types of messages. Informative and persuasive techniques should affect images in different ways. The group discussion as a decision-making process should be a likely source for study of image change.

This exploratory investigation has shown that perceived source credibility, ego-involvement, and initial attitude can be useful as concomitant variables in the analysis of changes in students' images of an organization. The direction of these results is toward the need for more
investigation of the effects and relationships among variables involved in image change.
APPENDIX I

A MEASURE OF IMAGES (INSTITUTIONS) FORM D3*

This is a study to measure the images certain persons have for institutions by having those people judge the institution against a series of descriptive word-pairs. The investigator will give you the name of the institution to be judged.

On the following pages you will find a series of word-pairs with which to make your judgments. For example:

1. a. direct  
   b. indirect  
   c. neither  
   d. both  
2. a. unfair  
   b. fair  
   c. neither  
   d. both  

If you regard the subject being judged as more direct than indirect, then you will black out the space under A on the separate score sheet provided. Make no marks on the test sheets. If, on the other hand, you feel the subject being judged is more indirect than direct, you will black out the space under B. 

If you feel that neither word in the pair is at all relevant to the image, black out the space under C. If

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*Credit for the instructions is given to Osgood, Suci, and Tannenbaum, The Measurement of Meaning, pp. 82-84. The form and method of scoring was devised by Douglas, "Students' Image of Presidential Candidates."
you feel that both terms in the pair apply equally, mark out the space under D. Do not omit any items.

With some items you may feel as though you had the same pair before on the test. This will not be the case, so do not look back and forth through the pairs nor try to remember how you checked earlier items. Each pair should make a separate and independent judgment.

Work rather quickly, straight through the items. Do not stop to puzzle or worry over any pair. It is your immediate impression, your spontaneous feeling, that we want. Don't be careless, either, because we want your true impressions.

1. a. unethical  
   b. ethical  
   c. neither  
   d. both

2. a. hostile  
   b. friendly  
   c. neither  
   d. both

3. a. coarse  
   b. refined  
   c. neither  
   d. both

4. a. pointed  
   b. wordy  
   c. neither  
   d. both

5. a. rough  
   b. smooth  
   c. neither  
   d. both

6. a. inefficient  
   b. efficient

7. a. unfinished  
   b. whole

8. a. undecided  
   b. determined

9. a. rejected  
   b. admired

10. a. foolish  
    b. wise

11. a. active  
    b. passive

12. a. independent  
    b. dependent

13. a. rounded  
    b. sharp

14. a. complex  
    b. simple

15. a. unbiased  
    b. biased

16. a. sour  
    b. sweet

17. a. absurd  
    b. meaningful

18. a. outstanding  
    b. ordinary

19. a. leading  
    b. following

20. a. despairing  
    b. hopeful

21. a. hidden  
    b. open

22. a. defensive  
    b. aggressive

23. a. tolerant  
    b. unbending

24. a. unproductive  
    b. productive

25. a. tart  
    b. flat

26. a. reverent  
    b. irreverent

27. a. rash  
    b. cautious
28. a. insincere  b. sincere
29. a. solemn  b. humorous
30. a. vivid  b. pallid

31. a. scholarly  b. unscholarly
32. a. powerful  b. impotent
33. a. good  b. bad

34. a. successful  b. failing
35. a. routine  b. innovating
36. a. noisy  b. musical

37. a. permissive  b. dictatorial
38. a. communicative  b. contained
39. a. unorganized  b. organized

40. a. uncertain  b. confident
41. a. loose  b. tense
42. a. informed  b. ignorant

43. a. serious  b. gay
44. a. persuasive  b. unpersuasive
45. a. intimate  b. distant

46. a. familiar  b. novel
47. a. creative  b. imitative
48. a. reactionary  b. radical

49. a. turbulent  b. placid
50. a. vital  b. trivial
51. a. insensitive  b. sensitive

52. a. wrong  b. right
53. a. competent  b. incompetent
54. a. altruistic  b. selfish

55. a. hard  b. soft
56. a. vague  b. clear
57. a. self-reliance  b. social welfare

58. a. distasteful  b. pleasing
59. a. abstract  b. concrete
60. a. colorless  b. colorful

61. a. patriotic  b. unpatriotic
62. a. consistent  b. inconsistent
63. a. war-maker  b. peace-maker

64. a. polished  b. plain
65. a. shallow  b. deep
66. a. minor  b. major

67. a. logical  b. emotional
68. a. steady  b. erratic
69. a. trustworthy  b. untrustworthy

70. a. idealistic  b. practical
71. a. cool  b. hot
72. a. immoral  b. moral

73. a. driving  b. easy-going
74. a. unnerving  b. soothing
(INITIAL ATTITUDE AND EGO-IN卷LEMENT)

Check the one statement which best expresses your feelings. Second, circle ALL the statements with which you disagree.

___A. I believe the Black Student Union is the most important organization on our campus.

___B. I believe the Black Student Union is vital to our campus.

___C. I feel the Black Student Union makes a number of positive contributions to our campus.

___D. Although the Black Student Union is not important for me, I do not mind its presence on our campus.

___E. I have no feeling one way or the other about the Black Student Union.

___F. I doubt that the Black Student Union is a necessary organization on our campus.

___G. I do not believe the Black Student Union can make any positive contributions to our campus.

___H. I believe the Black Student Union interferes with the purpose of our campus.

___I. I believe the Black Student Union should be abolished on our campus.

Circle the response that is nearest to your position;

1. (White students only) If I were a black student, I would—join, support, not support, avoid -- the Black Student Union.

2. (Black students only) I -- have joined, support, do not
support, avoid -- the Black Student Union.

(SOURCE CREDIBILITY)

This form is a method for you to rate the speaker you have heard. Mark out the proper space on the answer sheet. For instance, on the following scale:

| dynamic | 1 | 2 | 3 | 4 | 5 | static |

If you thought the speaker was very dynamic you would mark out the space under 1. If you thought the speaker was static but not extremely static, you would mark out the space under 4.

Please cite your evaluations of the speaker on each of the following scales.

1. non-militant | 1 | 2 | 3 | 4 | 5 | militant
2. interesting | 1 | 2 | 3 | 4 | 5 | boring
3. true | 1 | 2 | 3 | 4 | 5 | false
4. pleasurable | 1 | 2 | 3 | 4 | 5 | painful
5. democratic | 1 | 2 | 3 | 4 | 5 | autocratic
6. unconvincing | 1 | 2 | 3 | 4 | 5 | convincing
7. devious | 1 | 2 | 3 | 4 | 5 | frank
8. bright | 1 | 2 | 3 | 4 | 5 | dull
9. unreliable | 1 | 2 | 3 | 4 | 5 | reliable
10. indefinite | 1 | 2 | 3 | 4 | 5 | definite
11. dishonest | 1 | 2 | 3 | 4 | 5 | honest
12. falling | 1 | 2 | 3 | 4 | 5 | rising
13. literate | 1 | 2 | 3 | 4 | 5 | illiterate
14. real | 1 | 2 | 3 | 4 | 5 | phony
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<tr>
<th></th>
<th>relevant</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>irrelevant</th>
</tr>
</thead>
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<td>15.</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>fair</td>
</tr>
<tr>
<td>16.</td>
<td>positive</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>negative</td>
</tr>
</tbody>
</table>
I would like to read a position paper prepared by the Black Student Union on January 29, 1969.

CRISIS IN COLUMBUS, OHIO

Last year black students at Ohio State met almost daily with university administrators and faculty members to discuss the problems and grievances of OSU black students. These grievances related to the recruitment of black students, faculty members and administrators (Of the over 3,000 faculty members and administrators at OSU, less than 1% are black.), Black history courses, housing discrimination (In Sept. '68 a student-faculty committee completed a survey of housing discrimination in the campus area and reported that "overt and significant discrimination was detected and documented in 129 or 66% of the available rental units surveyed."), more recruitment and better treatment of Black athletes, relevant placement of Black foreign students, and university recognition of National Negro History week. But the black students achieved few results by "going through proper channels."

After university police manhandled several black women and university officials failed to take any action against those responsible, the April 26th Administration
Building teach-in took place. A BSU member announced that the administration building doors would be closed at 1:00, that anyone who was not willing to remain indefinitely should leave. However, people were permitted to enter and leave all afternoon. Over 200 persons, including both black and white students, faculty, ministers, and community leaders stayed in the building.

Negotiations were conducted throughout the day. After the administration conceded to several BSU demands, the doors were unlocked and the press was admitted.

The administration later claimed that since these agreements were made under coercion, it was not obliged to respect them. It did not honor its agreement to publish in the campus newspaper a list of programs to aid the black student or to have members of the black community represented on the committee investigating the police incident which led to the April 26th demonstration.

On April 27th, the Columbus Dispatch reported that "with the exception of a television cameraman who was forced to hand over his film, no incidents of violence or destruction were reported in the student occupation."

However, the local press later began a series of attacks against participants in the demonstration and was joined by members of the OSU Board of Trustees who made statements demanding that the "anarchists" be immediately expelled and that legal action be taken against them. The result was
that out of the over 200 people in the administration building, 34 black students were indicted on four charges, including kidnapping, and, if convicted, they each face up to 305 years in jail.

Despite the recommendations of a faculty investigating committee that no students be dismissed, the university dismissed eight black students. No action -- either in the courts or in the university -- has been taken against any white students.

The university also responded with repressive demonstration rules which, in effect, outlaw any demonstration of which the administration disapproves. Ohio State President Novice Fawcett began this academic year by stating that OSU will not become a soapbox for "exhibitionists" to display "their ludicrous and revolting self-expression."

Attempts to have the dismissed students reinstated, the new demonstration rules repealed, the original BSU demands acted upon, and good graces of the university used to influence the county prosecuting attorney to drop charges against the 34 black students have been unsuccessful. Besides President Fawcett's comment that he will not give in to "absurd" demands, the university's response has been one of silence.

The response of the OSU administration and the Columbus public officials in handing down these indictments
is the most reactionary to be taken in dealing with legitimate campus dissent. It has been seen by Blacks as an attempt to "whitewash" 98 years of university negligence, indifference, and racism by a "legal lynching of 34 black students."

As it stands to date, the two major charges -- kidnapping and conspiracy to abduct -- had been dropped, because of legal technicalities. They have since been revised, resubmitted and approved by a new Grand Jury, resulting in the same status as originally reported. The trial date has been set for April 7th.
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