

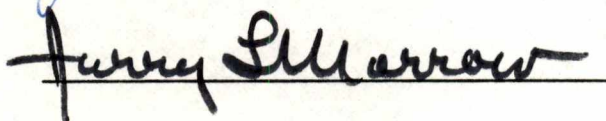
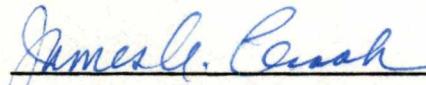
To the Graduate Council:

I am submitting herewith a thesis written by Paul A. Preusse entitled "The Advertising Recruitment of Blacks to the U.S. Coast Guard Officer Corps." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Communications.

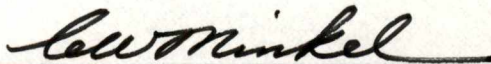


M. Mark Miller, Major Professor

We have read this thesis
and recommend its acceptance:



Accepted for the Council:



Vice Provost
and Dean of The Graduate School

STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a Master's degree at The University of Tennessee, Knoxville, I agree that the Library shall make it available to borrowers under rules of the Library. Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgment of the source is made.

Permission for extensive quotation from or reproduction of this thesis may be granted by my major professor, or in his absence, by the Head of Interlibrary Services when, in the opinion of either, the proposed use of the material is for scholarly purposes. Any copying or use of the material in this thesis for financial gain shall not be allowed without my written permission.

Signature _____

Date 7-11-85

THE ADVERTISING RECRUITMENT OF BLACKS
TO THE U.S. COAST GUARD
OFFICER CORPS

A Thesis
Presented for the
Master of Science
Degree
The University of Tennessee, Knoxville

Paul A. Preusse
August 1985

ABSTRACT

This study examined the job attributes considered most desirable by black collegians in selecting post-graduate employment, with specific reference to employment in the U.S. Coast Guard. A measurement technique based on the theoretical assumptions of symbolic interactionism, tradenamed Galileo, was used to measure subjects' cognitions regarding jobs. Procedurally, this required the determination of subjects' domain of discourse about jobs. The domain of discourse was identified through a series of open-ended interviews with a random sample of black juniors and seniors at The University of Tennessee, Knoxville (UTK). Using the established domain of discourse, a Galileo-type questionnaire was subsequently devised to ascertain the perceived differences among job attributes in the domain. To establish a frame of reference for the domain, the concepts "U.S. Coast Guard" and "yourself" (representing the aggregate black) were added. The Galileo-type questionnaire was administered to a second random sample of black juniors and seniors at UTK. Data from the questionnaires were encoded and entered into the Galileo computer program and its special "Automatic Message Generator" (AMG) routine.

Results of the computer analysis provided maps of concept relationships that were visually interpretable. Additionally, the AMG routine developed message solutions that could be used to attract blacks to the Coast Guard. The

most effective message solutions were those which emphasized "comfortable working conditions" and any of the more tangible job rewards such as "promotion opportunities" and "good salary and benefits." Use of these solutions was the recommended basis of future Coast Guard advertising recruitment campaigns.

TABLE OF CONTENTS

CHAPTER	PAGE
I. STATEMENT OF THE PROBLEM.	1
II. OVERVIEW OF LITERATURE.	3
III. THEORETICAL PERSPECTIVE: MEASURING COMMUNICATION PROCESSES	7
IV. METHODOLOGY	17
V. RESULTS	29
VI. STUDY LIMITATIONS	40
VII. AREAS OF FURTHER RESEARCH	42
REFERENCE LIST	44
APPENDIX.	47
VITA.	56

CHAPTER I

STATEMENT OF THE PROBLEM

The policies of affirmative action have placed a responsibility on government agencies to manage their demographic makeup. This entails the close and active monitoring of minority groups and their populations within each agency.

The U.S. Coast Guard, a military agency within the Department of Transportation, has had difficulty meeting its affirmative action plan in the recruitment of qualified minority (specifically black) officer candidates. An 11.7 percent black composition of the officer corps (reflecting the proportion of blacks in the nation as determined by the 1980 census) was the goal established by the Coast Guard Commandant in 1982. Despite concerted recruitment efforts, this goal has never been reached (Commandant's Instruction 1131.7, 1982).

In most cases, a qualified officer candidate must possess a bachelor's degree from an accredited college or university, meet physical requirements, be evaluated by a panel of officers and compete successfully on an officer candidate examination. Statistics indicate that minority candidates entering the officer candidate program do not differ significantly from other candidates in accession or

attrition rates. The problem, therefore, centers on the Coast Guard's inability to attract qualified minorities to the program.

During the past few years major portions of the Coast Guard's recruitment advertising budget have been devoted to developing campaigns and media plans to rectify the recruiting problem. The Thomas Buffington Agency, a minority-run advertising firm, is currently contracted to the Coast Guard for developing and placing all of the Coast Guard's advertising. However, the emphasis placed on achieving a higher percentage of minority officers has done little to improve the situation (Department of Transportation, U.S. Coast Guard Contract 23-83-C31067, 1983).

Several factors might explain why the Coast Guard is unable to attract a sufficient number of minorities to its officer corps. Salary, ethnocentrism, military organization and a highly competitive job market for qualified minorities figure into the recruiting problem. However, such factors are not within the direct purview of the Coast Guard.

One probable source of the recruiting problem is the communicated message used to attract minorities. Present advertising messages, both print and broadcast, may be inappropriate or ineffective in communicating with minorities and attracting them to the program. A determination of appropriate message content is necessary, therefore, for optimal communication in any subsequent advertising campaign.

CHAPTER II

OVERVIEW OF LITERATURE

Very little research has been done on recruitment advertising for minorities, and virtually none has been done with respect to minority officers in the Coast Guard. Research used in support of past and present advertising campaigns for armed forces recruiting tends to be based on the aggregation of nominal data such as sex, age, education level and race.

Typical of the research that exists is Development of a ROTC/Army Career Commitment Model: Final Report (Volumes I and II). The conclusions from this study were based on a statistical analysis of responses gathered from a random sample of high school and college students. Differences between ROTC cadets and classmates in terms of demographic background, aptitudes, social environment and social-psychological profile were examined with respect to the process and stages of career commitment. Major findings of the study indicated that early exposure to a career path increases commitment, and free initial motivation in joining ROTC increases the likelihood of subsequent Army commitment.

Another piece of research, Navy Recruitment in Junior Colleges, focused on the alternative methods of recruitment and on suggested appeals to the target market segment. The

study's findings suggested media and appeal strategies based primarily on the demographic characteristics of male junior college students.

A third piece of research, entitled U.S. Army Forces Minority Officer Procurement examined minority officer representation and the methods for achieving minority officer representation goals. Once again, the research findings were extrapolated from a statistical analysis of demographic data gathered through traditional survey techniques.

None of the aforementioned research attempted to deal specifically with advertising message content. Generally, the research findings suggested possible strategies for media planning and target market appeal based almost exclusively on demographic data.

Peripheral research can be found pertaining to occupational or career choice; but once again, there is none that is Coast Guard or advertising recruitment specific.

Occupational choice, as the name denotes, refers to the selection of a particular career or job. Correctly predicting occupational choice would mean naming in advance the specific career to which an individual would aspire. If this were possible, advertising campaigns could be targeted directly to those individuals having particular job aspirations.

Social scientists maintain that aspiration levels and actual job choices are formed by individual attitudes

mediated by expectations of significant others (i.e., close friends, relatives, parents, etc.). The difficulty in occupational choice research, however, has been the inability of researchers to measure salient choice variables quantitatively.

In his "Theory of Occupational Choice," Joseph Woelfel indicated that difficulties of occupational choice research are amplified by two conditions:

. . . first, no satisfactory nominal classification of occupations by type has yet been devised; and second, it is very unlikely that various diverse occupational subgroups (males, females, blacks, whites, etc.) share a common classification system of occupations. (Career Behaviors of Special Groups, 1975, p. 45)

Woelfel proposed a theory and associated measurement technique, to define and measure occupational choice. Woelfel's theory was based on fundamental psychological processes of human perception. According to social psychologists, the perception and identification of any object is a process of distinguishing differences in stimuli among two or more objects on the basis of dissimilar attributes. The aggregation of all the attribute dissimilarities can be regarded as a measure of overall differences between objects.

Woelfel made use of a multidimensional scaling (MDS) technique, trade-named "Galileo," to measure the aforementioned cognitive process. This theoretical model explains cultural objects.

Although occupational choice research is peripheral in

nature to the study of recruitment advertising, Woelfel's theory underlying occupational choice can be used to define and measure occupational expectations for recruiting applications. Occupational expectations, or attributes, may range from the perceived image of a career to job security. Determining and measuring these variables in relation to oneself and a particular occupation (i.e., Coast Guard officer) will help to pinpoint those variables which are important to emphasize in any recruiting endeavor.

To that end, the theory and practice of Galileo will provide the basis for examining the expectations of a career as an officer in the U.S. Coast Guard from a minority point of view.

CHAPTER III

THEORETICAL PERSPECTIVE: MEASURING COMMUNICATION PROCESSES

The perspective of symbolic interactionism has its roots in eighteenth century Scottish moral philosophical thought. The works of Scottish philosophers, Hume, Ferguson and Smith, are considered to be the foundation of pragmatic philosophical thought in America. It was from the writings of philosophical pragmatists such as Pierce, James, Dewey and Baldwin that the development of symbolic interactionism was greatly influenced (Franklin, 1983).

The idea of symbolic interactionism was first proffered by philosopher, George Herbert Mead, and sociologists, William Isaac Thomas and Charles Horton Cooley. Mead, who is perhaps most closely associated with the concept of symbolic interactionism, rejected the prevailing behaviorist view that persons respond passively to stimuli in their environment. Instead, he maintained that people act toward objects in terms of their meaning. The meaning is not inherent in the objects themselves but derived from conscious interpretation and social interaction (Franklin, 1982).

Contemporary symbolic interactionism is characterized by diverse interpretations of Mead's original conceptions about the perspective. As a result, two major schools of

thought have emerged. These schools are referred to broadly as "processual symbolic interactionism" and "structural symbolic interactionism" (Franklin, 1982, p. 89).

Processual symbolic interactionism pertains generally to those interpretations of Mead's work that focus on an aspect of the nature of social interaction as process. Herbert Blumer is probably the major proponent of processual symbolic interactionism. The processual perspective as developed by Blumer is based on three assumptions:

1. Persons act toward objects (physical, social and abstract) on the basis of the meanings that the objects have for them;
2. The meanings of objects for persons arise out of the social interaction that one has with one's fellows; and
3. The meanings given to objects are handled in and modified through an interpretation process used by persons in dealing with objects which are encountered (Blumer, 1969, p. 2).

It is clear from these assumptions that Blumer was a student of Mead. The first two assumptions are borrowed directly from Mead's lecture notes, which were later published as Mind, Self and Society (1934). The third assumption is strictly Blumer's interpretation of Mead (Franklin, 1982).

Processual symbolic interactionism has been refined

and modified through the contributions of many scholars since Mead, Cooley and Thomas. However, the perspective's underpinnings, as characterized by Blumer's assumptions, remain essentially the same.

Structural symbolic interactionism is the label applied to those views of the perspective which emphasize the confining and/or setting influence of social structure on social interaction. Manford H. Kuhn, who is credited as being the "chief architect of structural symbolic interactionism," developed a set of assumptions which underlie the perspective (Franklin, 1982, p. 102). Mead's influence is once again obvious in these assumptions:

1. That objects do not have intrinsic meaning but rather derive their meanings through social definitions;
2. That individuals behave toward objects in terms of their meanings; and
3. That the individual is not simply passive, automatically responding to group assigned meanings of objects (Hickman & Kuhn, 1956, pp. 25-26).

There are several points of difference, both in theory and methodology, between processual symbolic interactionism and structural symbolic interactionism. However, the basic distinction in the process vs. structure issue is methodological in nature. The argument centers on the "opposition between humanistic and positivistic approaches to social

investigation" (Meltzer, Petras & Reynolds, 1972, p. 42).

The three specific points of departure in methodology are

1. the relative merits of phenomenological and operational approaches;
2. the appropriate techniques of observation; and
3. the nature of the concepts best suited for the analysis of human behavior (p. 42).

Processual symbolic interactionists emphasize the importance of getting "inside" those being studied. This requires the examination of one's own mental processes in order to sympathize with the subject. A meaningful analysis of the subject's behavior can only be made when the researcher is able to vicariously experience the subject's world. Thus, the processual methodology limits the ability to study symbolic interactionism as a theory (Franklin, 1982).

On the other end of the continuum, structural symbolic interactionists refuse to accept the processual argument that one must assume the role of other individuals to observe their interpretive processes. Structuralists view the self as an object, which permits researchers to operationalize attributes of the self. Human behavior is viewed from the structural perspective as being closely associated with self-attributes. Thus, social interaction can be investigated by constructing variables, developing propositions and testing hypotheses (Franklin, 1982).

The structural symbolic interactionists' conception of the self as an object enables researchers to give precise meaning to this concept through quantitative measurement. One such quantitative research approach, the Galileo method, was devised specifically for measuring cognitive and cultural processes (Galileo is also the trade name given to a computer program for analyzing data gathered according to the method). This unique and innovative method incorporates special survey procedures and multidimensional scaling techniques (MDS).

MDS techniques have proven to be effective in various commercial and political applications. The principal use of MDS historically has been in the area of product positioning. Dupont Corporation used MDS techniques to conduct marketing research as early as 1953. However, because of the sophisticated mathematics involved in MDS applications, use of the technique was limited. The advancement of the computer and the development of accessible software have greatly increased the use of MDS techniques by major corporation.

MDS is basically a mathematical tool that accounts for measures of differences and dissimilarities among some set of concepts or perceptions. After obtaining the measures, they are projected onto a spatial map (set of coordinate axes). Objects determined to be similar to each other will be represented as points close together on the map. Conversely, objects judged to be dissimilar are represented

on the map as points far from each other. There are several MDS programs in use. Such programs as MINISSA, POLYCON, CMDS, KYST and SINDSCAL differ in the initial measurement process and in the mathematical derivations by which the measured dissimilarities are mapped (Shiffman, Reynolds & Young, 1981).

Recent methodological developments in MDS procedures have gone "beyond intuitive interpretation of the maps to explicit, mathematically derived prescriptions for effective communication strategies" (Miller, 1984, p. 2). The Galileo method has the capability of producing such communication strategies.

This theoretical model explains cultural and cognitive processes as changes in relationship among sets of cultural objects. Measurement of the interrelationships among these objects is accomplished by estimating the magnitude of pair comparisons. For instance, an individual given a standard of measurement may differentiate himself or herself from another object or concept by n number of units. The numerical estimations resulting from a series of ratio (pair comparison to measurement standard) judgment scales are arranged in dissimilarity matrices and subsequently entered into Galileo's MDS program. Each of the cultural objects used in the pair comparison portion of the methodology is then represented as a point in a multidimensional Riemann space. Movement of these objects, relative to the other objects within the space, constitutes cognitive and cultural

processes. Vector analysis applied to the multidimensional space determines the movement of objects (Woelfel & Fink, 1980).

The Galileo method has distinct advantages over other MDS programs and more commonly used measurement procedures such as Likert and semantic differential scales. Some of the more notable advantages of Galileo are as follows:

1. it yields precise, reliable data;
2. it uses modest sample sizes making it very cost effective relative to conventional survey methods;
3. it yields visually interpretable graphic maps; and
4. it generates explicit recommendations for message content that can be used by policy makers and communicators to reach specified goals (Miller, 1984, p. 3).

It is Galileo's unique application of ratio judgment scales (making pair comparisons relative to a standard numerical ruler) that accounts for the high degree of the precision and reliability found in the data. As Woelfel and Fink conclude:

The consistent pattern of all available evidence indicates that the mean separation matrix produced by the method of ratio judgments of separations contains quantitatively more precise and reliable information than can be produced by any other psychometric device yet tested, including the most commonly used instruments. (1980, p. 98)

By virtue of Galileo's methodological precision and its multidimensional properties only modest sample sizes (75-90) are required. This is possible because ". . . the first three dimensions . . . account for about twice as much reliable variance as does the average semantic differential instrument totally" (Woelfel & Fink, 1980, p. 98). The multidimensional properties of Galileo also provide visual projections for immediate analysis.

The most notable advantage of Galileo, however, is its ability to produce messages for use in communication strategies. The Galileo method prescribes the content of messages that will effectively create desired shifts in public attitudes. As a result, the communicator need only be concerned with constructing and disseminating the messages (Miller, 1984).

Because of the Galileo method's distinct capabilities, its applications to advertising, political campaigns and marketing are clear. Several major corporations including Chrysler, General Motors, General Electric, Hanes Clothing and R. J. Reynolds have already made successful use of the Galileo method for advertising and marketing purposes. However, most of the commercial research conducted using the Galileo method is proprietary in nature and, therefore, unavailable for critical review. Additionally, relatively little academic discussion of the Galileo method is found in scholarly journals.

Academic discourse that is available about Galileo attests to its strength as a multidimensional model for measuring cognitive theory. "The Galileo System of Measurement: Preliminary Evidence for Precision, Stability and Equivalence to Traditional Measures" provides a descriptive analysis of the Galileo research approach, presents data that describes the reliability and validity of the method, and contrasts Galileo with more traditional measurement procedures (Gillham & Woelfel, 1977). Another baseline article, "Foundations of Cognitive Theory: A Multidimensional Model of the Message-Attitude-Behavior Relationship" by Joseph Woelfel, evaluates cognitive theory on the basis of Galileo's measurement reliability and the method's ability to predict observed situational outcomes (1980). A third article, "Basic Premises of Multidimensional Attitude Change Theory: An Experimental Analysis," used Galileo to support the hypothesis that stimuli defining the domain of attitudes are multidimensional as opposed to unidimensional (Woelfel, Cody, Gillham & Holmes, 1980).

Most of the literature regarding Galileo, however, discusses the application of this measurement method. "Campaign Communication and Attitude Change: A Multidimensional Analysis" is one such example (Barnett, Serota & Taylor, 1976). In this article the authors use Galileo to measure political attitude change during a 1974 congressional election. Results from the study suggest the superiority of multidimensional approaches for measuring public opinion.

The relative newness of Galileo is perhaps the major reason for the lack of professional discourse about the method.

It should be recognized that the theory underlying Galileo assumes human rationality. Many philosophers and social scientists argue that rationality is inherent in every human act. However, these same writers often note deviations from rationality in daily human activity. So, in spite of the ingenuity, many problems in completely rational theories, such as Galileo, remain (Woelfel & Fink, 1980).

CHAPTER IV

METHODOLOGY

Introduction

The theoretical assumptions underlying the Galileo method, as discussed in Chapter III, provided a framework for examining communication aspects of the Coast Guard's minority officer recruiting problem. A restatement of these assumptions with specific reference to this study are:

1. That the research subjects possess socially-derived definitions for jobs, including jobs in the Coast Guard;
2. That the subjects will respond to jobs in terms of their meanings; and
3. That individual subjects don't automatically respond to group assigned meanings for jobs.

The application of these theoretical assumptions suggests that meaning for the concept "U.S. Coast Guard" can be determined through a process of identifying its interrelationships with other cultural concepts on the basis of dissimilar attributes.

In this particular study, the concepts "U.S. Coast Guard" and "yourself" were placed among a domain of concepts considered representative of subjects' cognitions regarding desirable job attributes. This constituted the frame of

reference from which perceptions of the Coast Guard were subsequently derived. The collective comparisons made between each of the concepts in the domain provided a definition of the Coast Guard in terms of job attributes considered desirable by blacks. This definition could then be used to communicate more effectively with prospective minority officer candidates.

The mechanics involved in applying this theoretical method are discussed in the following sections.

Overview

There were three distinct research phases involved in this study. Phase one concerned the establishment of a domain of discourse about job attributes. The second phase of the study built on phase one by using the domain of discourse to construct and administer a Galileo-type questionnaire. The final phase used the data gathered in phase two as input to the Galileo computer program. The program, in turn, was able to provide a visual representation of concept relationships in the form of a multidimensional map. A more detailed description of the methodology utilized in each phase follows.

Open-ended Interviews

To have effective communication between a source and a receiver requires that messages be targeted at the concerns of the receiver and constructed in the receiver's vernacular.

Thus, it became imperative to determine the receiver's domain of discourse regarding jobs. To do this, it was necessary to identify the attributes used by the receiver (in this case black students) in describing prospective jobs and the language used in expressing those descriptions.

Identifying attributes were achieved procedurally through a series of open-ended interviews conducted with a random sample of black juniors and seniors at The University of Tennessee, Knoxville. It was decided that freshmen and sophomores would be excluded from the study, as the majority of individuals in these collegiate year groups have not made designated degree decisions and, thus, may not have formalized job expectations.

A fixed-interval sample of 20 was drawn from the population of 384 black juniors and seniors enrolled during winter quarter 1985. The University's Black Cultural Center provided the comprehensive list of black students from which the sample was drawn. All but three of the sampled individuals participated in the interview process. This provided a response rate of 85 percent. Of the 17 students interviewed, approximately 65 percent were male. Seniors represented a little more than two-thirds of the sample with 71 percent, while juniors comprised the remaining 29 percent.

The interview questionnaire was constructed as informally as possible to present a conversational tone to the

person being interviewed. This was intended to limit any contrived or stilted responses. Additionally, the questions were phrased to avoid leading participants in their responses. Typical of the questions asked were:

"What kinds of things are you looking for most in a job?"

"What kinds of things make a job less desirable to you?"

Responses to these types of questions were followed up and explored by the interviewer. In this way the interviewer was assured the participants' views were expressed completely and accurately.

Interviews were conducted in the setting of the University's Black Cultural Center to provide respondents with a familiar and relaxed atmosphere. Interviews averaged approximately 30 minutes. The aforementioned research conditions combined to yield a rich set of data.

From the data a list of 12 concepts was compiled. These concepts were taken directly from the questionnaires based on the frequency of their mention in the interviews. Only those concepts referred to repeatedly by a majority of respondents were placed on the list. Table I provides the initial list of salient concepts and the frequency with which each was mentioned. The explanation of each concept (also provided in Table I) was derived from the context in which the concept was used, the implied meaning given, or from synonyms used to describe the concept during interviewer probing.

TABLE I

INITIAL LIST OF CONCEPTS SALIENT TO BLACK JUNIORS
AND SENIORS AT THE UNIVERSITY OF TENNESSEE

Concept	Frequency Mentioned*	Explanation
PROFESSIONAL	9	progressive organization, creditable position, associated with prestige
WORKING WITH PEOPLE	12	personal contact on the job
CHALLENGING	12	motivational factor
PROMOTION OPPORTUNITIES	15	advancement, attaining success
HELPING OTHERS	9	rewarding, personal satisfaction
COMMUNITY SERVICE	8	serving the public, less charitable
INDIVIDUAL ACCEPTANCE	9	avoiding quota situations, self worth, receptiveness
COMFORTABLE WORK ATMOSPHERE	9	fair treatment of minorities in the workplace, geographic location
RESPONSIBILITY	13	leadership, control of the situation
STABILITY	15	limited travel, control of transfers, job security
ABLE TO LIVE COMFORTABLY	14	good salary and benefits
INTERESTING	8	exciting, stimulating, fascinating

*Frequency based on 17 interviews.

The concept "professional" was used by respondents to identify those organizations with leadership roles in both the public and private sectors. "Working with people" reflected a desire by respondents to be able to interface with individuals in an organization, as well as with those served by it. A third concept, "challenging," was referred to by respondents in describing the difficulty of work provided by a job. One of the most frequently mentioned concepts, "promotion opportunities," was defined by respondents as advancing within an organization. Advancement was perceived as a measure of responsibility and success. Although the concepts, "helping others" and "community service" were used synonymously, there was a perceptible difference in connotations. "Helping others" was considered a personal responsibility or individual commitment as opposed to a job attribute. "Community service," on the other hand, was defined as serving the public from an institutional perspective. Respondents used "individual acceptance" to characterize the openness of a job or organization to new ideas, experiences and personalities. In mentioning the concept "comfortable work atmosphere" respondents were referring to pleasant conditions in the workplace, including the fair treatment of minorities. "Responsibility" was the concept respondents used to describe the leadership potential of a job. The second most frequently mentioned concept, "stability," described the amount of job security

present in a job or career. "Able to live comfortably" was the code-word concept given by respondents for jobs which provide good salaries and benefits to employees. The final concept, "interesting," was used by respondents to describe the nature of a job.

The initial list was subsequently analyzed to determine if any of the concepts overlapped in meaning. Despite a slight, though perceptible, difference in meanings, the terms "helping others" and "community service" were found to be very similar. Thus, the encompassing concept "opportunities to help others" was used in place of the two original terms. In a similar determination, the terms "challenging" and "interesting" were collapsed into the concept of "challenging work."

One of the prime advantages of this specialized survey technique is that it makes allowances for the target market's vernacular. However, the domain of discourse (set of salient concepts) must be examined from the perspective of advertising and public relations applications. For this reason, code-word concepts such as "able to live comfortably" must be modified to convey more specificity in copy. Thus, subjective determinations were made to substitute frequently mentioned synonyms for code-word concepts. For example, the previously mentioned code-word concept, "able to live comfortably," was changed to the synonymously mentioned phrase "good salary and benefits." A similar judgment

was made to change the code-word concept "stability" to the interchangeably used phrase "job security." In each case, the substituted phrases were considered more meaningful to subsequent respondents. Additionally, the concept "professional" was modified slightly to "professional atmosphere" in order to convey more meaning. Likewise, "comfortable work atmosphere" was changed to "comfortable working conditions." Table II provides the revised domain of salient concepts used in constructing the Galileo-type questionnaire.

Galileo-type Questionnaire

The domain of concepts derived from the open-ended interviews provided the basis for constructing the Galileo-type questionnaire in the second phase of this research. Each of the ten concepts along with the concepts "U.S. Coast Guard" and "yourself" was paired once with each of the other concepts. Combining every possible concept resulted in a total of 66 pairings. Using the arbitrary ruler of 100 difference units between "responsibility" and "job security," survey respondents were asked to make direct magnitude separation estimates between all 66 pairs of concepts. Questions were posed in the following format:

"If responsibility and job security differ by 100 units, how different are (concept) and (concept) ?"

The questionnaire was administered to a second fixed-interval sample of 120 drawn from the same population used

TABLE II

REVISED LIST OF CONCEPTS SALIENT TO BLACK JUNIORS
AND SENIORS AT THE UNIVERSITY OF TENNESSEE

Concept	Explanation
PROFESSIONAL ATMOSPHERE	progressive organization, credible position, associated with prestige
WORKING WITH PEOPLE	personal contact on the job
CHALLENGING WORK	motivational factor, exciting stimulating, fascinating
PROMOTION OPPORTUNITIES	advancement, attaining success
OPPORTUNITIES TO HELP OTHERS	rewarding, personal satisfaction, serving the public
INDIVIDUAL ACCEPTANCE	avoiding quota situations, self worth, receptiveness
COMFORTABLE WORKING CONDITIONS	fair treatment of minorities in the workplace, geographic location
RESPONSIBILITY	leadership, control of the situation
JOB SECURITY	limited travel, control of transfers, stability in a job
GOOD SALARY AND BENEFITS	able to live comfortably

in the first phase of this research. Because the sample was drawn from a winter quarter list several of the individuals selected had graduated or changed residences. Therefore, the available sample was actually 107.

The majority of survey respondents were given the Galileo-type questionnaire in person at the University's Black Cultural Center. In this way, the investigator provided an atmosphere more conducive to understanding the unique nature of the Galileo survey technique. However, some respondents were administered the survey over the telephone because of scheduling conflicts. In either case, respondents were carefully instructed to complete the questionnaire. The instructions included working through some pair comparisons using irrelevant concepts to acquaint respondents with the survey technique.

The combination of personal interview and telephone survey methods netted a total of 70 respondents, providing a response rate of approximately 65 percent.

The sample was evenly split in terms of respondent's sex (49 percent female, 51 percent male) and collegiate year (50 percent juniors, 49 percent seniors). The age of respondents ranged from 19 to 26 with a mean age of 21.6. Respondent grade-point averages were categorized into one of four ranges based on a 4-point scale: 4 percent were above 3.5; 34 percent were between 3.0 and 3.5; 50 percent were between 2.5 and 3.0; 10 percent were below 2.5.

Galileo Computer Program

The data collected from the questionnaires administered in the study's second phase were encoded and entered into the Galileo computer program. From the data submitted, the Galileo program derived a multidimensional space of the concepts' positions relative to one another. Despite the fact that there were 12 dimensions in this study, only 3 dimensions can be displayed graphically. Therefore, a substantial portion of the information was not represented on the map.

A final computer procedure involved message selection based on the convergence of concepts with "yourself" and "U.S. Coast Guard." This was accomplished by a special Galileo computer program routine called, "Automatic Message Generator." A conceptual explanation of message selection will provide a better understanding of the computer procedure.

The relative spatial positions of the concepts other than "yourself" are considered beliefs. So that, the nearer two concepts are, the more they are assumed to be associated. Relative distances between "yourself" and other concepts in the space are thought of as attitudes. The nearer a concept is to "yourself," the more positive the general attitude toward it. Thus, the intent of message selection is to bring about a desirable shift in attitude by generating messages that will change beliefs. This is achieved within

the context of this study by determining the concepts which can be associated with "U.S. Coast Guard" to move it toward "yourself" (Miller, 1984).

Using trigonometric functions, the computer vectorially moved "U.S. Coast Guard" toward the aggregate "yourself" by associating it (U.S. Coast Guard) with other concepts in the domain. Those concepts that brought "U.S. Coast Guard" nearest to "yourself" were considered closely associated and, thus, the most effective message content to be used in attracting blacks (the aggregate "yourself" in this case) to the Coast Guard.

CHAPTER V

RESULTS

Two-Dimensional Maps

Using the mean of the estimated distances between each of the 12 concepts, the computer derived three two-dimensional maps showing concept positions relative to one another.

Figure I is a map, or coordinate axes, representing the first two dimensions (x and y axes). These dimensions accounted for approximately three-fifths of the available information. The remaining information was spread over ten other minor dimensions.

Most of the concepts displayed in the first map are aligned closely with either the x or y axis. The concepts along the x axis ranged from "comfortable working conditions" to "individual acceptance." Thus, the x axis arrayed concepts from left to right on the basis of difficulty in the work environment. This dimension was interpreted accordingly as "Difficulty of Working Conditions."

The concepts along the y axis ranged from "working with people" at the low end to "good salary and benefits" at the upper end. This axis arrayed concepts from altruistic job rewards such as "opportunities to help others" to more self-centered job rewards as "promotion opportunities." Therefore, this dimension was interpreted as "Tangible Job Rewards."

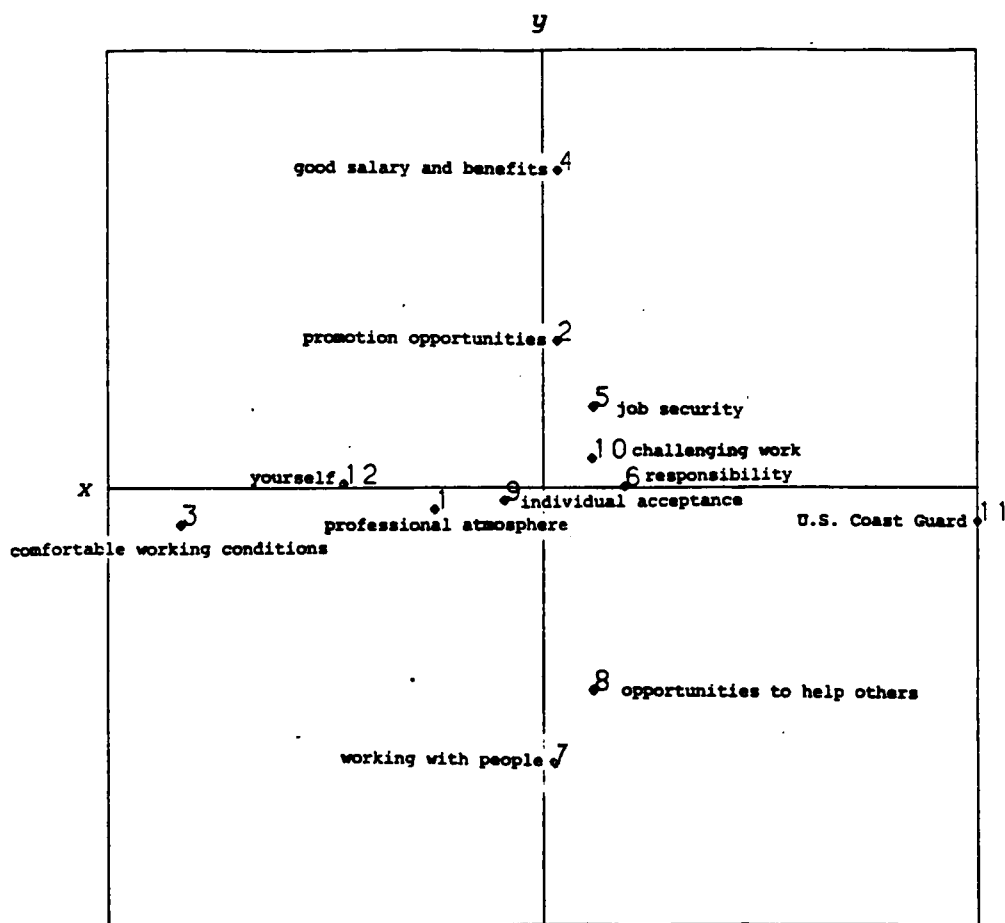


FIGURE I
CONFIGURATION OF JOB CONCEPTS IN TWO DIMENSIONS:
"WORKING CONDITIONS" (x AXIS) AND "TANGIBLE
JOB REWARDS" (y AXIS)

Figure II is a map of the first and third dimensions (x and z axes). These dimensions accounted for approximately one half of the available information. The x dimension, which runs horizontally, has already been interpreted as "Difficulty of Working Conditions." The concepts in the third dimension, represented by the z axis, ranged from "job security" in the upper right quadrant to "professional atmosphere" in the lower left quadrant. In addition, clustered in the lower right quadrant are the concepts "promotion opportunities," "challenging work" and "responsibility." Consequently, the z axis appears to have arrayed concepts on the basis of accountability. In other words, the more job security present in an individual's employment, the less accountability there is in the job itself. This dimension was interpreted as "Job Accountability."

The third and final two-dimensional map derived by the computer displays concept positions in the second and third dimensions (y and z axes). This map is shown in Figure III. Both the y and z dimensions were previously interpreted as "Tangible Job Rewards" and "Job Accountability" respectively. These dimensions accounted for approximately one third of the available information.

Reading the three maps based on the interpreted dimensions, "U.S. Coast Guard" was perceived by blacks as an accountable, yet difficult and unpleasant place to work for only moderate tangible reward. It should be emphasized that

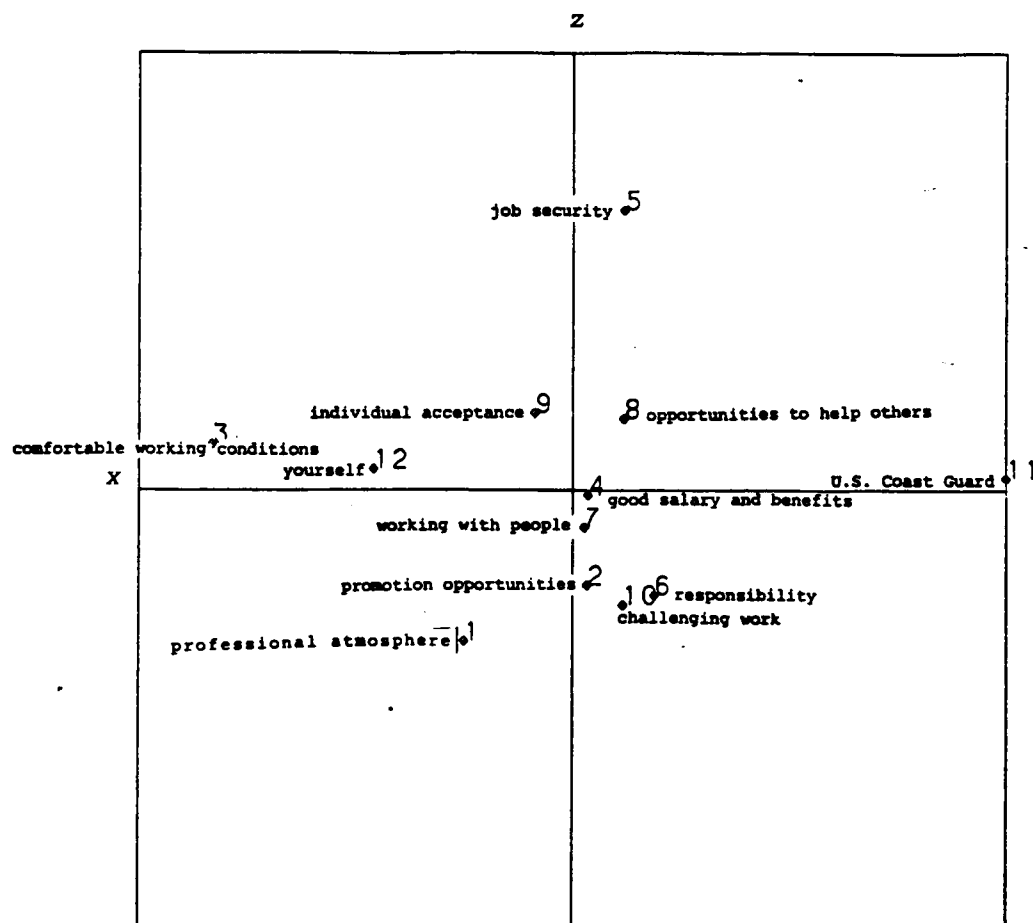


FIGURE II

CONFIGURATION OF JOB CONCEPTS IN TWO DIMENSIONS:
 "DIFFICULTY OF WORKING CONDITIONS" (X AXIS)
 AND "JOB ACCOUNTABILITY" (Z AXIS)

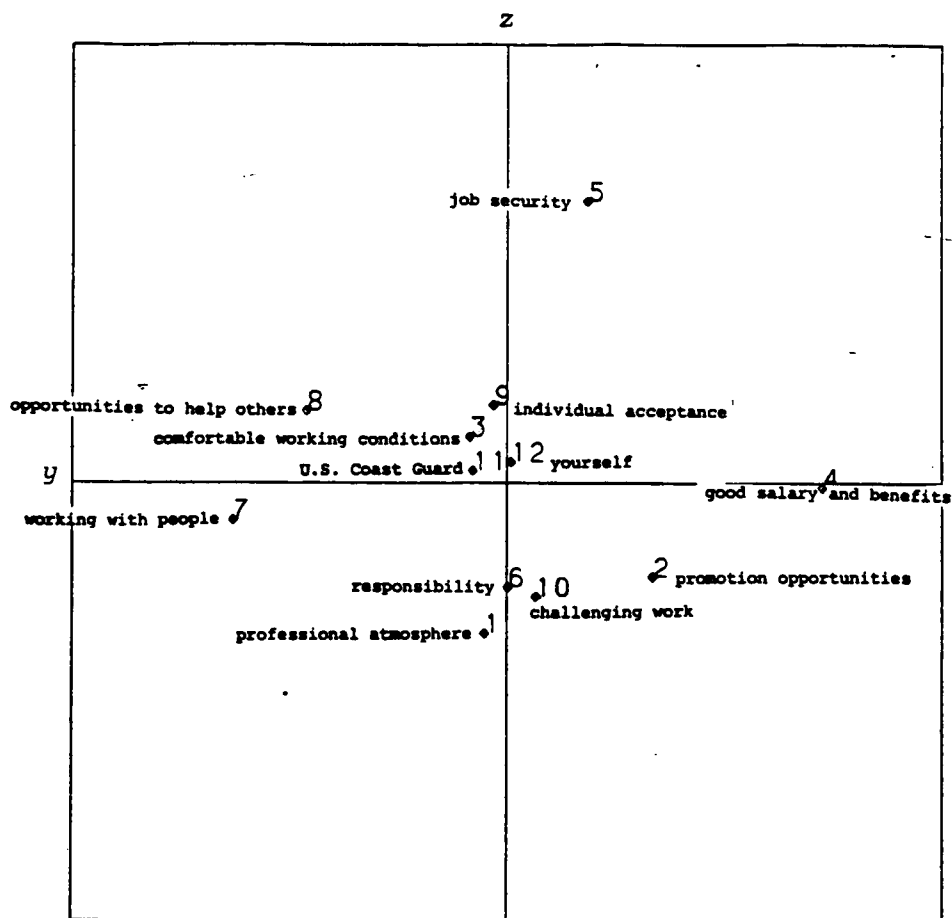


FIGURE III

CONFIGURATION OF JOB CONCEPTS IN TWO DIMENSIONS:
 "TANGIBLE JOB REWARDS" (y AXIS) AND
 "JOB ACCOUNTABILITY" (z AXIS)

study participants were not asked to evaluate the Coast Guard in terms of the interpreted dimensions. Instead, respondents were asked only to differentiate among all of the concepts.

Three-Dimensional Map

The computer also generated a three-dimensional map utilizing the concept coordinates from each of the dimensions discussed in the previous section. This map is shown in Figure IV.

By adding a third dimension, more information could be displayed. In this map, approximately three fourths of the available information is visually represented by the first three dimensions. The remaining information is spread over nine other minor dimensions. This remaining or missing information can be accounted for mathematically, but cannot be represented visually.

Despite the visual loss of information, the three-dimensional map provides a sensible image of concept relationships within the domain of study.

The longest distance on the map is between "comfortable working conditions" (3) and "U.S. Coast Guard" (11). Falling between these concepts, but nearer to "comfortable working conditions" is "yourself" (12). Arrayed about the central core of the map are the physical and altruistic attributes of jobs. The most distant of these concepts are "good salary and benefits" (4) and "working with people" (7).

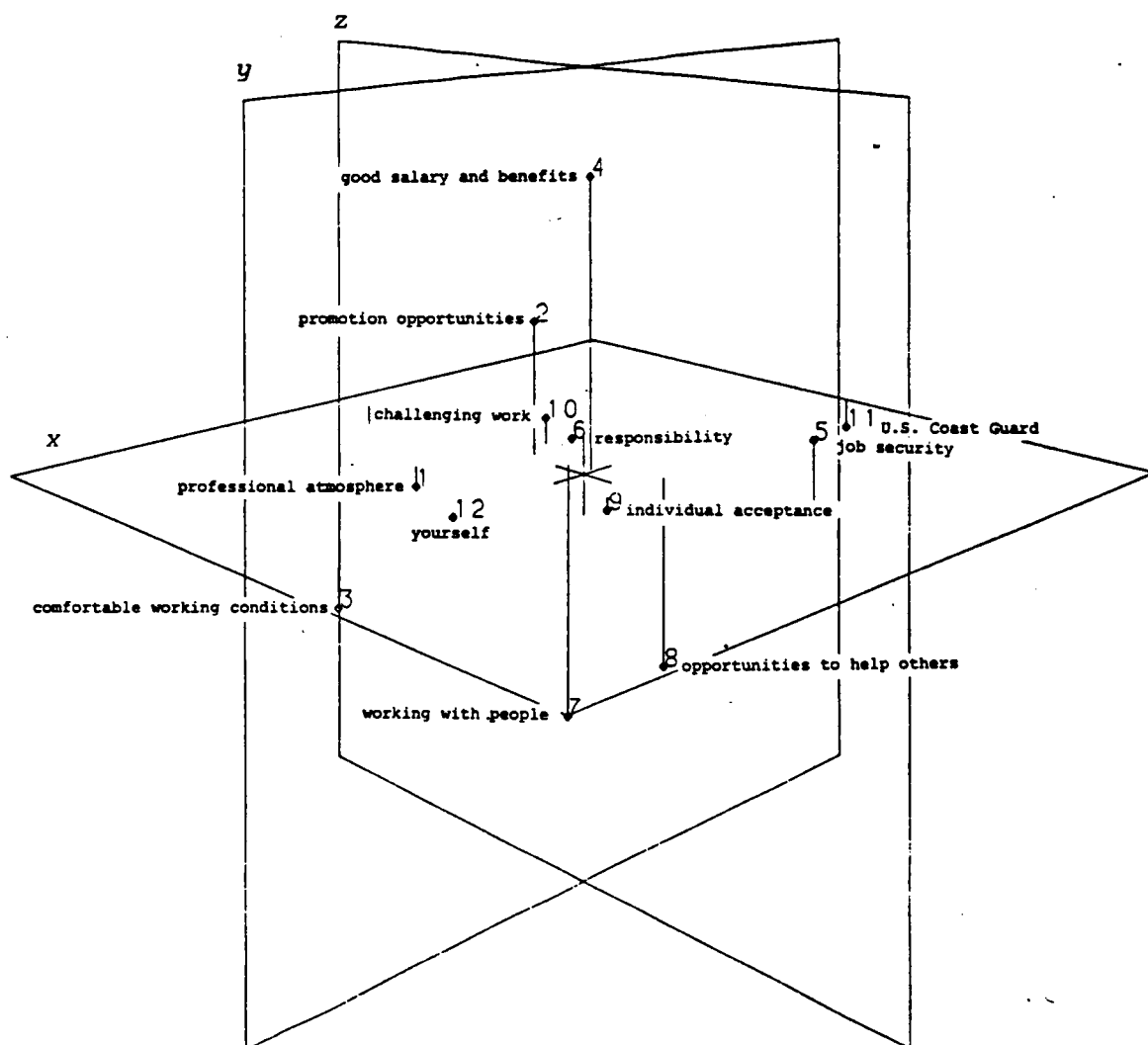


FIGURE IV

CONFIGURATION OF JOB CONCEPTS IN THREE DIMENSIONS:
 "DIFFICULTY OF WORKING CONDITIONS" (x AXIS),
 "TANGIBLE JOB REWARDS" (y AXIS) AND
 "JOB ACCOUNTABILITY (z AXIS)

"U.S. Coast Guard" and "yourself" remain in the middle of the core concepts with the "U.S. Coast Guard" tending slightly toward more altruistic attributes.

Message Selection

While the maps can be visually interpreted, sole reliance thereupon would be a methodological error. As has been previously stated, the maps are only able to project a portion of the available information.

It is essential in selecting messages, however, to include dimensional information not graphically represented in the maps. Galileo's "Automatic Message Generator" routine is able to evaluate the information in all 12 dimensions and select the most effective concepts for use in subsequent communications.

In selecting message content, the computer listed the best single concepts, two-concept combinations and three-concept combinations to be used. Additionally, the computer provided a measure of the concept's, or concept combination's, effectiveness in bringing "U.S. Coast Guard" closer to "yourself."

Table III provides the list of computer generated message solutions and an estimate of their effectiveness. The effectiveness estimate is a theoretical figure which indicates the percentage nearer "U.S. Coast Guard" will be to "yourself" after a successfully implemented communication campaign. As can be seen, the two-concept combination of

TABLE III

MESSAGE SOLUTIONS GENERATED TO IMPROVE THE
COAST GUARD'S IMAGE WITH BLACK COLLEGIANS

	Rank	Effect	Concept(s)
Single Concept Messages	1.	66.67	U.S. Coast Guard is . . . professional atmosphere
	2.	60.54	U.S. Coast Guard is . . . comfortable working conditions
	3.	53.74	U.S. Coast Guard is . . . good salary and benefits

Two Concept Messages	1.	89.73	U.S. Coast Guard is . . . promotion opportunities and com- fortable working conditions
	2.	83.99	U.S. Coast Guard is . . . comfortable working conditions and individual acceptance
	3.	82.95	U.S. Coast Guard is . . . comfortable working conditions and job security
	4.	81.23	U.S. Coast Guard is . . . comfortable working conditions and opportunities to help others
	5.	79.70	U.S. Coast Guard is . . . comfortable working conditions and working with people
	6.	72.90	U.S. Coast Guard is . . . professional atmosphere and comfortable working conditions
	7.	72.44	U.S. Coast Guard is . . . comfortable working conditions and good salary and benefits

Three Concept Message	1.	79.81	U.S. Coast Guard is . . . professional atmosphere, comfortable working conditions and good salary and benefits

"promotion opportunities" and "comfortable working conditions" would be the most effective message solution for attracting blacks to the Coast Guard's officer corps. Therefore, a communication campaign stressing these job attributes should improve blacks' perceptions of a job in the Coast Guard. The sort of campaign that could be employed using "promotion opportunities" and "comfortable working conditions" might show a black junior officer in a modern office setting working with a more senior black officer. As a matter of policy, however, other less effective concept combinations which conform more to institutional goals may be preferred. Even though a lower ranked message solution such as, "comfortable working conditions" and "opportunities to help others" is less effective, it may be more acceptable because the message communicates a more traditional theme. An advertising campaign depicting this message solution might show a black officer controlling a search effort from a "high-tech" rescue coordination center.

The predominance of "comfortable working conditions" in most all of the message solutions indicates that the Coast Guard should refrain from appeals that emphasize the antithesis. A currently used campaign showing a black flight officer in an arctic setting may appeal to the eye but not the emotions. The results of this study suggest that the "adventure" type of appeal is an inappropriate communication approach for attracting blacks.

Examination of Table III indicates that there are several alternative approaches that the Coast Guard could use to improve its image with blacks. In any case, it appears that an emphasis on "comfortable working conditions" in conjunction with one of the more tangible job attributes should be the focus of future communication efforts by the Coast Guard.

CHAPTER VI

STUDY LIMITATIONS

There were several methodological limitations present in this study. Some of the limitations contributed to a degradation of the study's internal and external validity. Each of the major limiting factors is identified and discussed briefly in the following paragraphs.

Inappropriate Interviewer

The fact that a white investigator conducted the study raises concerns about the openness and biasness of respondents during the open-ended interview research phase. Although identified as a limiting factor, no evidence of tainted responses was made apparent. It was felt that in-depth interviewer probing alleviated most of these concerns. Any replication of this study should be cognizant of possible problems in this area, however.

Combined Survey Techniques

Data from the Galileo-type questionnaires were gathered from both personal interview and telephone survey techniques. This was necessitated because of scheduling conflicts encountered by sample respondents. From the purist perspective, the combination of research methods introduced the possibility of extraneous variables confounding the data.

Such variables would not have been present had only one method been used. Faced with a trade-off in this case, between data purity and response rate, the investigator chose the latter as being more beneficial to the overall study.

Absence of a Control Group

The lack of a matched sample of white juniors and seniors at The University of Tennessee to act as a control for the group under study lessened the degree of internal validity present in this research. A major assumption presupposed by this study was that blacks have a different set, or hierarchy, of job attributes than do other groups. Although this assumption has a basis in the research literature (i.e., Woelfel, 1975), the presence of a matched white sample would have controlled for differences that may or may not exist between these racial groups.

Limited Population Representativeness

The results of this study can be generalized only to the population from which the sample was drawn. In this study, the population of black juniors and seniors at The University of Tennessee cannot be considered representative of any broader or more encompassing group. Thus, the external validity of this research is severely impaired.

CHAPTER VII

AREAS OF FURTHER RESEARCH

Within the limited scope of this study the Galileo method has demonstrated its effectiveness in deriving communication strategies. These strategies are based on state-of-the-art communication research rather than the combination of one person's best guess and market research as is typically the case in most advertising applications. Despite the insights provided by the Galileo method, however, more extensive research into the Coast Guard's minority officer recruiting problem is required. Three particular areas of study should be pursued. These include:

1. Replication of this study using a more nationally representative sample of black juniors and seniors. The majority of subjects used in this study represented a relatively homogeneous group from Tennessee. While the results of this study are cogent, they would be of greater validity if derived from a broader population.
2. Copy testing the effectiveness of recruiting literature and advertisements. Use of split runs to compare message strategies would be a cost effective method of measuring the capability of Galileo research.

3. Devising a similar study using black Coast Guard officers as subjects. A study of this nature could provide additional insights into the recruiting problem from a different perspective.

REFERENCE LIST

REFERENCE LIST

- Barnett, G. A., Serota, K. B., & Taylor, J. A. Campaign communication and attitude change: A multidimensional analysis. Human Communication Research, Spring 1976, 2, 227-244.
- Barnett, G. A., Wigand, R. T., Harrison, R. P., Woelfel, J., & Cohen, A. A. Multidimensional analysis. Human Organization, Winter, 1981, 40, 330-337.
- Bernardeau, C., Eisenman, R., & Purcell, A. U.S. Armed Forces minority officer procurement, technical report no. 75-23. Alexandria, VA: Human Resources Research Organization, 1975.
- Blumer, H. Symbolic interactionism: Perspectives and methods. Englewood Cliffs, NJ: Prentice-Hall, 1969.
- Card, J. J., Goodstadt, B. E., Gross, D. E., & Shanner, W. M. Development of a ROTC/army career commitment model: Final report, volume I. Palo Alto, CA: American Institute for Research, 1975.
- Card, J. J., Goodstadt, B. E., Gross, D. E., & Shanner, W. M. Development of a ROTC/army career commitment model: Final report, volume II. Palo Alto, CA: American Institute for Research, 1975.
- Fisher, A. H., Pappas, L. D., & Shepardson, S. Navy recruitment in junior colleges, technical report no. 76-1. Hay Associates Research: Washington, DC, 1975.
- Franklin, C. W. Theoretical perspectives in social psychology. Boston: Little, Brown and Company, Inc., 1982.
- Gillham, J., & Woelfel, J. The Galileo system of measurement: Preliminary evidence for precision, stability, and equivalence to traditional measures. Human Communication Research, Spring 1977, 3, 222-234.
- Hickman, C. A., & Kuhn, M. H. Individuals, groups and economic behavior. New York: Dryden Press, 1956.
- Meltzer, B. N., Petras, J. W., & Reynolds, L. T. Symbolic interactionism: Genesis, varieties and criticism. London: Routledge and Regan Paul, 1975.
- Miller, M. M. University of Tennessee, Knoxville, image study technical report. Knoxville, TN: College of Communications, 1984.

- Schiffman, S. S., Reynolds, M. L., & Young, F. W. Introduction to multidimensional scaling. New York: Academic Press, 1981.
- Stryker, S. Symbolic interactionism. London: The Benjamin/Cummings Publishing Co., 1980.
- Woelfel, J. A theory of occupational choice. Career Behavior of Special Groups. Columbus, OH: Charles E. Merrill Publishing Company, 1975.
- Woelfel, J. Foundations of cognitive theory: a multidimensional model of the message-attitude-behavior relationship. Message-Attitude-Behavior Relationship: Theory, Methodology and Applications. New York: Academic Press, 1980.
- Woelfel, J., Cody, M. J., Gillham, J., & Holmes, R. H. Basic premises of multidimensional attitude change theory: An experimental analysis. Human Communication Research, Winter 1980, 6, 153-167.
- Woelfel, J., & Fink, E. L. The measurement of communication processes: Galileo theory and method. New York: Academic Press, 1980.

APPENDIX

QUESTIONNAIRE

1. What do you plan to do after graduating from the University?
2. What type of job are you interested in?
3. Why are you interested in that type of job?
4. What kinds of things make that job attractive to you?
5. What kinds of things are you looking for most in a job?
6. What kinds of things make a job less desirable to you?
7. What does "public service" mean to you? Is it important to you when considering a job?
8. What does "job security" mean to you? Is it important to you when considering a job?
9. How important to you is "prestige" or "status" when considering a job?
10. What does "helping other people" mean to you? Is it important to you when considering a job?

11. What does "making money" mean to you? How important is it to you when considering a job?
12. Does "travel" appeal to you when choosing a job?
13. What do "opportunities for advancement" mean to you? How important are they to you when considering a job?
14. What do you think about the United States Coast Guard?

Male:

Female:

Age:

Major:

Collegiate Year:

QUESTIONNAIRE INSTRUCTION PAGE

In the first portion of this survey, you will be given two things and I want you to tell me how different you think they are using numbers. If you think they are very different, they would be very far apart and you would use a large number. If you thought they were very similar, they would be close together and you would use a small number. If they were exactly the same, you would say "zero" because there is no difference between them.

Just for an example, let's talk about the differences between kinds of fruit. We'll say that an apple and an orange differ by 100 units. If that's true, how different are a lemon and a lime?
(THEY CAN WRITE THE ANSWER ON THEIR EXAMPLE SHEET...)

Most people would say that a lemon and a lime are less different than an apple and an orange. Since we said that an apple and an orange differ by 100 units, the difference between a lemon and a lime would be less than that--maybe 30 or 40 units.

Let's try another one. Remember, an apple and an orange differ by 100 units. If that's true, how different are a grape and a watermelon?
(THEY CAN WRITE THE ANSWER ON THEIR EXAMPLE SHEET...)

Most of us would agree that a grape and a watermelon are more different than an apple and an orange. Since we said an apple and an orange differ by 100 units, the difference between a grape and a watermelon would be more than that--maybe 200.

(IF NECESSARY, try an apple and a pear = less than 100 AND
a banana and a peach = more than 100)

In general, that's how our questions work. You are given a ruler of 100 difference units and you compare other differences to that ruler.

For this survey, we'll say responsibility and job security differ by 100 units. Using that ruler, we would like for you to write in how different the following pairs of things are. You can use any number that you want. If you think the two things are more different than the ruler, then you would use a number larger than 100. If they were twice as different, you would say 200. If the two things were not as different as the ruler, you would use a number smaller than 100. And if you think the two things are exactly the same, you would say "zero."

There are no right or wrong answers--we just want to know your opinion.

I know these questions are a little unusual, but most people find them pretty easy after a little practice. You may turn the page and begin the questionnaire. When you finish, please give the questionnaire to me before you leave.

CAREER ATTRIBUTE QUESTIONNAIRE

EXAMPLE QUESTIONS:

If an apple and an orange are 100 units apart, how different are. . .
a lemon and a lime?

If an apple and an orange are 100 units apart, how different are. . .
a grape and a watermelon?

REMEMBER: Small numbers (less than 100) go with small differences and
large numbers (greater than 100) go with large differences.
No difference between things = 0
The same difference between things as the "ruler" = 100

CAREER ATTRIBUTE QUESTIONNAIRE

For this survey, "responsibility" and "job security" differ by 100 units. Using that ruler, please write in how different the following pairs of things are.

If they are more different than the ruler, you would use a number larger than 100. If they are less different than the ruler, you would use a number smaller than 100. If there is no difference between the two things, just write "0".

There are no right or wrong answers; we just want to know your opinion.

Remember, responsibility and job security differ by 100 units.
How different are . . .

0102 professional atmosphere	and promotion opportunities	_____
0103 professional atmosphere	and comfortable working conditions	_____
0104 professional atmosphere	and good salary and benefits	_____
0105 professional atmosphere	and job security	_____
0106 professional atmosphere	and responsibility	_____
0107 professional atmosphere	and working with people	_____
0108 professional atmosphere	and opportunities to help others	_____
0109 professional atmosphere	and individual acceptance	_____
0110 professional atmosphere	and challenging work	_____
0111 professional atmosphere	and the U.S. Coast Guard	_____

Remember, responsibility and job security differ by 100 units.
How different are . . .

0112 professional atmosphere	and yourself	_____
0203 promotion opportunities	and comfortable working conditions	_____
0204 promotion opportunities	and good salary and benefits	_____
0205 promotion opportunities	and job security	_____
0206 promotion opportunities	and responsibility	_____
0207 promotion opportunities	and working with people	_____
0208 promotion opportunities	and opportunities to help others	_____
0209 promotion opportunities	and individual acceptance	_____
0210 promotion opportunities	and challenging work	_____
0211 promotion opportunities	and the U.S. Coast Guard	_____

(please go to next page)

Remember, responsibility and job security differ by 100 units.
How different are . . .

0212 promotion opportunities	and yourself	_____
0304 comfortable working conditions	and good salary and benefits	_____
0305 comfortable working conditions	and job security	_____
0306 comfortable working conditions	and responsibility	_____
0307 comfortable working conditions	and working with people	_____
0308 comfortable working conditions	and opportunities to help others	_____
0309 comfortable working conditions	and individual acceptance	_____
0310 comfortable working conditions	and challenging work	_____
0311 comfortable working conditions	and the U.S. Coast Guard	_____
0312 comfortable working conditions	and yourself	_____

Remember, responsibility and job security differ by 100 units.
How different are . . .

0405 good salary and benefits	and job security	_____
0406 good salary and benefits	and responsibility	_____
0407 good salary and benefits	and working with people	_____
0408 good salary and benefits	and opportunities to help others	_____
0409 good salary and benefits	and individual acceptance	_____
0410 good salary and benefits	and challenging work	_____
0411 good salary and benefits	and the U.S. Coast Guard	_____
0412 good salary and benefits	and yourself	_____
0506 job security	and responsibility	_____
0507 job security	and working with people	_____

Remember, responsibility and job security differ by 100 units.
How different are . . .

0508 job security	and opportunities to help others	_____
0509 job security	and individual acceptance	_____
0510 job security	and challenging work	_____
0511 job security	and the U.S. Coast Guard	_____
0512 job security	and yourself	_____
0607 responsibility	and working with people	_____
0608 responsibility	and opportunities to help others	_____
0609 responsibility	and individual acceptance	_____
0610 responsibility	and challenging work	_____
0611 responsibility	and the U.S. Coast Guard	_____

(please go to next page)

 Remember, responsibility and job security differ by 100 units.
 How different are . . .

0612 responsibility	and yourself	_____
0708 working with people	and opportunities to help others	_____
0709 working with people	and individual acceptance	_____
0710 working with people	and challenging work	_____
0711 working with people	and the U.S. Coast Guard	_____
0712 working with people	and yourself	_____
0809 opportunities to help others	and individual acceptance	_____
0810 opportunities to help others	and challenging work	_____
0811 opportunities to help others	and the U.S. Coast Guard	_____
0812 opportunities to help others	and yourself	_____

Remember, responsibility and job security differ by 100 units.
 How different are . . .

0910 individual acceptance	and challenging work	_____
0911 individual acceptance	and the U.S. Coast Guard	_____
0912 individual acceptance	and yourself	_____
1011 challenging work	and the U.S. Coast Guard	_____
1012 challenging work	and yourself	_____
1112 the U.S. Coast Guard	and yourself	_____

College Major: _____

Collegiate Year: _____

Grade Point Average: _____ Above 3.5
 _____ 3.0 - 3.5
 _____ 2.5 - 3.0
 _____ Below 2.5

Age: _____

_____ Male _____ Female

THANK YOU FOR YOUR PARTICIPATION IN THIS RESEARCH.

VITA

Paul A. Preusse is a 1978 graduate of the United States Coast Guard Academy in New London, Connecticut. He holds a Bachelor of Science degree in Management and Economics from that institution. After five years of active duty he was selected by the Coast Guard to attend graduate school at The University of Tennessee, Knoxville, in September 1983. There he received a Master of Science degree in August 1985.

Lt. Preusse returned to active duty with the Coast Guard as the Public Affairs Officer at the Coast Guard Academy. He is a member of Kappa Tau Alpha and the U.S. Naval Institute.