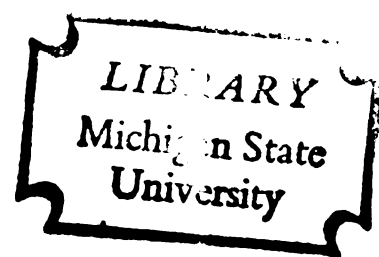


A GUTTMAN FACET ANALYSIS OF
THE RACIAL ATTITUDES OF
REHABILITATION COUNSELOR TRAINEES

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
ARTHUR EUGENE DELL ORTO
1970



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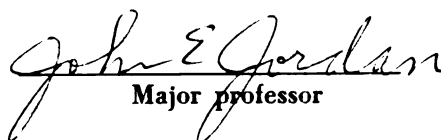
A GUTTMAN FACET ANALYSIS OF THE RACIAL ATTITUDES
OF REHABILITATION COUNSELOR TRAINEES

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ABSTRACT

A GUTTMAN FACET ANALYSIS OF THE RACIAL ATTITUDES OF REHABILITATION COUNSELOR TRAINEES

By

Arthur Eugene Dell Orto

The significance of racial attitudes for the counselor has been expressed by both educators and practitioners. This dissertation¹ was an outgrowth of this concern as well as an attempt to investigate dimensions and components of racial attitudes from the Guttman facet theory approach.

Methodology

A total of 70 rehabilitation counselor training program coordinators were contacted to see whether they were willing to participate in the study. Of these 59 agreed, 8 did not respond, and 3 did not agree.

Those who agreed to participate were mailed the general attitude behavior scale (ABS: BW/WN-G) developed by Hamersma and Jordan (1969), which was a facetized scale based on the theory of Guttman (1966).

For this study there were two versions of the scale: one for Blacks, ABS: B/W-G, and one for Whites, ABS: W/N-G. These were identical forms of the scale except for the term "Black," which was used in the ABS: B/W-G, and the term "Negro," which was used in the ABS: W/N-G. This procedure was followed in order to use a term which designated race in a manner that was acceptable to the respective race.

Analysis

The following analytical procedures were performed on the data: correlational (Pearson r), multivariate analysis of variance, and a simplex approximation test.

Results

Results of the hypotheses tested by correlational techniques were as follows:

1. Amount of education did not show a strong relationship to favorable attitudes toward members of the opposite race.
2. Age was not related to attitudes for Whites, but it was for Blacks at certain levels of the ABS: B/W-G.
3. Efficacy, which tested man's sense of control over his environment, was related to positive attitudes for Whites at two levels of the ABS: W/N-G, while no relationship for Blacks between efficacy and attitudes was found.
4. Enjoyment of contact was the most significant predictor of favorable attitudes for Whites.
5. Reported prejudice yielded significant results, while urbanity did not.

The multivariate analysis of certain hypotheses had the following results:

1. There was no significant difference on the attitudinal score based on religious or political affiliation.
2. A significant difference was found for race, geographic location, and sex.

The limitations of this study and recommendations for further research were also presented.¹

¹This research is related to a larger cross-cultural study of racial/ethnic attitudes under the direction of John E. Jordan, College of Education, Michigan State University.

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By

Arthur Eugene Dell Orto

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PREFACE

This study was one in a series jointly designed by several investigators (Erb, 1969; Hamersma, 1969; Jordan, 1969; Maierle, 1969) as an example of the project approach to graduate research. A common use of instrumentation and theoretical material, as well as technical and analytical procedures, was both necessary and desirable.

ACKNOWLEDGEMENTS

Completion of the doctoral dissertation is a Janus-headed situation; the attainment of the golden fleece and the prospects of new horizons precipitates the termination of old goals and separation from long-standing friendships.

The path does not look as rough in retrospect, as it is highlighted by the buttresses of professors, friends, and family. To my major professor, John E. Jordan, I acknowledge his tremendous support and encouragement during the development and writing of the dissertation.

The role of Gregory Miller was a most significant one, for it was as his graduate assistant that I was permitted to devote time to this project. I also wish to express my appreciation to Richard E. Johnson, who kept up my morale not only during dissertation but also during doctoral studies.

The roles of Maryellen McSweeney, a wonderful teacher and a dear friend, were many in my life as a student. Her help and guidance in the statistical aspects of this project are deeply appreciated. I wish to thank my friend, Howard Teitelbaum, without whose assistance this thesis could not have been completed. The freedom Larry Messe permitted in the development of this study was a key factor in its completion.

"No man is an island," and a dissertation tends to make this poignantly clear. Through the heartache and joy of this study, my

friends, N. Kenneth La Fleur and David B. Stugart, made the days brighter. No acknowledgement is adequate for the efforts my wife Barbara has made during the past years and throughout the preparation of this thesis. I also wish to thank my parents, Marian and Arthur Dell Orto, whose sacrifices made it possible for me to reach this goal.

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CHAPTER I

INTRODUCTION

The present research examined racial attitudes of a select population; rehabilitation counselor trainees, by a comparatively new analysis method, Guttman facet analysis. Concern about racial attitudes and their concomitant effects is expressed by many in both government and education. This study was an outgrowth of this concern.

Problem

Racial attitudes exist in American society which affect the rehabilitation process. The rehabilitation counselor, a product of society, is a key factor in this process. Ayers (1969) pointed out the significance of racial attitudes in the rehabilitation process when he stated:

Since many rehabilitation workers live in protected and isolated environments and may support the continuation of such racist attitudes, it is incontestable that such attitudes transfer themselves into their professional endeavors (pp. 55-56).

A similar thought was expressed by Westman (1968), who stated:

Not so apparent, but perhaps even more important, barriers may be found within us, the vocational rehabilitation "professionals" who attempt to rehabilitate disabled persons--the barriers we erect by the attitudes and values we adopt and the nature of the assumptions we make about people we serve (p. 23).

The present study attempted to examine the dimensions of the rehabilitation counselor trainees' racial attitudes in order to understand better what these attitudes were and what factors were related to them.

Purpose

The purpose of this study was two-fold: substantive and methodological. The substantive purpose was to investigate relationships between constructs, such as contact, demographic factors, geographic location, and attitudes of rehabilitation counselor trainees. The methodological purpose was to use a particular research method, Guttman facet analysis, in a study of racial attitudes.

Need

The need for this research had its genesis both in the social crisis facing our country today and in the counseling crisis facing rehabilitation counselors working with the culturally different. The social crisis was presented in Black and White by Brink and Harris (1967):

The year 1966 became not the year of deliverance for the Negro, but the year when it dawned on all Americans--Black and White--that equality for the Negro was a far greater problem than anyone had imagined, and its solution was probably more remote than ever (pp. 16-17).

The counseling crisis regarding racial attitudes was highlighted by Ayers (1969):

If rehabilitation workers are going to increase their efforts in rehabilitating the handicapped black and provide "action" rather than lip service, they are going to have to examine and change some of their attitudes (p. 57).

The socially compelling question is whether White middle-class counselors, with negative racial attitudes, can understand and work with racially different clients. As a consequence of this concern, the present study attempted to facilitate the understanding of these racial attitudes and their determinants.

Hypotheses

If one postulates multiple dimensions of racial attitudes as well as multiple predictor variables, it becomes necessary to consider several hypotheses.

The research hypotheses tested in this study are as follows:

Attitudes and Education

H-1: Amount of education is positively related to favorable attitudes toward members of the opposite race.

Attitudes and Age

H-2: Age is negatively related to favorable attitudes toward members of the opposite race.

Attitudes and Efficacy

H-3: There is a positive relationship between efficacy scores and positive attitudes toward members of the opposite race.

Attitudes and Contact

H-4: Favorable attitudes toward members of the opposite race are related to (a) kind of contact, (b) amount of contact, (c) ease of avoidance of contact, (d) gain from contact, and (e) enjoyment of contact.

Attitudes and Religion

H-5: There is a significant difference between attitude scores of religious groups.

Attitudes and Reported Prejudice

H-6: There is a positive relationship between reported prejudice and racial attitude scores.

Attitudes and Group Membership

H-7: There is no difference between political affiliation groups' attitude scores toward the opposite race.

Attitudes and Urbanity

H-8: Persons from urban areas have more positive attitudes toward members of the opposite race than persons from rural areas.

Attitudes and Race

H-9: There is a difference between the attitudes of racial groups.

Attitudes and Geographic Location

H-10: Geographically, there is no difference in the racial attitudes of rehabilitation counselor trainees toward members of the opposite race.

Attitudes and Sex

H-11: There is a difference in the racial attitudes of males and females.

Simplex Approximation

H-12: The ABS: BW/WN will form a Guttman Simplex for each of the racial groups.

Overview of Thesis

The thesis has six chapters, which are organized in the following manner:

In Chapter I the problem, purpose, need for the research, and the hypotheses are stated.

In Chapter II the review of the literature is presented in several sections. An introduction describes some of the issues in the study of racial attitudes and is followed by various definitions and comments upon the value of attitude research. The next section deals with the role of attitudes in the life of the counselor and some difficulties encountered when working with racially different clients. In the section on research related to major variables, various positions are presented which relate to contact, age, education, geographic location, urbanity, sex, efficacy, self-report of prejudice, religion, race, and political affiliation.

In Chapter III an overview of early attitude measurement followed by a section on Guttman facet theory and the development of the Attitude Behavior Scale, ABS: BW/WN-G are presented.

In Chapter IV the population, procedures, and research hypotheses, along with the instrumentation and analysis, are stated. This is followed by a description of the various analytical procedures used.

In Chapter V the results of the analysis of the data are presented.

In Chapter VI a summary of the study is presented, and the results of the study are discussed. This is followed by a section which presents recommendations for further research. The limitations of the

study and various analytical procedures that may be useful in future studies of this nature are included.

The final section of the study contains tables, appendixes, and the instrument used in the study.

CHAPTER II

REVIEW OF THE LITERATURE

Attitudes have been considered from various points of view. Some researchers have been concerned with understanding attitudes, while others have examined their modification. Interest in attitude research exists in many fields, such as psychology and sociology. Despite this diversity, disciplines examining attitudes tend to agree on the complexity of attitude research and the need for further study.

As previously stated, many believe that considerable research has been done in the area of attitudinal measurement and that now the emphasis must be placed more in the direction of attitude modification rather than understanding attitudes. The difficulty in this approach is that past research has considered attitudes primarily from a unidimensional viewpoint. It is hoped that when the concept of multidimensionality is shown to exist, further research will be developed which will enable modification of attitudes to be founded upon these implications of multidimensionality.

An example of the multidimensionality of an attitude is explored in a later section dealing with contact and how it affects racial attitudes. It is pointed out that contact may affect a person's cognitive disposition toward an attitude object while not changing his affective disposition. Findings of this nature are significant, for in counseling, premature action based upon faulty attitudinal knowledge may

result in erroneous hypotheses; such as, "to change racial attitude, any kind of contact with the attitude object is sufficient."

Definitions of Attitudes

Attitudes have been defined in various ways. Allport (1967) presented a list of definitions, some of which are as follows:

An attitude is readiness for attention or action of a definite sort (Baldwin, 1901-1905).

. . . a tendency to act toward or against something in the environment which becomes thereby a positive or negative value (Bogardus, 1931).

. . . a residuum of experience, by which further activity is conditioned and controlled. . . . We may think of attitudes as acquired tendencies to act in ways toward objects (Krueger and Reckless, 1931).

. . . a mental disposition of the human individual to act for or against a definite object (Droba, 1933).

. . . a more or less permanently enduring state of readiness of mental organization which predisposes an individual to react in a characteristic way to any object or situation with which it is related (Cantril, 1934).

. . . a mental and neural state of readiness organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related (Allport, 1967).

Mehrens and Lehmann (1969) define attitudes as predispositions to respond overtly to social objects. They also presented the following attitudinal definitions:

An attitude is "a syndrome of response consistency with regard to social objects (Campbell, 1952)."

. . . an enduring system of positive or negative evaluation, emotional feeling, and pro or con action tendencies with respect to a social object (Krech, 1962).

A common fiber in these definitions is to regard an attitude as a "predisposition" to behavior. This view is one of two primary ones found in the literature. The other view is that of Guttman (1950), who

defines an attitude as a "delimited totality of behavior in respect to something (p. 51)." In his approach a racial attitude is not merely a predisposition to act toward the attitude object, i.e., Black or White man, but also a "delimited" totality of acts that a person has performed with respect to that attitude object; i.e., attitude is behavior.

Guttman considered an attitude to have at least four levels of strength: stereotype, norm, hypothetical interaction, and personal interaction. Jordan (1968) expanded these four levels to six: stereotypic, societal norm, personal moral evaluation, personal hypothetical behavior, personal feelings, and personal action.

The concept of levels of attitude strength is a significant development in attitude research, since it enables the researcher to investigate the multidimensionality of an attitude, which represents the levels of an attitude and reflects at which level attitudes may change.

Value of Attitude Research

Jordan (1970) stated that before starting to develop new attitudes or to change attitudes, it may first be necessary to try to assess existing attitudes. There is value in the study of attitudes, since such research contributes to our understanding of their determinants and their modification. Yuker (1965) stated:

An attitude can be defined as one type of predisposition toward behavior. Because this is so, by finding out what a person's attitudes are, we can gain information that will help us both to understand and to predict a person's behavior (p. 15).

Mehrens and Lehmann (1969) stated:

Attitudes are learned. Because they are learned, they can be changed, if it is deemed necessary. However, one cannot

alter, modify, or reinforce something until he knows the status of that something (p. 257).

Allport (1966) also commented upon the value of studying attitudes:

As we have said, the attitude unit has been the primary building stone in the edifice of social psychology. It has, of course, had many critics. Especially in recent years, learning theorists, field theorists, phenomenologists have attempted to dislodge it. But it is questionable whether their combined efforts can do more than refine the concept for future use. After all, social behavior reflects so much organization, recurrent and habitual expectancy, that the doctrine of attitude (or some close equivalent) is necessary. Without some such concept, social psychologists could not work in the fields of public opinion, national character, or institutional behavior--to mention only a few areas; nor could they characterize the mental organization of social man. The term itself may not be indispensable, but what it stands for is (p. 20).

The emphasis of the present study was upon understanding the dimensionality and determinants of racial attitudes rather than their modification.

Attitudes and the Counselor

Researchers have been concerned with the significance of attitudes in both the counseling relationship and in the life of the counselor (Ayers, 1968; Dell Orto, 1970; Gross, 1969). Anderson (1969), commenting on problems of working with the disadvantaged, quoted Gross as saying:

A counselor may deceive himself into believing that although he may not approve of the client's behavior, he still accepts him as a fellow human being who can improve (p. 112).

Gross (1969) believed that far from accepting the client, many counselors did not, in spite of their best attempts to do so. Patterson (1966) also commented on the role attitudes play in counseling when he stated:

The counselor can act as an important influence in this struggle back to confidence and self-respect by treating the client as an independent worthy of respect, a person deserving of consideration, whose ideas, feelings, and desires are important (p. 49).

Is such an attitude possible from a counselor who does not see the racially different client in an egalitarian manner but, rather, as an inferior being who must be dealt with and then avoided? It seems incongruous that White counselors who avoid racially different clients in their social life, living areas, and other activities will suddenly become understanding and interested in the plight of these clients during an eight-to-five working day. The incongruity of this situation was also highlighted by Anderson (1969):

Discussions with counselors in various agencies indicate that white counselors tend to be extremely hampered in discussing race and its implications with their clients. Black counselors, on the other hand, can often handle the feelings of their clients in this area very openly.

Even the most ardent civil rights worker may harbor private feelings that Negro anger, once unleashed, may become uncontrollable and irrational [i.e., directed at him]. Such fears may also belong to the white case worker.

With Negroes, however, even the most unbiased white worker does not enjoy the comfort of feeling guiltless for two reasons: (1) as a member of the white community, he must assume guilt for society's wrongs and is only unsure how much to accept; (2) if he is at all honest with himself, he must sense the reality that in society today, no white person can have escaped becoming imbued with some prejudice and that his individual symptoms may be far more apparent to the client than to himself (p. 114).

Anderson's view emphasizes that the attitudinal disposition of a person is not merely a tangential aspect of his personality but, rather, it is an integral part of his life. It had been learned, performed, and reinforced throughout his life by his peers, family, and strangers.

The review of the literature indicated that the area of racial attitudes is a more comprehensive entity than many care to recognize and

that its understanding and alteration are not consequent to forced legislation or integration but in a recognition of the multidimensionality of attitudes. This recognition deals with the nucleus of the problem instead of the periphery.

Attempts have been made to identify the person who can work effectively with a racially different population (Chifton, 1954; Fey, 1955). McClain (1964) indicated the difficulties and the need for further research in identifying successful counselors when he said:

Although a large number of studies that have tried to find measures of personality related to success in counseling have been disappointing, an increasing number of investigations have been able to find measurable characteristics associated with counselor effectiveness. Hill and Green (1960) and Carkhuff (1966) have published surveys of this research. These studies have ranged from the use of a single dimension of personality to whole batteries of instruments. In general, the reports point to the complexity of the problem and stress the need for more research that can help educators and employers of counselors identify those candidates who are likely to be successful (p. 492).

Turner (1964) suggested that to work with the socially handicapped, one must first establish a meaningful relationship with the client; this presupposes knowledge of what behavior is common, accepted, approved, and disapproved in the culture of the client. How many White middle-class counselors with negative racial attitudes can understand and work with the racially different client?

Anderson (1969), quoting a study done by Philips (1959), indicated that Black counselors had better results when working with Black clients than White counselors did:

To white counselors, the deceptive and defensive techniques used by the pupils throughout the interview were effective. They did not allow the counselors to penetrate their social barriers, to locate the causes of their behavior. The pupils' ability to misdirect and counter-reflect

responses and meanings, and their excessive use of gestures and unrelated verbal responses completely lost the counselors.

In contrast, the Negro counselors did not find it difficult to neutralize the counseling atmosphere during the sessions. They found the pupils relaxed and willing to discuss the whole school situation and other factors which caused their behavior. The social racial barrier did not appear in any of the sessions. The subjects expressed their present problems--the small pressures placed upon them by the principal and teacher--in relation to their future fears concerning their limited role in society (p. 118).

The above illustrates how the racially different client can lead and manipulate the White counselor while the same situation is more difficult with the Black counselor. If this situation exists on the basis of color alone, it seems it would be magnified by a counselor who was not only racially different but who had also manifested negative attitudes toward his clients.

The need for additional skills in working with the culturally different was indicated by Hamilton (1960):

Whatever the setting, no matter how severe the disability or how limited the goals may be, counseling will involve skills in perception, skills in understanding, and skills in the acceptance of subtle psychological cultural relations. Counseling in different settings may, of course, require additional skills of one type or another (p. 13).

With the redefining of the counselor's role and the new functions and approaches he must undertake to work with the culturally different, the attitudes of the counselor toward his client appear to be significant factors in this role. Ayers (1968) quoted Acker as saying:

Racism, the attitudes, and more significantly, the behaviors it implies, is clearly a basic component of the problems of our society and, thus, the populations from which our clients come. We cannot be really effective as practitioners or valid as a profession without both understanding it and becoming actively committed to its exposure and eventual elimination (p. 57).

Research Related to Major Variables

Contact

Two main points of view exist concerning the effect that contact has upon racial attitudes. One position states that contact does affect attitudes, the other that it does not. Another consideration is that contact may affect the racial attitudes of a person cognitively but not affectively. This was the finding of Harding and Hogrife (1952), who posited that equal-status contact changed Whites' willingness to work with Blacks but this association was not carried over into social activities. An opposing result was that of Lombardi (1963), who found an insignificant relationship between contact and racial attitudes.

The research of O'Connor (1969) suggests that current approaches to the problem of ensuring civil rights has failed to reach the root of the matter because it does not take into consideration the real and imagined social and economic threats which are important factors in the maintenance of racial prejudice. Consequently, an impasse was created in which stereotypes thrived and violence brewed. Programs making desegregation profitable and attractive for the Black and White communities alike are desperately needed.

The concept of threat, to both Black and White members of society, is based in part upon the "nonequality" status of contact which racially different people have in American society today. This condition may also permeate the counseling relationship when racially different parties are involved as a result of accentuated racial, perceptual, and value differences in such a one-to-one setting.

The significance of value change and the dynamics involved therein was presented by Chaffee and Lindner (1969), who replicated earlier findings that a person's evaluation of an object changes as a function of its salience to him, its relationship to other objects, and the reduction of cognitive dissonance. Since these effects often do not carry over to corresponding changes in a person's behavior toward an attitude object, it was suggested that research limit itself to value change and the cognitive processes that precede it, rather than trying to predict behavioral change directly from value change. This implies that while a person may understand his position regarding a particular attitude object, it may not be sufficient to cause a change in his behavior toward that object.

Other researchers note that contact with an attitude object produces a positive attitude (Brophy, 1964; Carter and Mitchell, 1955-1956). The conflicting results of various studies seem to be attributable to the great variation in how attitudes are measured and at what level, i.e., stereotypic or personal action.

Some researchers attempted to go beyond amount of contact per se and pointed out that the quality of contact was an important factor in attitude change (Cook and Selltitz, 1955; Allport and Kramer, 1946; and Kelly, Ferson, Holtzman, 1958). More recent research dealing with the relationship between contact and racial attitudes and the quality of interracial contact was that of Jeffres and Ransford (1969) on data collected shortly after the Watts riot:

It was found that prior social contact with Negroes is an important determiner of White attitudes toward the disorder. Those lacking contact are more fearful of Negroes, cite more outside agitator explanations, evidence more feeling of increased social distance, and voice more punitive responses

than those having contact. This study suggests that relatively tolerant people who have experienced social contact with Negroes will be more likely to support the recommendations of the President's Commission on Civil Disorder than tolerant people lacking social contact (p. 312).

The key word in the above quotation was social contact, for this implied an equal relationship rather than a nonequal one, vis-a-vis, master-slave relationship.

Investigators have reported positive correlations between amount of social interaction with Negroes and diminished prejudice in White subjects, but there was little information concerning the relative value of specific kinds of social contact with respect to change of attitudes toward the Negro. Kelly, Ferson, and Holtzman (1958) stated that "social contact per se is not a determining factor of attitudes toward the Negro." The more the quality of social interaction involved an active, friendly, personal approach to the Negro on the basis of implied social equality, the more favorable was the attitude.

Allport and Kramer (1946) concluded that among college students, considerable contact of any kind with Negroes seemed to be associated with less prejudice against the Negro, but equal-status contacts were particularly favorable to the reduction of prejudice.

One reason that may be posited to explain why equal-status contact should lessen prejudice is that a person with no knowledge or only casual knowledge of a minority group becomes easy prey to secondhand stereotypes.

Age

The effects of aging upon racial attitudes are not clear. Allport and Kramer (1946) found that aging results in negative racial

attitudes. Similar results were reported by Mussen (1963) and Harris (1969), while Carter and Mitchell (1955-1956) and Holtzman (1956) found that with an increase in age, there was an increase in positive racial attitudes.

Education

Samelson (1945) reported that college graduates in all regions of the country customarily gave less prejudiced responses than people without college education in the same regions.

Holtzman (1956) found that the more advanced the college student was, the more likely he was in favor of abolishing segregation (which may be interpreted as a more positive racial attitude). Consequently, seniors were found to be more tolerant regarding their racial attitudes than freshmen. Allport and Kramer (1946) stated that college students are disposed to give less prejudiced responses than a more unselected population. This finding was similar to that of Harris (1969), who stated that the more education one has, the less prejudiced he is. Social mobility may be posited to explain these findings: with an increase in education, a person has upward social mobility, removing himself from the Black man, and is no longer threatened on his job or in his neighborhood by the Black man's presence. Therefore, he can "afford" to be less prejudiced and hold a more positive attitude toward a remote attitude object.

Geographic Location

Caution must be exercised in discussing the racial attitudes of residents of various geographic locations; the reason for this is with

the recent population shifts and racial developments, old stereotypes may not hold true.

These results point clearly to a new coalition on racial matters in the United States. An all-white opposition to nearly any efforts in behalf of blacks exists among lower-middle income, older, and less well-educated whites, particularly those who live in small towns and rural areas. Significantly, the differences between the attitudes of this section of white society in the North and South have now all but been wiped out (Harris, 1969).

Considering such recent findings, one has to be aware of generalizations about attitudes based solely on geographic location. While examination of research indicates the South as having more unfavorable racial attitudes than the North, one must also be aware of the various methods and populations used in such research. For example, Kelly, Ferson, and Holtzman (1958) used a sample of 547 University of Texas undergraduates. Larson, Ahrenholz, and Graziplene (1964) also used undergraduates at the University of Alabama. In citing the research of Kelly, Ferson, and Holtzman (1958); Weller (1964); Brink and Harris (1964); Larson, Ahrenholz, and Graziplene (1964); Campbell and Suchman (1968); and the report of the National Advisory Commission on Civil Disorders (1968), Hamersma (1969) stated that:

These studies consistently reveal that the South generally holds a more unfavorable view of the Negro than elsewhere in the United States (p. 42).

Research by Weller (1964) and Brink and Harris (1967) also indicated that the South had a more negative attitude toward the Black man than other areas of the country. These findings may not be applicable to the unique population of rehabilitation counselor trainees because of their educational level and the homogeneity and social service orientation of the vocational area.

Urbanity

Holtzman (1956) found no differences in attitudes toward desegregation expressed by students from rural areas and urban areas.

Holtzman also noted a relationship between intolerance of segregation and the prevalence of the Negro in the respondent's home region; i.e., the more Negroes, the less tolerance. Brink and Harris (1967) also found that rural areas were more negative than urban areas.

Sex Differences

In a very early study Sims and Patrick (1936) reported that women were significantly more favorable toward the Negro than were men. The limitations of this study were a small sample and different kinds of schools--large Northern versus small, private Southern.

Allport and Kramer (1946), in comparing sex differences, found males to be more prejudiced than females. Pettigrew (1959) reported that women in the South were significantly more prejudiced than men in the South, while no significant difference was found between sexes in the North. Bogardus (1959) reported that women showed more social distance toward the Negro than did men.

Efficacy

Erb (1969) reviewed the "Life Situations" scale (Appendix B) and its Guttman scale characteristics. Intensity items were added to Wolf's (1967) original nine content items in the ABS: BW/WN. This scale was designed to measure attitudes toward man and his environment. Wolf described the scale in the following quote:

The continuum underlying this scale ranged from a view that man is at the mercy of his environment and could only hope to secure some measure of adjustment to forces outside of himself, to a view that man could gain complete mastery of

his physical and social environment and use it for his own purposes (p. 109).

This variable was labeled "Efficacy" by Jordan (1969), since the scale purports to measure attitudes toward man's effectiveness in relation to his natural environment.

Hamersma (1969) found a positive relationship between scores on the efficacy variable and favorable attitudes toward the opposite racial group. It is interesting to note that Allport and Kramer (1946) found those who were nonefficacious had a jungle philosophy of life--viewing the world as basically evil and dangerous--and were generally prejudiced.

Religion

Some research has shown that Jews are more tolerant than Catholics and that Catholics are more tolerant than Protestants; that Jewish students are more favorable toward integrated facilities than are Catholic students; and that Catholics are more favorable toward integration than Protestants (Larson, et al., 1964).

Holtzman (1956) found Jewish students to be more tolerant of non-segregation than Catholics and Catholics to be more tolerant than Protestants. These results differed from those of Allport and Kramer (1946) and Rosenblith (1949), who found anti-Negro prejudice higher among Roman Catholics than among Protestants.

Other researchers in this area are Merton (1940), who found that Catholics tended to be more prejudiced than Protestants, with Jews and people claiming no religious affiliation the least prejudiced of all, and Adorno (1950) and Spoerl (1951), who found little or no differences between Catholics and Protestants.

Attitudes of Blacks toward Whites
and Whites toward Blacks

Past research has indicated that Blacks are more positive toward Whites than Whites are toward Blacks (Brink and Harris, 1964). Bogardus (1958) also indicated a trend toward more positive racial attitudes in this country. These general positive racial attitudes may currently be undergoing a change due to the emphasis placed on developing a Black identity and the White community's reaction to this identity search.

Political Affiliation

Political affiliation may be considered as an indication of the type of attitudes a person may have. Negroes have looked to the Democratic party as having goals similar to their own and the party which would do the most for them. Brink and Harris (1967) stated:

Commitment to major parties, by and large, means commitment to the Democratic party. By 1966, Negro registration in the Democratic column totaled 79 per cent, compared with 10 percent Republican, and 5 per cent Independent. The remaining 6 per cent failed to express a view in the Newsweek survey. . . . More significant than mere enrollment, however, is the expression of faith Negroes give to the Democratic party as the political organization that will help them. . . . The pro-Democratic sentiment is also a reflection of the deep distrust Negroes have for Republicans (pp. 92-93).

The above may indicate that Blacks see themselves as having more in common with the Democratic party and its membership than with the Republican party and its following.

CHAPTER III

INSTRUMENTATION

One of the most significant early studies was done by Adorno (1950), who developed the Ethnocentrism Scale (E) and the Facism Scale (F). The purpose of the E scale was to discover any tendency in the individual to be ethnically centered, to be rigid in acceptance of the culturally alike, and to reject the unlike. The F scale was an attempt to measure the potentially antidemocratic personality.

Erb (1969) stated there were two major criticisms of this study. Shels (1954) and Rokeach (1960) claimed that the researchers did not study general authoritarianism but, in fact, studied only "right" authoritarians and neglected to study those persons who were authoritarians but held to middle or leftist political views. Shels called for a study of "left" authoritarianism, while Rokeach focused on the general characteristics of all forms of authoritarianism. Secondly, Peabody (1966) stated that the Authoritarianism Scales did not measure what they purported to measure but measured a tendency on the part of the subject to agree with an item regardless of its content.

Bettelheim and Janowitz (1950) attempted to relate factors of anti-Semitism to anti-Negro attitudes and found that lack of ego strength was a key factor in prejudiced attitudes.

Although these studies produced interesting results, inadequate measuring instruments remained a problem. With the advent of the work of Guttman (Stouffer, 1950), the first major attempt to free attitude

research from being limited to the stereotypic level was made. This attempt took the form of unidimensional scalogram analysis. Guttman followed the development of scalogram analysis with the new approaches of facet design and nonmetric analyses. His advances in the area of attitude measurement are, apparently, not well known and/or not accepted in many areas of the research world, for Jordan (1968) found in a review of recent literature, that the majority of the studies were based on items from the stereotypic level.

Guttman Scaling Procedures

While recognizing the contribution of Guttman to the methodology of questionnaire construction and analysis, Selltiz, Jahoda, Deutsch, and Cook (1959) pointed out the following qualifications that should be kept in mind which are related to the use of unidimensional scales:

1. Such a scale may not be the most effective basis either for measuring attitudes toward complex objects or for making predictions about behavior in relation to such objects;
2. A given scale may be unidimensional for one group of individuals but not for another.

Commenting on the first reservation, these authors stated that no single scale may give an accurate reflection of an individual's attitude toward a complex concept; they further stated that a complex measure may be needed as a basis for predicting complex behavior. Regarding the second reservation, these same authors indicated that unidimensionality may be a property of a measuring instrument rather than of the patterning of an attitude among a given group of individuals.

This second criticism of Guttman scaling does not apply to the present study, since the ABS: BW/WN-G is a six-level multidimensional scale developed by Jordan and Hamersma (1969).

Guttman's Four-Level Facet Attitude Structure

In facet design, Guttman promulgated a method that examined various semantic factors, or "facets," that are involved in ordering a particular response to an individual item. Commenting on the work of Bastide and van den Berghe (1957), Guttman (1959) distinguished three "facets" involved in a particular attitude response. Guttman's facets are presented in Table 1. See Appendix A for definitions of facet and other terms.

TABLE 1
BASIC FACETS USED TO DETERMINE COMPONENT STRUCTURE
OF AN ATTITUDE UNIVERSE

(A) Subject's Behavior	(B) Referent	(C) Referent's Intergroup Behavior
a ₁ belief	b ₁ subject's group	c ₁ comparative
a ₂ overt action	b ₂ subject himself	c ₂ interactive

Guttman labeled the first of the two options, or "elements," of each facet as the "weaker." A particular item was as strong as the number of strong elements which appeared in it. Any given statement contained one element from each and every facet, and these statements could be grouped into profiles of the attitude universe. Since there were three facets, any statement had the possibility of having none, one, two, or three strong facets--a total of four combinations. Bastide and van den Berghe's research (1957) was facetized by Guttman into the four combinations (or levels) shown in Table 2.

TABLE 2

GUTTMAN FACET PROFILES OF ATTITUDE SUBUNIVERSE

Subuniverse		Profile		
1	Stereotype	a_1	b_1	c_1
2	Norm	a_1	b_1	c_2
3	Hypothetical Interaction	a_1	b_2	c_2
4	Personal Interaction	a_2	b_2	c_2

A common meaning for the ordering was suggested by Guttman: in each case a progression from a weak to a strong form of behavior of the subject toward the attitude object. The more subscript "2" elements a profile contained, the greater the strength of the attitude.

Guttman (1959) proposed that the semantic structure of the attitude universe would provide a social-psychological basis for predicting the structure of the empirical intercorrelations matrix of the four levels:

One cannot presume to predict the exact size of each correlation coefficient from knowledge only of the semantics of universe ABC, but we do propose to predict a pattern or structure for the relative sizes of the statistical coefficients from purely semantic considerations (p. 324).

Guttman expressed this relationship as the "contiguity hypothesis," which states: Subuniverses closer to each other in the semantic scale of this definition will also be closer statistically. In other words, the intercorrelations should reveal a simplex ordering, so that the maximum predictability of each level is attainable from its immediate neighbor or neighbors alone. This predicted relationship has been

obtained for the ABS: BW/WN (Jordan and Hamersma, 1969; the ABS-MR Scale [Attitude Behavior Scale-Mental Retardation] Jordan, 1969; as well as by Foa, 1958, 1963).

Jordan Six-Level Facet Attitude Structure

Jordan (1968) suggested an expansion of the object-subject facet. Tables 3 and 4 indicate the "facets," elements of facets, and levels identified by Jordan and correspond to Tables 1 and 2, which deal with Guttman's paradigm.

A comparison of Guttman and Jordan facet designations is in Table 5. As shown by Maierle (1969), other combinations of strong and weak elements are possible (Tables 6, 7). Jordan (1968) identified six combinations (Table 8) that were postulated to be psychologically relevant, potentially capable of instrumentation, and possessing a specific structure between themselves; i.e., a simplex one.

Jordan's system of facet analysis was employed in the construction of the ABS-MR and ABS: B/W scales. The scales were given, and in most cases the expected empirical simplex which was predicted from the contiguity hypotheses (Guttman, 1959) was approximated.

The Mapping Sentence

The mapping sentence is a means of providing a semantic relational definitional system between the variables of the study. Figure 1 shows how the mapping sentence can be used to depict both facets and elements. Table 4 indicates how the conjoint levels evolve in strength from weak elements (1's) seen at Level 1, to all strong elements (2's) seen at Level 6. A clearer example of the relationship

TABLE 3

BASIC FACETS^a USED TO DETERMINE CONJOINT
STRUCTION^b OF AN ATTITUDE UNIVERSE

(A) Referent	(B) Referent Behavior	(C) Actor	(D) Actor's Inter- group Behavior	(E) Domain of Actor's Behavior
a ₁ others	b ₁ belief	c ₁ others	d ₁ comparison	e ₁ symbolic
a ₂ self	b ₂ overt action	c ₂ self	d ₂ interaction	e ₂ operational

^aAs B qualifies A's behavior, so E qualifies C's behavior. Frequently, but not necessarily, A and C are identical. In such cases, B and E must be "consistent," i.e., some combinations seem illogical; B₁E₂. It should be noted that sometimes the subject filling out the questionnaire is identical with either referent or actor or both, but not necessarily so; i.e., in Level 1 and 2 referent and actor are identical, the subject is asked to report about them; in Level 3 the subject is identical with the referent, but not with the actor; in Level 4, 5, and 6, subject, referent, and actor are identical.

^bConjoint Struction: Operationally defined as the ordered sets of these five facets from low to high across all five facets simultaneously. The more subscript "2" elements a set contains, the greater the "strength" of the attitude. It should also be noted that not all combinations are logical. The selection of a "best" group of sets is still partly a matter of judgment. Two continua run through the facets: other-self and verbal-action.

Note:

Since this thesis was completed, Guttman has suggested a change in terminology to avoid confusion with conjoint measurement. He now suggests the terms "joint" and "lateral" instead of conjoint and disjoint.

TABLE 4

CONJOINT LEVEL, PROFILE COMPOSITION AND LABELS
FOR SIX TYPES OF ATTITUDE STRUCTION

Type-Level	Struction Profile	Descriptive Conjoint Term
1	a ₁ b ₁ c ₁ d ₁ e ₁	Societal Stereotype
2	a ₂ b ₁ c ₁ d ₁ e ₁	Societal Interactive Norm
3	a ₂ b ₂ c ₁ d ₁ e ₁	Personal Moral Evaluation
4	a ₂ b ₂ c ₂ d ₁ e ₁	Personal Hypothetical Behavior
5	a ₂ b ₂ c ₂ d ₂ e ₁	Personal Feelings
6	a ₂ b ₂ c ₂ d ₂ e ₂	Personal Behavior

TABLE 5

COMPARISON OF GUTTMAN AND JORDAN FACET DESIGNATIONS

Designation	Facets in Jordan Adaptation				
	A	B	C	D	E
	Referent	Referent Behavior	Actor	Actor's Intergroup Behavior	Domain of Actor's Behavior
Jordan	a ₁ others	b ₁ belief	c ₁ others	d ₁ comparison	e ₁ symbolic
	a ₂ self	b ₂ overt action	c ₂ self	d ₂ inter-action	e ₂ operational
	--	Subject's Behavior	Referent	Referent's Intergroup Behavior	--
Guttman	--	b ₁ belief	c ₁ subject's group	d ₁ comparative	--
		b ₂ overt action	c ₂ subject himself	d ₂ interactive	--

TABLE 6
PERMUTATIONS OF FIVE TWO-ELEMENT FACETS^a

Permutations	Facets ^b				
	A	B	C	D	E
1	1	1	1	1	1
2	1	1	1	2	1
3	2	1	1	1	1
4	2	1	1	2	1
5	1	1	2	1	1
6	1	1	2	2	1
7	2	1	2	1	1
8	2	1	2	2	1
9	1	2	1	1	1
10	1	2	1	2	1
11	2	2	1	1	1
12	2	2	1	2	1
13	1	2	2	1	1
14	1	2	2	2	1
15	2	2	2	1	1
16	2	2	2	2	1
17	1	1	1	1	2
18	1	1	1	2	2
19	2	1	1	1	2
20	2	1	1	2	2
21	1	1	2	1	2
22	1	1	2	2	2
23	2	1	2	1	2
24	2	1	2	2	2
25	1	2	1	1	2
26	1	2	1	2	2
27	2	2	1	1	2
28	2	2	1	2	2
29	1	2	2	1	2
30	1	2	2	2	2
31	2	2	2	1	2
32	2	2	2	2	2

^aSubscript "1" indicates weak element; "2" indicates strong element.

^bSee Table 3 for facets.

TABLE 7

PERMUTATIONS OF FIVE TWO-ELEMENT FACETS^a
AND BASIS OF ELIMINATION

Permutations ^b	Facets					Basis of Elimination ^c
	A	B	C	D	E	
1	o	b	o	c	s	
2	o	b	o	i	s	
3	i	b	o	c	s	
4	i	b	o	i	s	
5	o	b	i	c	s	
6	o	b	i	i	s	
7	i	b	i	c	s	
8	i	b	i	i	s	
9	o	a	o	c	s	2
10	o	a	o	i	s	
11	i	a	o	c	s	1 2
12	i	a	o	i	s	1
13	o	a	i	c	s	1 2
14	o	a	i	i	s	1
15	i	a	i	c	s	2
16	i	a	i	i	s	
17	o	b	o	c	p	2 3 4
18	o	b	o	i	p	4
19	i	b	o	c	p	3 4
20	i	b	o	i	p	4
21	o	b	i	c	p	3 4
22	o	b	i	i	p	4
23	i	b	i	c	p	3 4
24	i	b	i	i	p	4
25	o	a	o	c	p	2 3
26	o	a	o	i	p	
27	i	a	o	c	p	1 2 3 4
28	i	a	o	i	p	1
29	o	a	i	c	p	1 2 3
30	o	a	i	i	p	1
31	i	a	i	c	p	1
32	i	a	i	i	p	

^aSee Table 3 for facets.

^bNumbering arbitrary, for identification only.

^cLogical semantic analysis as follows:

Basis 1: an "a" in facet B must be preceded and followed by identical elements, both "o" or both "i."

Basis 2: a "c" in facet D cannot be preceded by an "a" in facet B.

Basis 3: a "c" in facet D cannot be followed by a "p" in facet E.

Basis 4: a "p" in facet E cannot be preceded by a "b" in facet B.

See text for explanation.

TABLE 8
FIVE-FACET SIX-LEVEL SYSTEM OF ATTITUDE VERBALIZATIONS:
LEVELS, FACET PROFILES, AND DEFINITIONAL
STATEMENTS FOR TWELVE PERMUTATIONS

Level	Facet Profile	No. ¹	Definitional Statements ²	Descriptive Name ³
1	$\frac{o b o c s}{a_1 b_1 c_1 d_1 e}$	0	<u>O</u> thers <u>b</u> elieve <u>o</u> thers <u>c</u> ompare <u>s</u> ymbolically**	** Societal stereotype (group assigned group status)
	$i b o c s$		<u>I</u> believe <u>o</u> thers <u>c</u> ompare <u>s</u> ymbolically	Personally-assigned group status
2	$\frac{o b o i s}{a_1 b_1 c_1 d_2 e_1}$	1	<u>O</u> thers <u>b</u> elieve <u>o</u> thers <u>i</u> nteract <u>s</u> ymbolically**	** Societal norm
	$o b i c s$		<u>O</u> thers <u>b</u> elieve <u>I</u> <u>c</u> ompare <u>s</u> ymbolically	Group-assigned personal status
	$\frac{i b o i s}{a_2 b_1 c_1 d_2 e_1}$		<u>I</u> believe <u>o</u> thers <u>i</u> nteract <u>s</u> ymbolically**	** Personal moral evaluation (perceived values)
3	$i b i c s$	2	<u>I</u> believe <u>I</u> <u>c</u> ompare <u>s</u> ymbolically	Self-concept (personally-assigned personal status)
	$o b i i s$		<u>O</u> thers <u>b</u> elieve <u>I</u> <u>i</u> nteract <u>s</u> ymbolically	Proclaimed laws (group expectations)
	$o a o i s$		(<u>O</u> thers <u>a</u> ct) <u>o</u> thers <u>a</u> ct <u>s</u> ymbolically	Group identity (actual group feelings)
4	$\frac{i b i i s}{a_2 b_1 c_2 d_2 e_1}$	3	<u>I</u> believe <u>I</u> <u>i</u> nteract <u>s</u> ymbolically**	** Personal hypothetical action
	$o a o i p$		(<u>O</u> thers <u>a</u> ct) <u>o</u> thers <u>i</u> nteract <u>o</u> perationally	Actual group behavior
5	$\frac{i a i i s}{a_2 b_2 c_2 d_2 e_1}$	4	(<u>I</u> <u>a</u> ct) <u>I</u> <u>i</u> nteract <u>s</u> ymbolically**	** Personal feeling
6	$\frac{i a i i p}{a_2 b_2 c_2 d_2 e_2}$	5	(<u>I</u> <u>a</u> ct) <u>I</u> <u>i</u> nteract <u>o</u> perationally**	** Personal action

¹No. - number of strong elements

²Words in parentheses are part of redundant but consistent statements.

³Alternate names in parentheses indicate relationship of various level members

**Permutation used in the ABS: BW/WH

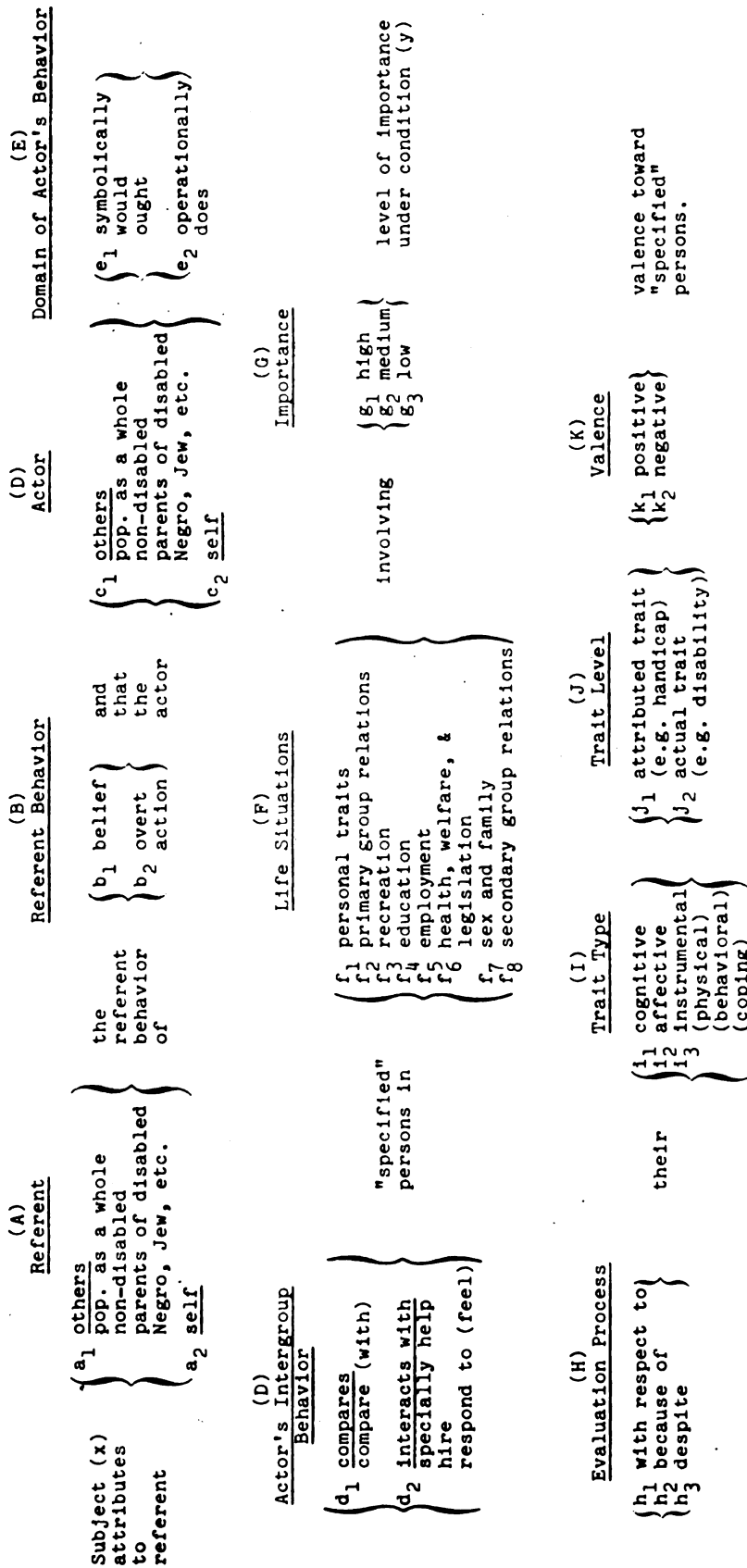


Figure 1.--A mapping sentence^a for the facet analysis of conjoint^b and disjoint^c structure of attitudes toward specified persons.

^aBased on mapping sentence of March 7, 1968 (Jordan, 1968).

^bFacets "A" through "E" denote Conjoint Structure or level.

^cFacets "P" through "J" denote attitude content of Disjoint Structure. The ordering system has not yet been developed for Disjoint Structure as for Conjoint Structure (see Tables 7 and 8).

^dAny person or social group such as aged, blind, alcoholic, Negro, national or ethnic group may be substituted for the disabled.

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Israel Institute for
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August 10, 1966

of strong and weak elements for both conjoint and disjoint is seen in Figures 1 and 2.

The Attitude Behavior Scale ABS: BW/WN (Blacks
Toward Whites and Whites Toward Negroes)

The construction of the ABS: BW/WN was guided by a facet design which makes it possible to construct items by a systematic a priori method instead of by the method of intuition or by the use of judges. Guttman's facet theory (1959) specifies that the attitude universe represented by the item content can be substructured into semantic profiles which are systematically related according to the number of identical conceptual elements they hold in common. The substructuring of an attitude universe into profiles facilitates a sampling of items within each of the derived profiles, and it also enables the prediction of relationships between various profiles of the attitude universe. This should provide a set of clearly defined profiles for cross-national, cross-cultural, and sub-cultural comparisons.

The rationale used in the selection of the item content of the ABS: BW/WN attempted to "order" the item content via three principles:

1. Ego involvement: Cognitive-affective. Is the "attitude object in situation y" dealt with cognitively or affectively?
2. Social distance: Distant-close. Is the "attitude object in situation y" distant or close to one's self.
3. Relevance: Low-high. Is situation y relevant and/or important to the subject?

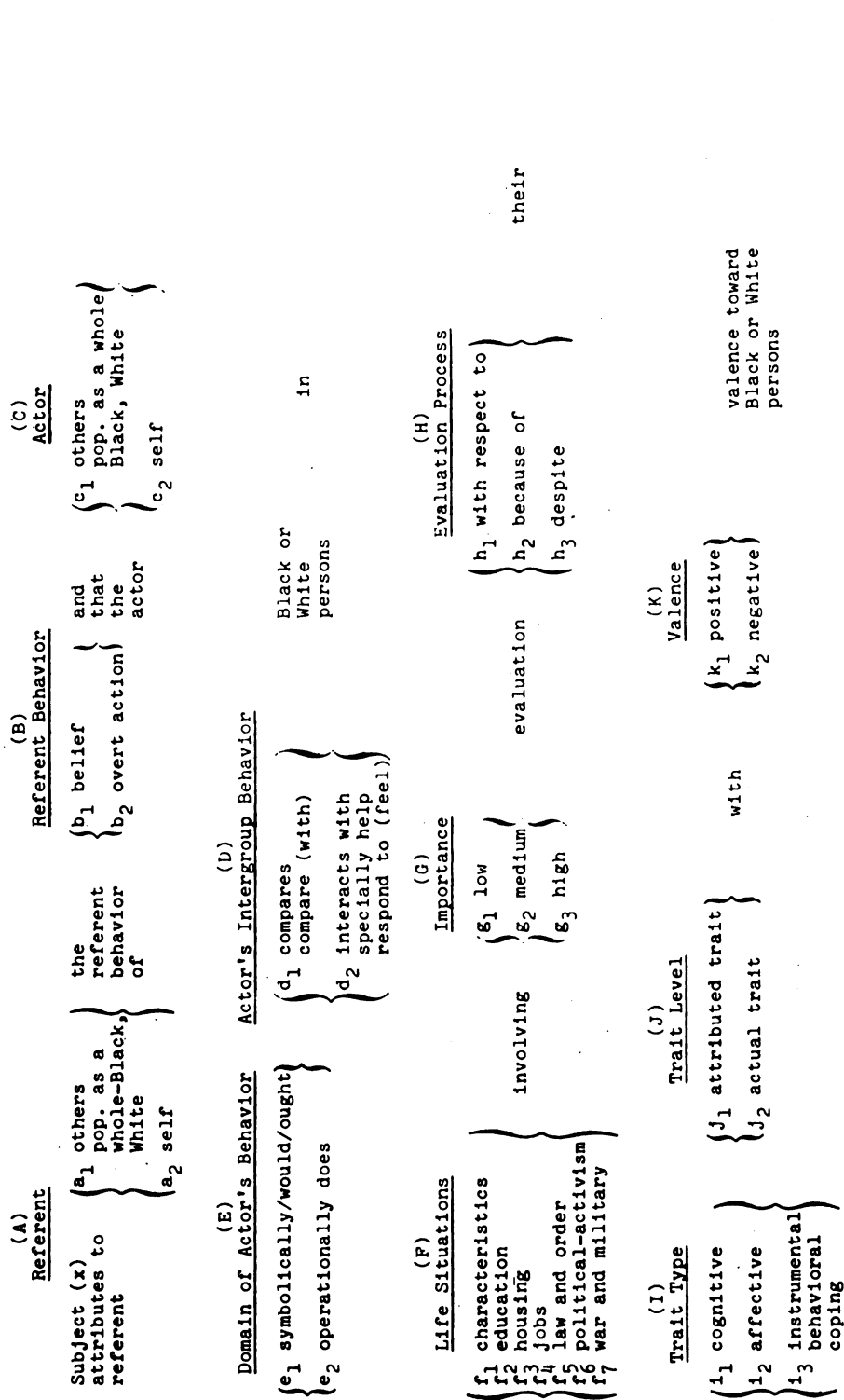


Figure 2.--A mapping sentence^a for the facet analysis of conjoint^b and disjoint^c structure of Blacks' and Whites' attitudes toward each other.

^a Evolved by Hamersma and Jordan.

^b Conjoint structure involves facets "A" through "E."

^c Disjoint structure involves facets "F" through "K."

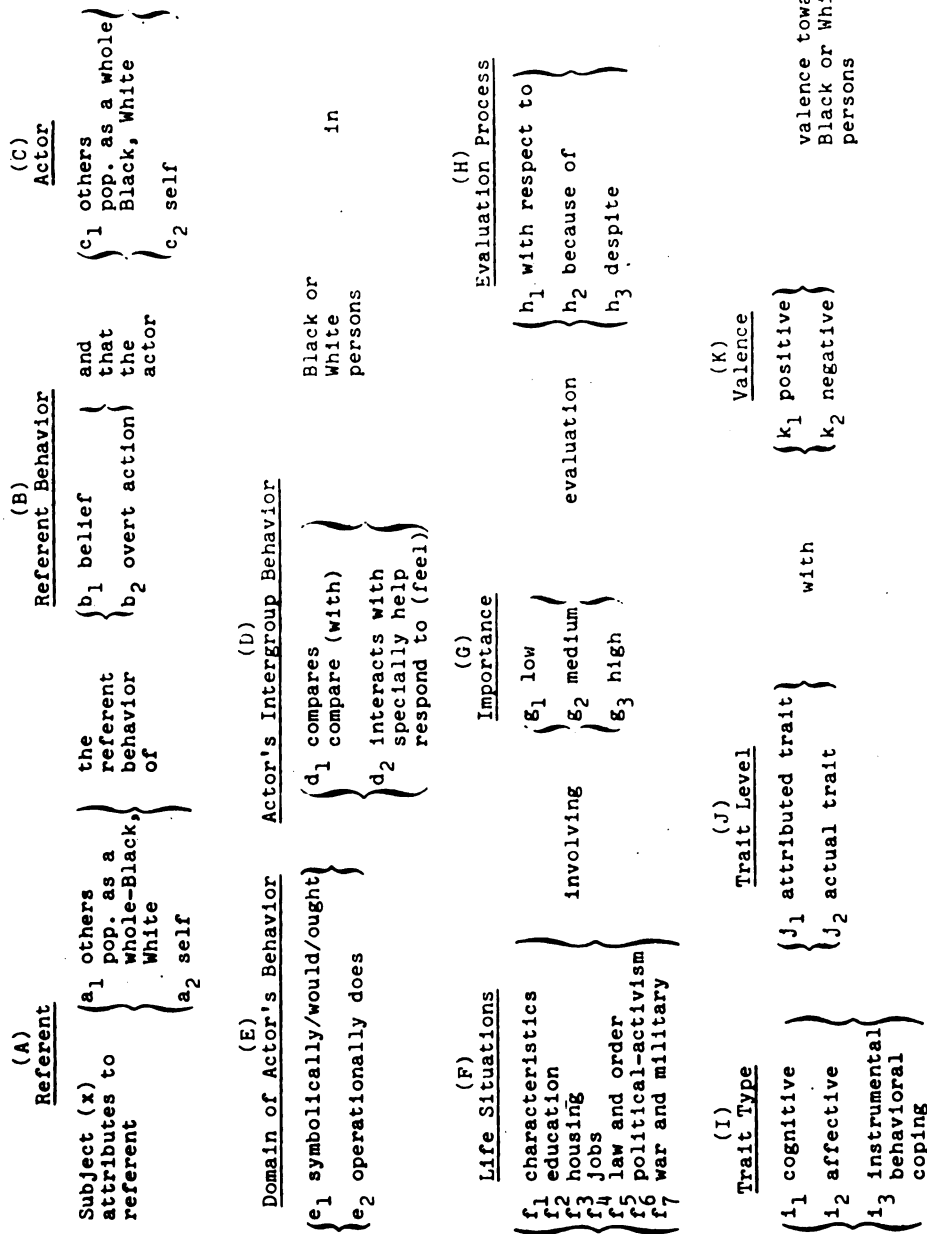


Figure 2.--A mapping sentence^a for the facet analysis of conjoint^b and disjoint^c structon of Blacks' and Whites' attitudes toward each other.

^a Evolved by Hamersma and Jordan.

^b Conjoint structon involves facets "A" through "E."

^c Disjoint structon involves facets "F" through "K."

Consistent with the above discussion of the weak-strong principle developed in Table 8, a positive or stronger attitude would be expressed by a subject who "agreed with or chose" items that dealt with Blacks or Whites in "highly important situations that involved the self in close interpersonal action."

From a "theory of content" dictated by Figure 1, delimited in Figure 2, and structured into six levels or subscales by Table 4 and Table 8, 14 items were constructed for each of the six levels for each of seven areas:

1. (C) Characteristics
2. (E) Education
3. (H) Housing
4. (J) Jobs
5. (L) Law and Order
6. (P) Political Activism--Racial
7. (W) War and Military

In tandem with the 84 attitude questions used by each of the seven attitude content areas, each "content" question was followed by an "intensity" question for a total of 168 items in each of the seven scale areas. Forty-six questions were also constructed by Hamersma (1969) to instrument variables measuring values, contact, demographic factors, religiosity, change proneness, and aid-to-education. Thus, any subject answered a total of 214 questions for any one attitude scale and 84 questions for each additional scale he took. About 70 subjects took all seven scales over an eight-week period--a total of 714 questions.

The ABS: BW/WN-G (General) used in this study is a composite of the two best items found in each of the seven above-mentioned scales. Hamersma (1969) describes the development of the ABS: BW/WN and, in addition, presents a comprehensive treatment of Guttman facet analysis and its implications (see Appendices B.1 and B.2).

Summary

A review of the literature indicates that the factors affecting an attitude are many. Since an obtained attitude score is very complex, it is necessary to consider as many factors as possible. The presentation of the instrument used in this study considers the multidimensionality of attitudes via the Guttman facet theory approach.

CHAPTER IV

DESIGN AND ANALYSIS PROCEDURES

In this chapter the population is described and the procedures used are presented. In addition, the hypotheses, along with the instrumentation and analysis for each, are stated. The chapter concludes with an explanation of the analyses used in the study.

Population

The population consisted of rehabilitation counselor trainees in both master's and doctoral degree programs from 47 programs. Estimated enrollment in rehabilitation counselor training programs was 1,530 Whites and 199 Blacks. Of these 781 responded; 709 were White, 57 Black, and 15 of other racial origins.

Procedures

On June 16, 1969, 70 rehabilitation counselor training programs were contacted by letter describing the project (Appendix C). Enclosed was a card to be checked "yes" or "no," indicating willingness to participate. This card had a space for the number of students in the program (Appendix D). When it was received by the researcher, the number of scales indicated were mailed to the respondent (Appendix E), along with instructions for the administration of the scale.

On August 15 a list was made of those schools from which there was no response, and on August 18 a follow-up letter was sent (Appendix F). During this time some schools required additional information

and desired to examine the scales, and such information was mailed to them. Programs which were unwilling to participate were contacted in September 1969 with a personal letter which gave a detailed explanation of the project.

In December 1969 a final follow-up letter was mailed to those schools responding negatively to the initial contact. Also in December a list was composed of those schools which had a positive response to the study but had not yet returned the data. These schools were asked to return the answer sheets as soon as possible.

With the data available from the Michigan State University group, a pilot study was run in December, the results of which are in Appendix G. The purpose of the pilot run was to examine the data of the Michigan State University group, try out the computer programs, and assign a code to all the schools that were listed in the Directory of Vocational Rehabilitation Educators (1968-1969). This code ran from 01 to 75. All programs listed were not rehabilitation counseling programs, so all 75 were not contacted. The initial contact was 70 schools. The responses are presented in Table 9 (also see Appendix H):

TABLE 9
RESPONSES TO STUDY (N=70)

Yes	No	No Response	Data Received	Data Not Received
59	3	8	47	23

Major Research Hypotheses

Attitudes and Education

H-1: Amount of education is positively related to favorable attitudes toward members of the opposite race.

Instrumentation.--Amount of education was measured by Question 89, with scores ranging from 1-5, indicating level of graduate training.

Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Pearson Product Moment correlations between amount of education and attitude scores.

Attitudes and Age

H-2: Age is negatively related to favorable attitudes toward members of the opposite race.

Instrumentation.--Age was measured by Question 86, with scores ranging from 1-5. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Pearson Product Moment correlations between age and attitude scores.

Attitudes and Efficacy

H-3: There is a positive relationship between a high efficacy score and a positive attitude toward members of the opposite race.

Instrumentation.--Efficacy was measured by the content scores from the Life Situation Scale (Wolf, 1967). Scores were from 9 items, with a range of scores from 9-36, items 103 alternating to 119. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis. Pearson Product Moment correlation between efficacy and attitude scores.

Attitudes and Contact

H-4: Favorable attitudes toward members of the opposite race are related to (a) kind of contact, (b) amount of contact, (c) ease of avoidance of contact, (d) gain from the contact, and (e) enjoyment of the contact.

Instrumentation.--Contact was measured by items 92 (kind), 93 (amount), 94 (avoidance), 95 (gain), and 96 (enjoyment) with a range of scores from 1-5. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Pearson Product Moment correlation between contact and attitude scores.

Attitudes and Religion

H-5: There is a significant difference between attitude scores of religious groups.

Instrumentation.--Religious affiliation was measured by Question 88. Attitudes were measured by the six subscales of the ABS: BW/WN.

Analysis.--Multivariate analysis of variance.

Attitudes and Reported Prejudice

H-6: There is a positive relationship between reported prejudice and obtained racial attitudes.

Instrumentation.--Reported prejudice was measured by Question 99, with a range of scores from 1-5. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Pearson Product Moment correlation between reported prejudice and the attitude scores.

Attitudes and Political Affiliation

H-7: There is no difference between political affiliation groups' attitude scores toward the opposite race.

Instrumentation.--Political affiliation was measured by Item 98. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Multivariate analysis of variance.

Attitudes and Urbanity

H-8: Persons from urban areas have more positive attitudes toward members of the opposite race than persons from rural areas.

Instrumentation.--Urbanity was measured by Item 101. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Pearson Product Moment correlation between urbanity and attitudes.

Attitudes and Race

H-9: There is a difference between the attitudes of racial groups.

Instrumentation.--Race was measured by Item 100. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Multivariate analysis of variance.

Attitudes and Geographic Location

H-10: Geographically, there is no difference in racial attitudes of rehabilitation counselor trainees toward members of the opposite race.

Instrumentation.--Geographic location was measured by Item 102. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Multivariate analysis of variance.

Attitudes and Sex

H-11: There is a difference in racial attitude scores of males and females.

Instrumentation.--Sex was indicated by Item 85. Attitudes were measured by the six subscales on the ABS: BW/WN.

Analysis.--Multivariate analysis of variance.

Simplex Approximation

H-12: The ABS: BW/WN-G will form a Guttman Simplex for each of the racial groups.

Instrumentation. Correlations between the six attitude levels of the ABS: BW/WN-G.

Analysis

The Control Data Corporation Computers CDC 3600 and 6500 at Michigan State University were used to analyze the data.

Descriptive Statistics

Two frequency column count programs (Clark, 1964) designated as FCC-I and FCC-II were used in this study to obtain a frequency distribution of all data.

These programs can be used to check the raw data prior to running it in computational programs. In this study a program was developed by Teitelbaum (1970) for the IBM 1130 to give a listing of all columns to check for illegal codes in specified columns.

Correlational Statistics

In this study Pearson Product Moment correlations were used to test the relationships between the variables of education, age, efficacy, change, contact, urbanity, and the attitude levels of the

ABS: BW/WN-G.

Multivariate Analysis of Variance

In the analysis of several hypotheses, Multivariate Analysis of Variance (MANOVA) was used. Commenting upon the practical effect of multivariate analysis of variance, Bock and Haggard (1968) state:

The practical effect of this development is to make available to fields of research where many dependent variables must be studied simultaneously, the principle and techniques of experimental design, linear estimation, and tests of hypothesis which have proven so successful in univariate applications (p. 100).

A complete description of the MANOVA program, as prepared by Finn (1967), is in Appendix I.

CHAPTER V

ANALYSIS OF DATA

In this chapter the research hypotheses and the results from the analysis of the data are presented.

Attitudes and Education

H-1: Amount of education is positively related to favorable attitudes toward members of the opposite race.

Table 10 contains the correlations for Blacks and Whites between education and each of the six attitude levels. The .05 level of significance was the criterion. On this basis, Level 4 (hypothetical) and Level 6 (action) were significantly related to amount of education; that is, a significant relationship existed between attitudes at these two levels and amount of education for Whites. For Blacks, education was significantly related to attitudes only at the action level, and highly so at the .009 level. The correlation between attitudes and education for Blacks at Level 6 (action) was .34 whereas it was .09 for the White sample.

Attitudes and Age

H-2: Age is negatively related to favorable attitudes toward members of the opposite race.

The data (Table 10) indicated no significant relationship between attitudes and age for Whites, while a significant relationship did exist between age and positive attitudes of Blacks toward Whites on Levels 2,

TABLE 10

CORRELATIONS AND SIGNIFICANCE LEVELS FOR
BLACKS AND WHITES^a BETWEEN SELECTED
PREDICTOR VARIABLES AND LEVELS OF
ABS: BW/WN

Predictor Variable	Group	Attitude Levels						
			1	2	3	4	5	6
Education	W	r	-0.069	0.017	0.062	0.090	0.059	0.088
		sig	0.068	0.654	0.098	0.017	0.119	0.020
	B	r	-0.076	-0.052	0.053	-0.004	-0.098	0.341
		sig	0.571	0.700	0.695	0.975	0.463	0.009
Age	W	r	-0.025	0.008	-0.007	0.036	0.054	0.024
		sig	0.499	0.825	0.853	0.341	0.151	0.528
	B	r	0.151	0.256	0.337	0.314	0.340	0.152
		sig	0.254	0.050	0.009	0.015	0.008	0.251
Efficacy (Content)	W	r	-0.028	0.016	0.043	0.095	0.099	0.046
		sig	0.454	0.662	0.249	0.011	0.008	0.220
	B	r	-0.042	0.037	0.107	0.147	-0.054	0.186
		sig	0.752	0.780	0.421	0.267	0.683	0.158
Change (Prejudice Comparative)	W	r	0.002	0.063	0.186	0.232	0.126	0.062
		sig	0.962	0.095	0.000	0.000	0.001	0.101
	B	r	0.199	0.399	0.589	0.507	0.382	-0.096
		sig	0.133	0.002	0.000	0.000	0.003	0.476
Contact: Kind	W	r	0.008	0.101	0.121	0.050	0.158	0.092
		sig	0.834	0.007	0.001	0.183	0.000	0.014
	B	r	0.176	0.126	0.269	0.122	0.352	-0.019
		sig	0.181	0.341	0.039	0.356	0.006	0.884

TABLE 10--Continued

Predictor Variable	Group	Attitude Levels						
		1	2	3	4	5	6	
Contact: Amount	W	r	0.027	0.133	0.149	0.072	0.200	0.197
		sig	0.470	0.000	0.000	0.055	0.000	0.000
	B	r	0.134	-0.070	0.035	0.162	0.289	0.251
		sig	0.311	0.601	0.795	0.220	0.026	0.055
Contact: Avoidance	W	r	0.037	0.109	0.186	0.061	0.059	0.042
		sig	0.326	0.004	0.000	0.102	0.116	0.260
	B	r	-0.028	-0.169	-0.150	-0.094	-0.040	-0.024
		sig	0.832	0.200	0.256	0.478	0.762	0.855
Contact: Gain	W	r	0.044	0.087	0.101	0.058	0.124	0.154
		sig	0.239	0.020	0.007	0.123	0.001	0.000
	B	r	0.176	0.155	0.296	0.291	0.186	0.298
		sig	0.189	0.249	0.026	0.028	0.166	0.025
Contact: Enjoyment	W	r	0.087	0.151	0.259	0.162	0.180	0.132
		sig	0.020	0.000	0.000	0.000	0.000	0.000
	B	r	0.176	0.155	0.296	0.291	0.186	0.298
		sig	0.189	0.249	0.026	0.028	0.166	0.025
Urbanity	W	r	-0.041	0.023	-0.017	-0.041	-0.047	0.013
		sig	0.280	0.548	0.645	0.281	0.209	0.735
	B	r	0.192	0.131	0.165	-0.050	0.006	-0.005
		sig	0.150	0.327	0.215	0.708	0.966	0.970

^aWhites=709; Blacks=57

3, 4, and 5 of the ABS: BW/WN (normative, moral, hypothetical action, and feeling). The hypothesis stated a negative relationship between age and attitudes whereas the data were in direct contradiction to this.

In summary, the data showed no relationship between attitude and age for Whites and a rather strong relationship between attitudes and age for Blacks, at certain levels of the ABS: BW/WN.

Attitudes and Efficacy

H-3: There is a positive relationship between efficacy scores and positive attitudes toward members of the opposite race.

The data (Table 10) indicate a significant relationship between attitudes of Whites toward Blacks and efficacy on Levels 4 and 5. In other words, efficacy, which tested man's sense of control over his environment, was related to the attitudes of Whites at the hypothetical and feeling level. For Blacks the data indicate no relationship between efficacy and attitudes.

Attitudes and Contact

H-4: Favorable attitudes toward members of the opposite race are related to (a) kind of contact, (b) amount of contact, (c) ease of avoidance of contact, (d) gain from contact, and (e) enjoyment of contact.

The data on this hypothesis are complex and difficult to interpret due to the problem of multicollinearity. The analyses performed on H-4 are based on bivariate¹ correlational interpretation. The contact

¹Appendix K contains the analysis of H-4 by a multiple add program.

variable is divided into five aspects: kind of contact, amount of contact, avoidance of contact, gain from the contact, and enjoyment of the contact. Of the 30 correlations possible between the six levels and the five attitude variables, 22 were significant. Enjoyment of contact was the most significant predictor of increasing positive attitudes in that those Whites who stated they enjoyed their contact with Blacks indicated significantly positive attitudes at all six levels. For Whites displaying positive attitudes, amount of contact and kind of contact were next most predictive.

The data (Table 10) for Blacks between the contact variables and attitudes are not as clear as the data for Whites. However, perceived and/or reported enjoyment of contact of Blacks with Whites is still the best predictor. Amount of contact and perceived gain from the contact are next most predictive with "gain" being somewhat higher than "amount."

Attitudes and Religion

H-5: There is a significant difference between attitude scores of religious groups.

The data (Table 11) from the multivariate analysis of variance procedures indicated no differences in attitudes between religious groups. Consequently, the hypothesis was not confirmed.

Attitudes and Reported Prejudice

H-6: There is a positive relationship between reported prejudice and racial attitude scores.

The data (Table 10) indicated a significant relationship between one's self-report of prejudice and positive attitudes at Levels 3, 4,

TABLE 11
MULTIVARIATE ANALYSIS OF VARIANCE
(MANOVA) RESULTS ON RELIGION

Variables	Cell Means					
	1 STEREO	2 NORMAT	3 MORAL	4 HYPOTH	5 FEELING	6 ACTION
1. No Answer	25.08000	26.26667	35.98667	36.98667	33.88000	39.32000
2. Catholic	24.82540	26.34921	35.43386	36.76190	34.75661	38.48677
3. Protestant	25.03099	25.94930	35.50704	36.70423	35.12958	38.42535
4. Jewish	24.34615	26.65385	35.61538	36.75000	35.19231	38.86538
5. Other	24.83636	26.01818	36.20909	36.86364	34.37273	39.22727

F-Ratio for Multivariate Test of Equality of Mean Vectors = 0.9033

D.F. = 24 and 2690 P Less Than 0.5984

VARIABLE	BETWEEN MEAN SQ	UNIVARIATE F	P LESS THAN
1. Stereo	6.4596	0.5700	0.6845
2. Normat	9.4280	0.3042	0.8752
3. Moral	14.7437	0.5621	0.6903
4. Hypoth	1.5135	0.0827	0.9878
5. Feeling	32.5645	2.4438	0.0453
6. Action	23.8560	0.3482	0.8454

Degrees of Freedom for Hypothesis = 4
Degrees of Freedom for Errors = 776

and 5. In other words, the degree to which Whites reported their own prejudice was predictive of their positive attitudes on Levels 3, 4, and 5 (moral evaluation, hypothetical behavior, and actual feeling levels) which are also self-report types of measures. The data (Table 10) for Blacks on the relationship between self-report of prejudice and attitudes toward Whites indicate a significant relationship between attitude Levels 2, 3, 4, and 5 (normative, moral evaluation, hypothetical behavior, and actual feeling levels).

Attitudes and Political Affiliation

H-7: There is no difference between political affiliation groups' attitude scores toward the opposite race.

The data (Table 12) indicate no difference between political affiliation groups for the six attitude levels when analyzed simultaneously. Therefore, this hypothesis was supported.

Attitudes and Urbanity

H-8: Persons from urban areas will have more positive attitudes towards members of the opposite race than persons from rural areas.

The data (Table 10) indicate no relationship between urbanity and attitudes for either Whites or Blacks.

Attitudes and Race

H-9: There is a difference between the attitudes of racial groups.

The data (Table 13) indicated a highly significant relationship (.0001 level) between race and attitudes. In other words, the multivariate analysis, which considers race as an independent variable with

TABLE 12

MULTIVARIATE ANALYSIS OF VARIANCE (MANOVA)
RESULTS ON POLITICAL AFFILIATION

Variables	Cell Means					
	1 STEREO	2 NORMAT	3 MORAL	4 HYPOTH	5 FEELING	6 ACTION
1. Republi- can	23.60625	26.24375	35.70000	36.35000	34.98750	36.93750
2. Demo- cratic	23.35857	26.27490	35.82869	37.17928	35.18327	39.23904
3. Inde- pendent	23.23385	25.97231	35.49538	36.62462	34.53846	39.03077
4. Other	23.57778	26.11111	35.44444	37.04444	34.17778	39.02222

F-Ratio for Multivariate Test of Equality of Mean Vectors = 1.2725

D.F. = 18 and 2184

P Less Than 0.1957

VARIABLE	BETWEEN MEAN SQ	UNIVARIATE F	P LESS THAN
1. Stereo	5.6435	0.5888	0.6225
2. Normat	5.1434	0.1660	0.9193
3. Moral	6.0094	0.2290	0.8763
4. Hypoth	26.8426	1.4765	0.2196
5. Feeling	27.3084	2.0424	0.1066
6. Action	203.1355	2.9980	0.0300

Degrees of Freedom for Hypothesis = 3

Degrees of Freedom for Errors = 777

TABLE 13
MULTIVARIATE ANALYSIS OF VARIANCE
(MANOVA) RESULTS ON RACE

Variables	Cell Means					
	1 STEREO	2 NORMAT	3 MORAL	4 HYPOTH	5 FEELING	6 ACTION
1. No Answer	27.33333	25.72222	36.50000	37.11111	33.22222	37.61111
2. White	24.76758	25.95696	35.87088	36.82066	34.92109	38.46772
3. Black	25.74510	29.01961	32.70588	35.60784	34.52941	42.21569
4. Oriental	25.40000	26.60000	36.20000	38.40000	33.60000	35.80000
5. Other	26.20000	24.40000	32.80000	37.80000	32.50000	37.90000

F-Ratio for Multivariate Test of Equality of Mean Vectors = 4.1918

D. F. = 24 and 2690 P Less Than 0.0001

VARIABLE	BETWEEN MEAN SQ	UNIVARIATE F	P LESS THAN
1. Stereo	43.3115	3.8869	0.0040
2. Normat	120.1783	3.9511	0.0036
3. Moral	142.9372	5.5907	0.0002
4. Hypoth	24.1643	1.3290	0.2575
5. Feeling	29.6600	2.2232	0.0649
6. Action	184.2450	2.7223	0.0286

Degrees of Freedom for Hypothesis = 4
Degrees of Freedom for Errors = 776

five levels [(1) prefer not to answer, (2) White, (3) Black, (4) Oriental, and (5) Other] and which compares the races simultaneously on six dependent variables (attitudinal levels), showed significant differences among the races. The multivariate analysis procedure per se does not indicate which race was most positive. Examination of the absolute size of the cell means (Table 13) indicates that Blacks were more positive toward Whites than Whites were to Blacks on Levels 1, 2, and 6, which are the stereotypic, normative, and action levels. The data in Table 13 also indicate that Whites were more positive toward Blacks than Blacks were to Whites at Levels 3, 4, and 5 (the moral evaluation, hypothetical, and feeling levels).

Attitudes and Geographic Location

H-10: Geographically, there is no difference in the racial attitudes of rehabilitation counselor trainees toward members of the opposite race.

The data (Table 14) indicated a significant relationship between geographic location and racial attitudes. In other words, the section of the United States in which one spent the first 21 years of his life was related to the types of attitudes he expressed. Therefore, the hypothesis was not supported.

Attitudes and Sex

H-11: There is a difference in the racial attitude scores for males and females.

The data (Table 15) indicated a highly significant relationship between attitudes and sex. Examination of the means in Table 15 suggested that females are more positive than males at Levels 2, 3, 4, and

TABLE 14

MULTIVARIATE ANALYSIS OF VARIANCE
(MANOVA) RESULTS ON GEOGRAPHY

Variables	Cell Means					
	1 STEREO	2 NORMAT	3 MORAL	4 HYPOTH	5 FEELING	6 ACTION
1. South	24.59184	25.82653	34.91837	36.22449	34.71429	38.36224
2. West	25.45977	26.39080	35.58621	37.19540	34.93103	40.02299
3. Midwest	25.21344	26.54941	36.52569	37.61265	34.94071	39.13043
4. East	24.38889	26.12778	35.33333	36.00000	34.68889	37.95000
5. North	25.42188	25.15625	35.26563	36.76563	34.93750	38.09375

F-Ratio for Multivariate Test of Equality of Mean Vectors = 1.7183

D.F. = 24 and 2687

P Less Than 0.0163

VARIABLE	BETWEEN MEAN SQ	UNIVARIATE F	P LESS THAN
1. Stereo	33.7696	3.0138	0.0176
2. Normat	32.2751	1.0449	0.3830
3. Moral	81.6704	3.1522	0.0139
4. Hypoth	90.1032	5.0487	0.0006
5. Feeling	2.7281	0.2028	0.9369
6. Action	86.4885	1.2686	0.2808

Degrees of Freedom for Hypothesis = 4

Degrees of Freedom for Errors = 775

TABLE 15

MULTIVARIATE ANALYSIS OF VARIANCE
(MANOVA) RESULTS ON SEX

Variables	Cell Means					
	1 STEREO	2 NORMAT	3 MORAL	4 HYPOTH	5 FEELING	6 ACTION
1. Female	24.19620	26.39873	36.39873	37.43354	35.11076	37.62342
2. Male	24.37634	25.95269	35.12688	36.32043	34.61720	39.37849

F-Ratio for Multivariate Test of Equality of Mean Vectors = 6.1098

D.F. = 6 and 774

P Less Than 0.0001

VARIABLE	BETWEEN MEAN SQ	UNIVARIATE F	P LESS THAN
1. Stereo	6.1054	0.6331	0.4265
2. Normat	37.4325	1.2126	0.2712
3. Moral	304.3424	11.7909	0.0007
4. Hypoth	233.1140	12.9963	0.0004
5. Feeling	45.8311	3.4247	0.0647
6. Action	579.5372	8.5702	0.0036

Degrees of Freedom for Hypothesis = 1

Degrees of Freedom for Errors = 779

5 (normative, moral, hypothetical, and feeling). In other words, it is suggested that females are more positive than males in all levels except 1 and 6 (stereotypic and action levels), at which males are more positive than females.

Simplex Approximation

H-12: The ABS: BW/WN will form a Guttman simplex for each of the racial groups.

The data (Table 16) indicated that the simplex was poorly approximated. The contiguity theory of Guttman specifies that the correlational matrix between the six attitude levels should be of a specific nature. The correlations should increase in size in the rows and columns as they progress toward the diagonal with the largest correlations being in the diagonal. There presently exists no statistical test to determine whether an obtained simplex approximates the postulated one. Previous research by Harrelson (1970) and Hamersma (1969) established a criterion of six reversals as being the maximum that could exist and still permit the simplex to be regarded as "approximated."

TABLE 16

SIMPLEX: CORRELATIONS BETWEEN LEVELS
OF THE ABS: BW/WN-G

1	--							1	--								
2	.35	--						2	.22	--							
3	.12	.44	--					3	.27	.74	--						
4	-.06	.10	.41	--				4	.11	.30	.68	--					
5	.12	.29	.25	.06	--			5	.40	.40	.53	.45	--				
6	-.17	-.45	-.02	.23	-.22	--		6	-.14	-.30	-.16	-.02	-.37	--			
<hr/>							<hr/>										
	1	2	3	4	5	6		1	2	3	4	5	6				
	White Sample (709 ^a)							Black Sample (57 ^b)									

^aCritical value of .07 necessary for significance at $P < .05$.

^bCritical value of .22 necessary for significance at $P < .05$.

CHAPTER VI

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

The significance of racial attitudes for the counselor has been expressed both by educators and practitioners. This dissertation was an outgrowth of this concern and an attempt to understand better the dimensions and components of the racial attitudes from the Guttman facet theory approach.

Methodology

A total of 70 rehabilitation counselor training program coordinators were contacted to see whether they were willing to participate in the study. Of these 59 agreed, 8 did not respond, and 3 did not agree.

Those who agreed to participate were mailed the general attitude behavior scale (ABS: BW/WN-G) developed by Hamersma and Jordan (1969), which was a facetized scale based on the theory of Guttman (1966).

For this study there were two versions of the scale: one for Blacks, ABS: B/W-G, and one for Whites, ABS: W/N-G. These were identical forms of the scale except for the term "Black," which was used in the ABS: B/W-G, and for the term "Negro," which was used in the ABS: W/N-G. This procedure was followed in order to use a term which designated race in a manner that was acceptable to both Blacks and Whites.

Analysis

The following analysis procedures were performed on the data: correlational (Pearson r), multivariate analysis of variance, and a simplex approximation.

Discussion

Attitudes and Education

H-1: Amount of education is positively related to favorable attitudes toward members of the opposite race.

For Whites a significant relationship existed at two levels on the ABS: BW/WN: Level 4 (hypothetical) and Level 6 (action). For Blacks a significant relationship was found only at Level 6 (action).

In considering such correlations, the size of the number for Whites (709) and that for Blacks (57) may be an important factor. Even though significant correlations were obtained for Whites at two levels, the question can be raised regarding whether these correlations are meaningful. The only significant correlation for Blacks was at Level 6, which is the action level of the ABS: BW/WN.

A possibly erroneous interpretation of this result may be that education results in favorable attitudes toward Whites and these are manifested in personal action.

Such a statement is not necessarily valid, since there are other factors which could have produced this result. One of these is the possibility that those Blacks who seek higher education may have had more positive racial attitudes in the first place, thus the relationship may not result from amount of education per se.

Attitudes and Age

H-2: Age is negatively related to favorable attitudes toward members of the opposite race.

The data indicated no significant relationships between attitudes and age for Whites. For Blacks a strong relationship was found to exist at Levels 2 (normative), 3 (moral), 4 (hypothetical action), and 5 (feeling).

Moreover, while the hypothesis stated a negative relationship between age and attitudes, the data indicated no relationship for Whites and a strong positive relationship for Blacks at certain levels--2, 3, 4, and 5.

The data suggests that for White rehabilitation counselor trainees, there is no change in their racial attitudes with an increase in age; while for Blacks, age and positive attitudes toward Whites are related at certain levels: normative, moral, hypothetical action, and feeling. Perhaps Blacks, with age and/or experience, acquire more favorable attitudes toward Whites.

Caution must be exercised in such interpretations and emphasis placed on the fact that correlation does not imply causation. Attention must be given to several factors; e.g., the range of ages of the subjects in this study. Table 17, which presented the means and standard deviations for both Blacks and Whites, indicates that on the age variable for Whites the mean was 2.355 and for Blacks the mean was 2.596. Both means were computed from coded group data.¹

When both the means and the foils presented in the age item (No. 86) of the ABS: BW/WN are considered, it indicates that the White

¹See Item 86 in Appendix J for the item category codes.

TABLE 17
 SAMPLE SIZES,^a MEANS, AND STANDARD DEVIATIONS
 FOR BLACKS AND WHITES ON THE ABS: BW/WN

Variable			Whites		Blacks	
			Mean	S.D.	Mean	S.D.
Attitude Content	1. Stereotype	14-42	30.011	12.849	30.263	12.541
	2. Normative	14-42	31.472	7.189	30.491	5.895
	3. Moral Eval.	14-42	36.190	4.822	34.439	5.414
	4. Hypothetical	14-42	35.727	3.924	33.965	4.942
	5. Feeling	14-42	36.955	6.907	39.386	7.905
	6. Action	14-56	30.666	8.758	38.870	9.029
	7. Total	84-266	183.583	16.040	180.544	20.387
Value	8. Efficacy-Cont.	9-36	24.190	3.288	23.404	3.364
	9. Efficacy-Int.	9-36	28.850	3.369	29.018	3.467
Contact	10. Kind	1-5	2.549	0.918	3.086	0.950
	11. Amount	1-5	4.228	1.330	4.614	1.098
	12. Avoidance	1-5	4.083	1.037	3.421	1.194
	13. Gain	1-5	2.979	1.861	3.411	1.535
	14. Enjoyment	1-5	4.479	0.837	4.164	0.877
Change Orienta- tion	15. Child Rearing	1-4	3.017	0.729	3.179	0.606
	16. Birth Control	1-4	3.559	0.641	3.321	0.664
	17. Prejudice-Comp.	1-5	4.268	0.672	3.893	1.090
Demo- graphic	18. Age	1-5	2.355	0.713	2.596	0.842
	19. Educ. Amount	1-5	1.477	0.836	1.286	0.494
	20. Urbanity	1-4	2.855	1.041	3.304	1.094
	21. South/North	1-5	2.769	1.261	2.702	1.535

^aWhites 709, Blacks 57

subjects were younger than the Black subjects. It should also be noted that the spread of ages of the subjects was not great and that most of them were in their early twenties. An appropriate question at this point is whether there was no relationship for Whites between age and racial attitude score or whether the instrument or the analysis were not sensitive to pick up the differences in the broad range represented within each of the foils; i.e., 21-30 years.

A recommendation for further study on this particular point would be to study a population with a wider range of ages and have exact ages instead of coded ranges such as 21-30 years.

Attitudes and Efficacy

H-3: There is a positive relationship between a high efficacy score and positive attitudes toward members of the opposite race.

For this hypothesis a significant relationship was obtained between efficacy and attitudes for Whites at Level 4 (hypothetical) and Level 5 (feeling) of the ABS: BW/WN-G. For Blacks, however, there were no significant relationships between efficacy and attitudes.

An interpretation of the presence of some relationship between these variables for Whites and not for Blacks may be that in comparison to Blacks, Whites have reason to be more "efficacious." The White subjects' sense of efficacy may have resulted from the positions they hold, money they have, or security they possess. These factors may have permitted Whites to hypothesize that they would act or feel positively toward Blacks while knowing that they would never have to do so.

Blacks, however, may be different in regard to efficacy due to situational determinants which have resulted in their having a low sense of control over their environment.

Attitudes and Contact

H-4: Favorable attitudes toward members of the opposite race are related to (a) kind of contact, (b) amount of contact, (c) ease of avoidance of contact, (d) gain from the contact, and (e) enjoyment of the contact.

In a bivariate analysis, enjoyment of contact was the most significant predictor of increasing positive attitudes in that those Whites who stated they enjoyed their contact with Blacks indicated significantly positive attitudes at all six levels. For Whites displaying positive attitudes, amount of contact and kind of contact were next most predictive.

The data (Table 10) for Blacks between the contact variables and attitudes were not as clear as the data for Whites. However, perceived and/or reported enjoyment of contact of Blacks with Whites was still the best predictor of favorable attitudes. Amount of contact and perceived gain from the contact were next most predictive with "gain" being somewhat higher than "amount." This suggested that those Blacks who enjoyed their contact with Whites and felt they "gained" from such contact felt positive toward Whites. Only two of the contact variables were predictive of attitudes at the action level for Blacks, enjoyment and amount, with enjoyment being the greater predictor.

The many dimensions of this hypothesis does not permit a straightforward interpretation due to the bivariate correlation used. A more precise analysis would be to use a step-wise multiple regression technique.²

²See Appendix K.

Attitudes and Religion

H-5: There is a significant difference between the attitude scores of religious groups.

The results from the analysis did not support this hypothesis. Past research, as mentioned in Chapter II, cited various studies which reported a relationship between religious affiliation and racial attitudes.

An explanation for the failure to support this hypothesis may be the homogeneity of the subjects in this study on such factors as age, education, and vocational area. Another explanation could be that those who enter social science and related areas, such as rehabilitation counselor training, may have more positive and similar racial attitudes regardless of religious affiliation. Stephenson (1952) indicated that students in social areas tended to have more favorable racial attitudes than those in other areas, such as engineering.

Attitudes and Reported Prejudice

H-6: There is a positive relationship between reported prejudice and racial attitude scores.

For Whites there was a significant relationship between their self-reports of prejudice and positive attitudes at the moral evaluation, hypothetical behavior, and actual feeling levels. This indicates that those Whites who reported they were prejudiced were so at Levels 3, 4, and 5 (moral, hypothetical, and feeling) but not at Level 6 (action level). This may indicate a discrepancy between reported prejudice and actual behavior. For Blacks, self-reported prejudice and attitudes on

the ABS: BW/WN were related at Levels 2, 3, 4, and 5 (normative, moral, hypothetical, and feeling).

For Blacks and Whites, therefore, there may be a difference between self-report of prejudice and actual behavior.

Attitudes and Political Affiliation

H-7: There is no difference between political affiliation groups' attitude scores toward the opposite race.

The results of the analysis indicated that this hypothesis was supported. An explanation for lack of difference between political affiliation groups may be similar to that posited for H-5, which stated that the occupational homogeneity of the research population may reduce the between group differences.

Attitudes and Urbanity

H-8: Persons from urban areas have more positive attitudes toward members of the opposite race than persons from rural areas.

No significant relationships were found between urbanity and positive attitudes for either Blacks or Whites.

Past research has been conflicting, some finding differences between the attitudes of rural and urban subjects, others finding no difference. Previous research also indicated that the percentage of Blacks in the home region of Whites was a determinant of intolerance toward Blacks.

The difficulty in the interpretation of this hypothesis is that concentration of Blacks may not equally affect contact due to structural boundaries of suburb versus ghetto or rural estate versus sharecropper.

Therefore, this hypothesis is another example of a variable which cannot be analyzed in a univariate manner.

Attitudes and Race

H-9: There is a difference between the attitudes of racial groups.

The results of the analysis indicated a significant relationship between race and attitudes. Blacks were more positive to Whites on Levels 1, 2, and 6 (stereotypic, normative, and action). Whites were more positive toward Blacks on Levels 3, 4, and 5 (moral, hypothetical, and feeling).

Blacks see the norms of society as being better for Whites than for themselves. Moreover, they see themselves having more actual activity with Whites than Whites do with Blacks. On the other hand, Whites see that society should do more for Blacks than it does (moral evaluation level). They also hypothetically feel they ought to interact more with Blacks than they do (Level 4) and, finally, that Whites think their feelings toward Blacks should be more positive than they actually are.

Attitudes and Geographic Location

H-10: Geographically, there is no difference in racial attitudes of rehabilitation counselor trainees toward members of the opposite race.

Analysis of the data supported this hypothesis. Based on the item and its foils, one interpretation that can be made is that the section of the United States in which a respondent spent the first 21 years of his life is related to his racial attitudes. In this

interpretation the range of the age of the respondents must again be considered because some of them were 30 or 40 years old. Therefore, since the item asked where the person spent the first 21 years of his life, it did not account for years after that. Any interpretation of this result for subjects over 21 years of age should consider this fact.

Since the mean age of the subjects was in the early twenties, interpretation is possible only when one is mindful of the possibility that some people may have moved to various parts of the country and have had their racial attitudes affected by different regions. Being aware of these cautions, the following observations are made:

An examination of Table 14 indicates that the cell means for the North and South are very similar except at Level 3 (moral evaluation). This fact, in a sense, supports the belief of the researcher who believed the stereotyping of the South as having more negative racial attitudes than the North was not justified.

An overt manifestation, such as de facto segregation in a particular region, may be spotlighted as racist while more subtle de jure manifestations of negative racial attitudes, such as restricted neighborhoods, may go unnoticed.

Attitudes and Sex

H-11: There is a difference in the racial attitude scores of males and females.

This hypothesis was supported, thereby indicating a significant relationship between attitudes and sex.

In the examination of the cell means, it was found that females have more positive racial attitudes than males at all but Level 1

(stereotypic) and Level 6 (action) on the ABS: BW/WN. This may imply that while females are more positive than males at the normative, moral, hypothetical, and feeling levels, they are less positive than males at the stereotypic and action levels.

Simplex Approximation

H-12: The ABS: BW/WN will form a Guttman Simplex for each of the racial groups.

This hypothesis was not supported as it had been in other studies with a different attitude object.

A possible interpretation is that the principle of contiguity, which states that correlations should increase in size in the rows and columns as they progress toward the diagonal, with the largest correlations being in the diagonal, may not hold in volatile attitude areas such as racial attitudes.

Recommendations

In this section the limitations of the study regarding the nature of the population, procedures, and instrumentation are stated. Also, additional analysis techniques are suggested which would be useful in further analysis of similar data.

Nature of the Population

The use of rehabilitation counselor trainees in this study must be viewed as only a first step in a series to reach the goal of clearer understanding of racial attitudes. A more complete study would have been the use of the rehabilitation counselor trainee and the rehabilitation counselor in the field. Perhaps more emphasis in the future should be placed on the racial attitude of those working with the racially

different and the effect racial attitudes have on the counseling process. Another direction would be to incorporate the knowledge from this study and use it to study the modification or change of racial attitudes.

From this study the complexity of the contact variable indicated that not only contact per se but "quality of contact" is a significant factor that should be further researched.

Procedures

The difficulty of securing 100 per cent response and the smaller number of Blacks in programs resulted in approximately 14 times as many Whites as Blacks in the study. For future research a pre-established system which places emphasis on a stratified sampling by race would be most important.

Since this study was of the mail-in variety, inherent were the problems of partial and incomplete returns. A partial return was one in which fewer sheets were returned than had been sent out. Incomplete returns were those in which the person did not answer all items. Future studies should set up in advance the procedures that will deal with these problems.

To deal effectively with partial returns, a test to establish equivalency groups should be used; for example, if 10 out of 15 people responded, what would be the response of the remaining 5? This is basically a problem of external validity. With the incomplete answer sheets, two possible approaches could be taken. One is to acknowledge how many answer sheets were not complete, and the other would be to use a multiple regression formula to predict what a person would have answered on the basis of the items he completed.

This study did not provide for the administration of the ABS: BW/WN on one particular date by all participating programs. Therefore, the scales were given at different times. Further research by a similar method should either make arrangements to have all schools administer the scales at the same time or make provisions for a trend analysis. Another problem was the variability of the settings in which the scales were administered and also the variability of the people who gave the instructions prior to taking the scale. Sampling procedures were not optimal for this because it was done by schools rather than by individuals.

Returns represented about 40 per cent of the total reported enrollment of the rehabilitation counselor training programs; this breakdown is presented in Table 18.

TABLE 18

SUBJECTS COMPARED TO ESTIMATED POPULATION

Subjects	Estimated Population
709 White	1,530 White
<u>57</u> Black	<u>199</u> Black
766	1,729

Since the respondents represent less than half of the estimated population, this study is greatly limited in its external validity.

Instrumentation

The problems of using a paper-and-pencil test of the length of the ABS: BW/WN were that many factors may affect the answer sheets, such as errors in reading the instructions and, perhaps, in marking the wrong space on the IBM answer sheet; for example, if a person wanted to

answer 3 and marked 4. For the former, the ABS has been revised to incorporate many of the improvements which resulted from this study. In this revision the instructions were made clearer and ambiguous items were reworked. Regarding the latter problem of marking the wrong number, perhaps an answer sheet should have the same number of spaces as foils; for example, if there are 3 foils, only 3 spaces should be provided on the answer sheets. This would eliminate the problem of marking the wrong space.

Recommended Analytical Procedures

Previous studies (Erb, 1969; Hamersma, 1969; and Harrelson, 1970) used correlational analysis and the Kaiser Test (Q^2), but this study was the first in this project to use the multivariate analysis of variance (MANOVA) procedures which gave added dimensions to the past correlational analyses.

Simplex Approximation Test

Kaiser (1962) formulated a procedure for scaling the variables of a Guttman simplex. His procedure ordered the variables and suggested a measure of the goodness of fit of the scale to the obtained data. The approach developed by Kaiser may be seen as performing two functions: (a) a "sorting" of virtually all possible arrangements of data so as to generate the best empirically possible simplex approximation; and (b) an assignment of a descriptive statistic, " Q^2 ," to specified matrices. The index \underline{Q}^2 was a descriptive one, with a range of 0.00 to 1.00.

A computer program is developed which (a) reordered the level members of a semantic path, by Kaiser's procedures, so as to generate the best empirically possible simplex approximation; and (b) calculated \underline{Q}^2

for the hypothesized (theoretical) ordering and for the empirically best ordering of members in a semantic path.

There is no significance test available for the values of the Q^2 test. Therefore, statistical comparisons that involved significance levels are not made across matrices--i.e., from simplex approximation to simplex approximation.

The simplex approximation test could be used to obtain data which would enable testing of the hypothesis that the Q^2 of the theoretical ordering would approximate the Q^2 of the empirically best ordering of level members of the ABS: BW/WN for each of the groups.

Multidimensional/Multivariate Statistics

Until recently only one type of profile analysis had been in general use; i.e., scalogram analysis (Guttman, 1950). Scalogram analysis has frequently been employed to investigate whether the profiles of individual subjects from a particular kind of unidimensional structure. For data which did not render such a scale, an appropriate technique of analysis had been developed only recently. The program, called the Guttman-Lingoes Multidimensional Scalogram Analysis I-G-L-MSA-I (Guttman and Schlesinger, 1966) renders a space in which subjects are represented as points, variables as partitions, and categories of the variables as regions of the partitions. The program calculates coordinates for each point in a space with the smallest possible number of dimensions. The MSA-I program enables the following kind of questions to be asked: (a) what are the profiles of individual subjects with regard to relevant variables and (b) how are these profiles related to each other?

The MSA-I is a useful tool for describing typologies when there are a great number of variables and profiles. In practice the data usually reveal some deviation from the n-dimensional representation given by the MSA-I. The degree of deviation is indicated by the coefficient of contiguity (Lingoes, 1966), which may vary in principle from 0 (no fit) to 1 (perfect fit).

The investigator faced with a space diagram (see Bloombaum, 1968, and Jordan, 1968, for examples) printed out by the computer is sometimes left with some freedom in deciding exactly where to draw the boundary lines, especially where there is no dense collection of points in the space. There is always the problem of interpreting the space, and for this an a priori facet theory of content is useful. In the absence of a sharp content theory, MSA-I is a powerful tool for testing certain kinds of hypotheses concerning typologies and their relationship to each other. When there is no theory on which such hypotheses can be based beforehand, the MSA is often suggestive of new hypotheses and further kinds of analysis.

When this technique is implemented on the computer, a more complete analysis would be possible.

Implications for Practice and Research

The assessment of attitudes in general and racial attitudes in particular were not regarded in this study as an end in itself.

Having once understood the components of an attitude, it becomes necessary to develop ways in which attitudes can be accurately assessed and/or modified. This study has explored the Guttman facet analysis of racial attitudes with the following implications:

First, this analysis has facilitated an understanding of the dimensions of an attitude as reflected in the six levels at which racial attitudes can be structured.

Second, this study demonstrated relationships between such factors as race, contact, and attitude. By isolating these factors and studying the relationship to each, it became possible to conclude that a person's attitudes are not determined by one variable alone.

The multivariate determination of attitudes is clearly seen in the contact variable which had several dimensions. Previous considerations of attitudinal modification have largely considered the variable without recognizing that there are various types of contact possible with an attitude object. This study considered the contact variable as having five components: kind of contact, amount of contact, ease of avoidance of contact, gain from contact, and enjoyment of contact.

In the analysis procedures used it was concluded that the bivariate correlations did not adequately show the relationship between the contact variable's components and the attitude score due to the problem of multicollinearity which is a relationship among correlated predictor variables. In order to deal with this problem, a "multiple add" type of multiple correlation program was run on the same data, the results of which are in Appendix K.

The use of this particular analysis made it possible to see which combinations of predictor variables were most useful.

Summary

1. Amount of education did not show a strong relationship to favorable attitudes toward members of the opposite race.

2. Age was not related to attitudes for Whites, but it was for Blacks at certain levels of the ABS: BW.
3. Efficacy, which tests man's sense of control over his environment, was related to positive attitudes for Whites at two levels of the ABS: W/N, while no relationship for Blacks between efficacy and attitudes was found.
4. Among the contact variables, "enjoyment of contact" was the most significant predictor of favorable attitudes for Whites toward Blacks.
5. The relationship between reported prejudice and attitudes yielded significant results, while urbanity did not.
6. There was no significant difference of the attitude scores based on a multivariate analysis of religious or political affiliation.
7. A significant difference was found for race, geographic location, and sex via multivariate analysis.

This study indicated the complexity of racial attitudes and the difficulties encountered during such research. The study does not purport to answer all of the many questions that arise in connection with this complex topic but, rather, is exploratory, while at the same time specifying relationships between variables that may be useful for further research.

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APPENDICES

APPENDIX A

GLOSSARY

GLOSSARY

Approximation--See "simplex approximation."

Attitude--"Delimited totality of behavior with respect to something"

(Guttman, 1950, p. 51).

¹
Conjoint¹ struction--See also "struction," "disjoint struction"--"operationally defined as the ordered sets of . . . five facets from low to high across all five facets simultaneously" (Jordan, 1968, p. 76); that part of the semantic structure of attitude items which can be determined independently of specific response situations.

Content--situation (action, feeling, comparison, circumstances) indicated in an attitude item; generally corresponds to "disjoint struction."

Definitional statement--Specification of characteristics proper to an item of a given level member, typically stated in phrase or clause form.

Definitional system--ordered group of definitional statements or of the corresponding level members; typically either the group constituting a "semantic path" or the complete group of 12 level members in the "semantic map."

Directionality--Characteristic of an item, sometimes called positive or negative, determining agreement with the item as indicating favorableness or unfavorableness toward the attitude object.

¹See footnote on Table 3.

²
 Disjoint struction--See also "struction," "conjoint struction"--that part of the semantic structure of attitude items which is directly dependent on specification of situation and object; a more precise term than "content."

Element--One of two or more ways in which a facet may be expressed; in the present system, all conjoint facets are dichotomous, expressed in one

facet--One of several semantic units distinguishable in the verbal expression of an attitude; in the present system, five dichotomous facets are noted within the conjoint struction.

Facet profile--See "struction profile."

Level--Degree of attitude strength specified by the number of strong and weak facets in the member(s) of that level; in the present system, six ordered levels are identified: Level I is characterized by the unique member having five weak facets; Level II, by members having four weak and one strong facet . . . Level VI, by the unique member having five strong facets.

Level member--One of one or more permutation(s) of strong and weak facets which are common to a given level; in the present system, 12 level members have been identified: three on Level II, four on Level III, two on Level IV, and one each on Levels I, V, and VI.

Map--See "semantic map."

Member--See "level member."

Path--See "semantic path."

Profile--See "struction profile."

²See footnote on Table 3.

Reversal--Change in a specified order of levels or of correlations, involving only the two indicated levels or correlations.

Semantic--Pertaining to or arising from the varying meanings, grammatical forms, or stylistic emphasis of words, phrases, or clauses.

Semantic map--Two-dimensional representation of hypothesized relationships among six levels and among 12 level members.

Semantic path--Ordered set of level members, typically six, such that each member has one more strong facet than the immediately preceding member and one less strong facet than the immediately following member.

Semantic possibility analysis--Linguistic discussion of the implications of the five dichotomous conjoint facets identified in the present system; of 32 permutations, only 12 are considered logically consistent.

Simplex--Specific form of (correlation) matrix, diagonally dominated and decreasing in magnitude away from the main diagonal; see Table 9 for comparison of equally spaced and unequally-spaced diagonals.

Simplex approximation--Matrix which approaches more or less perfectly the simplex form; existing tests (Kaiser, 1962; Mukherjee, 1966) reflects both ordering of individual entries and sizes of differences between entries and between diagonals.

Strong(er)--Opposite of weak(er)--term functionally assigned to one of two elements, to a facet expressed by its strong element, or to a level member characterized by more strong facets than another level member; the strong-weak continuum is presently examined as unidimensional.

Struction--See also "conjoint struction," "disjoint struction"--
semantic pattern identifiable in any attitude item, or the
system of such identifications.

Struction profile--Specification, typically indicated by small letters
and numerical subscripts, of the permutation(s) of weak and
strong elements or facets in a level member or a set of level
members; or of permutations of disjoint elements or facets.

Transposition--change in a specified order of levels or of correlations
involving a change in position of one level or correlation and
the corresponding one-place shift in the position of following or
preceding levels or correlations.

Weak--Opposite of "strong" (which see).

APPENDIX B.1

ATTITUDE BEHAVIOR SCALE: B/W-G

ATTITUDE BEHAVIOR SCALE - BW-G

DIRECTIONS

This booklet contains statements of how people behave in certain situations or feel about certain things. You yourself or other Black persons often behave in the same way toward Whites. You also have some general ideas about yourself, about other Black persons like you, and about Whites. Sometimes you feel or behave the same way toward everyone, and sometimes you feel or behave differently toward Whites.

This questionnaire has statements about ideas and about behavior. Each statement of this questionnaire is different from every other section, although some of the statements in each section are similar. Your answers in one section, therefore, may be the same as answers in another section, or your answers may differ from section to section. Here is a sample statement:

Sample 1

1. Chance of Whites being taller

- ① less chance than Blacks
- 2. about the same
- 3. more chance than Blacks

If other Blacks believe that Whites have less chance than Blacks to be taller, you should circle the number 1 as shown above or if you are using an IBM answer sheet make a heavy dark line on the answer sheet between the two lines after the number as follows:

1. 1 ===== 2 ===== 3 ===== 4 ===== 5 =====

***** DO NOT PUT YOUR NAME ON THE BOOKLET *****

by: Richard J. Hamersma
John E. Jordan
College of Education
Michigan State University

Revised by:

Arthur E. Dell Orto
May, 1969

ABS-I-BW-G

Directions: Section 1

This section contains statements about ideas which most other Blacks have about Whites. Circle or fill in the answer sheet number that indicates how other Blacks compare themselves with Whites. Please answer all questions.

Other Blacks believe the following things about Blacks as compared to Negroes:

1. Blacks can be trusted with money
 1. more than Whites
 2. about the same as Whites
 3. less than Whites
2. Blacksfamilies are closely knit
 1. more often than Whites
 2. about as often as Whites
 3. less often than Whites
3. Black's intellectual ability is
 1. more than Whites
 2. about the same as Whites
 3. less than Whites
4. Blacks desire a higher education
 1. more often than Whites
 2. about as often as Whites
 3. less often than Whites
5. Blacks help their neighbors
 1. more than Whites
 2. about the same as Whites
 3. less than Whites
6. Black neighborhoods are safe
 1. more often than White ones
 2. about as often as White ones
 3. less often than White ones

ABS-I-BW-G

Other Blacks believe the following things about Blacks as compared to Whites:

7. Blacks obey job rules and regulations
 1. more than Whites
 2. about the same as Whites
 3. less than Whites
8. Blacks enjoy working with Whites
 1. more than Whites do with Blacks
 2. about the same as Blacks
 3. less than Whites do with Blacks
9. Blacks resist arrest
 1. less than Whites
 2. about the same as Whites
 3. more than Whites
10. Blacks are victims of "police brutality"
 1. less than Whites
 2. about the same as Whites
 3. more than Whites
11. Blacks mis-use trial-by-jury
 1. less often than Whites
 2. about as often as Whites
 3. more often than Whites
12. Blacks vote for White candidates for public office
 1. more than Whites do for Blacks
 2. about the same as Whites
 3. less than Whites do for Blacks
13. Black desire draft deferments
 1. less often than Whites
 2. about as often as Whites
 3. more often than Whites
14. Blacks are careful with weapons
 1. more often than Whites
 2. about as often as Whites
 3. less often than Whites

ABS-II-BW-G

Directions: Section II

This section contains statements about things which other Blacks like you may believe about Whites. Please choose the answer that indicates what you think others believe about Whites.

Most Blacks generally believe the following about Whites:

15. Blacks believe they can trust Whites with money
 1. disagree
 2. uncertain
 3. agree
16. Blacks believe that White families are as closely knit as their own
 1. disagree
 2. uncertain
 3. agree
17. Blacks believe their intellectual ability is the same as Whites
 1. disagree
 2. uncertain
 3. agree
18. Blacks desire to share their higher education with Whites
 1. disagree
 2. uncertain
 3. agree
19. Blacks like to help White neighbors
 1. disagree
 2. uncertain
 3. agree
20. Blacks believe that White neighborhoods are safe to live in
 1. disagree
 2. uncertain
 3. agree

ABS-II-BW-G

Most Blacks generally believe the following about Whites:

21. Blacks believe they obey job rules and regulations the same as Whites
 1. disagree
 2. uncertain
 3. agree
22. Blacks believe they enjoy working with Whites
 1. disagree
 2. uncertain
 3. agree
23. Blacks believe in resisting arrest from White officials
 1. agree
 2. uncertain
 3. disagree
24. Blacks believe they are the victims of "police brutality" from Whites
 1. agree
 2. uncertain
 3. disagree
25. Blacks believe in misuse of trial-by-jury when they deal with Whites
 1. certain
 2. uncertain
 3. agree
26. Blacks believe in voting with Whites for White candidates for public office
 1. disagree
 2. uncertain
 3. agree
27. Blacks believe in being given draft deferments equal with Whites
 1. disagree
 2. uncertain
 3. agree
28. Blacks believe in being as careful with their weapons as Whites are
 1. disagree
 2. uncertain
 3. agree

ABS-III-BW-G

Directions: Section III

This section contains statements about ways in which you yourself should act toward Whites. Please choose the answer that indicates how you feel you should act or believe.

In respect to Whites, do you yourself believe that it is usually right or usually wrong:

29. To trust Whites with money is
 1. usually wrong
 2. undecided
 3. usually right
30. To expect White families to be as closely knit as Black ones is
 1. usually wrong
 2. undecided
 3. usually right
31. To expect Whites intellectual ability to be the same as Blacks is
 1. usually wrong
 2. undecided
 3. usually right
32. To expect Whites to desire a higher education as much as Blacks is
 1. usually wrong
 2. undecided
 3. usually right
33. To expect Blacks to help White neighbors is
 1. usually wrong
 2. undecided
 3. usually right
34. To expect Blacks to believe that White neighborhoods are safe for them is
 1. usually wrong
 2. undecided
 3. usually right
35. To expect Blacks to obey job rules and regulations the same as Whites
 1. usually wrong
 2. undecided
 3. usually right

ABS-III-BW-G

In respect to Whites do you yourself believe that it is usually right or usually wrong:

36. To expect Blacks to enjoy working with Whites is
 1. usually wrong
 2. undecided
 3. usually right
37. To expect Blacks to resist arrest from White officials is
 1. usually right
 2. undecided
 3. usually wrong
38. To expect Blacks to be the victims of "police brutality" from Whites is
 1. usually right
 2. undecided
 3. usually wrong
39. To expect Blacks to misuse trial-by-jury when they deal with Whites is
 1. usually right
 2. undecided
 3. usually wrong
40. To expect Blacks to vote with Whites for White candidates for public office is
 1. usually wrong
 2. undecided
 3. usually right
41. To expect Blacks to be given equal draft deferments with Whites is
 1. usually wrong
 2. undecided
 3. usually right
42. To expect Blacks to be as careful with their weapons as Whites are is
 1. usually wrong
 2. undecided
 3. usually right

ABS-IV-BW-G

Directions: Section IV

This section contains statements about how you think you would act toward Whites. Choose the answer that indicates how you think you would act.

In respect to a White person would you yourself:

43. I would trust Whites with money
1. no
 2. undecided
 3. yes
44. I would want my family to be as closely knit as White families are
1. no
 2. undecided
 3. yes
45. I would want the same intellectual ability as Whites
1. no
 2. undecided
 3. yes
46. I would want to have the same desire Whites do for a higher education
1. no
 2. undecided
 3. yes
47. I would help White neighbors
1. no
 2. undecided
 3. yes
48. I would want Black neighborhoods to be as safe as White ones
1. no
 2. undecided
 3. yes
49. I would obey job rules and regulations the same as Whites
1. no
 2. undecided
 3. yes
50. I would enjoy working with Whites
1. no
 2. undecided
 3. yes

ABS-IV-BW-G

In respect to a White person would you yourself:

51. I would resist arrest if arrested by Whites.

1. yes
2. undecided
3. no

52. I would expect "police brutality" from Whites

1. yes
2. undecided
3. no

53. I would use trial-by-jury the same when dealing with Whites as with Blacks.

1. no
2. undecided
3. yes

54. I would vote for a White candidate for public office.

1. no
2. undecided
3. yes

55. I would want Whites to be given the same draft deferments that Blacks get

1. no
2. undecided
3. yes

56. I would want to be as careful with my weapons as I think Whites are.

1. no
2. undecided
3. yes

ABS-V-BW-G

Directions: Section V

This section concerns actual feelings that Black people may have about Whites. You are asked to indicate how you feel about the following statements.

How do you actually feel toward Whites:

57. When Blacks trust Whites with money I feel

1. bad
2. indifferent
3. good

58. When Black families are as closely knit as I think White families are I feel

1. bad
2. indifferent
3. good

59. When Blacks' intellectual ability is the same as Whites I feel

1. bad
2. indifferent
3. good

60. When Whites desire a higher education as much as Blacks do, I feel

1. bad
2. indifferent
3. good

61. When Blacks help White neighbors, I feel

1. bad
2. indifferent
3. good

62. When Blacks are safe in White neighborhoods, I feel

1. bad
2. indifferent
3. good

63. When Whites obey job rules and regulations with Blacks, I feel

1. dissatisfied
2. indifferent
3. satisfied

64. When Whites enjoy working with Blacks, I feel

1. bad
2. indifferent
3. good

ABS-V-BW-G

How do you actually feel toward Whites:

65. When Whites resist arrest the same as Blacks, I feel
1. discontent
 2. indifferent
 3. content
66. When Whites use "police brutality" the same as Blacks do, I feel
1. bad
 2. indifferent
 3. good
67. When trial-by-jury is used the same with Whites and Blacks, I feel
1. angry
 2. indifferent
 3. happy
68. When Whites vote for Black candidates for public office, I feel
1. bad
 2. indifferent
 3. good
69. When Whites are given the same draft deferments as Blacks, I feel
1. discontent
 2. indifferent
 3. content
70. When Blacks are as careful with their weapons as Whites, are, I feel
1. dissatisfied
 2. indifferent
 3. satisfied

ABS-VI-BW-G

Directions: Section VI

This section concerns actual experiences you have had with Whites. Try to answer the following questions from the knowledge of your experiences.

Experiences or contacts with Whites:

71. I have trusted Whites with money

1. no experience
2. no
3. uncertain
4. yes

72. I have seen that White families are as closely knit as Black ones

1. no experience
2. no
3. uncertain
4. yes

73. My intellectual ability is equal to the Whites I know

1. no experience
2. no
3. uncertain
4. yes

74. I have wanted a higher education as much as the Whites I have known

1. no experience
2. no
3. uncertain
4. yes

75. I have helped a White neighbor

1. no experience
2. no
3. uncertain
4. yes

76. I have felt safe when in White neighborhoods

1. no experience
2. no
3. uncertain
4. yes

77. I have seen that Whites obey job rules and regulations when working with

1. no experience
2. no
3. uncertain
4. yes

ABS-VI-BW-G

Experiences or contacts with Whites:

78. I have enjoyed working with Whites

1. no experience
2. no
3. uncertain
4. yes

79. I have resisted arrest by Whites

1. no experience
2. yes
3. uncertain
4. no

80. I have been the victim of "police brutality" from Whites

1. no experience
2. yes
3. uncertain
4. no

81. I have seen Whites misuse trial-by-jury with Negroes

1. no experience
2. yes
3. uncertain
4. no

82. I have seen that Whites vote for Black candidates for public office

1. no experience
2. no
3. uncertain
4. yes

83. I have seen that Whites are given draft deferments the same as Blacks

1. no experience
2. no
3. uncertain
4. yes

84. I have seen Whites who were as careful with their weapons as Blacks

1. no experience
2. no
3. uncertain
4. yes

ATTITUDE BEHAVIOR SCALE - ABS-BW-D

This part of the questionnaire deals with many things. For the purpose of this study, the answers of all persons are important.

Part of the questionnaire has to do with personal information about you. Since the questionnaire is completely anonymous or confidential, you may answer all of the questions freely without any concern about being indentified. It is important to the study to obtain your answer to every question.

Please read each question carefully and do not omit any questions. Please answer by circling the answer or marking the space on the IBM answer sheet.

85. Please indicate your sex.

1. Female
2. Male

86. Please indicate your age as follows:

1. Under 20
2. 21-30
3. 31-40
4. 41-50
5. 51 - over

87. What is your marital status?

1. Married
2. Single
3. Divorced
4. Widowed
5. Separated

88. What is your religion?

1. I prefer not to answer.
2. Catholic
3. Protestant
4. Jewish
5. Other

89. Please indicate training level

1. First year Masters level
2. Second year Masters level
3. First year Doctoral
4. Second year Doctoral
5. Third year Doctoral or beyond

90. Some people feel that in bringing up children, new ways and methods should be tried whenever possible. Others feel that trying out new methods is dangerous. What is your feeling about the following statement?

"New methods of raising children should be tried whenever possible."

1. Strongly disagree
2. Slightly disagree
3. Slightly agree
4. Strongly agree

91. Family planning on birth control has been discussed by many people. What is your feeling about a married couple practicing birth control?

1. It is always wrong
2. It is usually wrong
3. It is probably all right
4. It is always right

92. The following questions have to do with kinds of experiences you have had with Whites. If more than one experience applies, please choose the answer with the highest number.
1. I have read or studied about Whites through reading, movies, lecture, or observation.
 2. A friend or relative is a White person.
 3. I have personally worked with Whites as a teacher, counselor, volunteer, child care, etc.
 4. Close friend or relative is married to a White.
 5. I am married to a White.
93. Considering all of the times you have talked, worked, or in some other way had personal contact with Whites, about how much has it been altogether?
1. Only a few casual contacts.
 2. Between one and three months
 3. Between three and six months
 4. Between six months and one year
 5. More than one year of contact
94. When you have been in contact with Whites, how easy for you, in general, would you say it would have been to have avoided being with them?
1. I have had no contact
 2. I could generally have avoided these personal contacts only at great cost or difficulty
 3. I could generally have avoided these personal contacts only with considerable difficulty
 4. I could generally have avoided these personal contacts but with some inconvenience
 5. I could generally have avoided these personal contacts without any difficulty or inconvenience.

-4-

95. If you have ever worked with Whites for personal gain (for example, for money or some other gain) what opportunities did you have (or do you have) to work at something else instead; that is, something else that was (is) acceptable to you as a job?
1. No such experience
 2. No other job available
 3. Other jobs available not at all acceptable to me
 4. Other jobs available were not quite acceptable to me
 5. Other jobs available were fully acceptable to me
96. How have you generally felt about your experiences with Whites?
1. No experience
 2. I definitely dislike it
 3. I did not like it very much
 4. I like it somewhat
 5. I definitely enjoyed it
97. Which of the following do you think would have the effect of reducing racial prejudice in America? Circle only one or mark only one on the IBM answer sheet.
1. Integration of schools
 2. Publicity campaigns to promote integration
 3. Fair employment legislation
 4. Open housing legislation
 5. Direct, personal contact between members of various racial groups
98. What political affiliation do you hold?
1. Republican
 2. Democrat
 3. Independent
 4. Other

-5-

99. How would you rate your own racial attitudes as compared to the average person?
 1. Very much more prejudiced
 2. Somewhat more prejudiced
 3. About the same
 4. Somewhat less prejudiced
 5. Very much less prejudiced
100. To which racial group do you belong?
 1. prefer not to answer
 2. White
 3. Black
 4. Oriental
 5. Other
101. Where were you mainly reared on "brought up" is your youth (that is up to age 21)?
 1. country
 2. country town
 3. city suburb
 4. city
102. What part of the U.S. did you spend most of your life in up to age 21?
 1. South
 2. West
 3. Midwest
 4. East
 5. North (includes Puerto Rico)

LIFE SITUATIONS

This section of the booklet deals with how people feel about several aspects of life or life situations. Please indicate how you feel about each situation by circling the answer you choose or marking on the IBM answer sheet.

- | | |
|---|---|
| <p>103. It should be possible to eliminate \longleftrightarrow war once and for all</p> <ol style="list-style-type: none"> 1. strongly disagree 2. disagree 3. agree 4. strongly agree | <p>104. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not sure at all 2. not very sure 3. fairly sure 4. very sure |
| <p>105. Success depends to a large part on luck and fate</p> <ol style="list-style-type: none"> 1. strongly agree 2. agree 3. disagree 4. strongly disagree | <p>106. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not sure at all 2. not very sure 3. fairly sure 4. very sure |
| <p>107. Someday most of the mysteries of the world will be revealed by science</p> <ol style="list-style-type: none"> 1. strongly disagree 2. disagree 3. agree 4. strongly agree | <p>108. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not sure at all 2. not very sure 3. fairly sure 4. very sure |
| <p>109. By improving industrial and agricultural methods, poverty can be eliminated in the world</p> <ol style="list-style-type: none"> 1. strongly disagree 2. disagree 3. agree 4. strongly agree | <p>110. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not very sure at all 2. not very sure 3. fairly sure 4. very sure |
| <p>111. With increased medical knowledge, it should be possible to lengthen the average life span to 100 years or more</p> <ol style="list-style-type: none"> 1. strongly disagree 2. disagree 3. agree 4. strongly agree | <p>112. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not very sure at all 2. not very sure 3. fairly sure 4. very sure |

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113. Someday the deserts will be converted into good farming land by the application of engineering and science
1. strongly disagree
 2. disagree
 3. agree
 4. strongly agree
114. How sure do you feel about your answer?
1. not sure at all
 2. not very sure
 3. fairly sure
 4. very sure
115. Education can only help people develop their natural abilities; it cannot change people in any fundamental way.
1. strongly agree
 2. agree
 3. disagree
 4. strongly disagree
116. How sure do you feel about your answer?
1. not sure at all
 2. not very sure
 3. fairly sure
 4. very sure
117. With hard work anyone can succeed
1. strongly disagree
 2. disagree
 3. agree
 4. strongly agree
118. How sure do you feel about your answer?
1. not sure at all
 2. not very sure
 3. fairly sure
 4. very sure
119. Almost every present human problem will be solved in the future
1. strongly disagree
 2. disagree
 3. agree
 4. strongly agree
120. How sure do you feel about your answer?
1. not sure at all
 2. not very sure
 3. fairly sure
 4. very sure

APPENDIX B.2

ATTITUDE BEHAVIOR SCALE: W/N-G

ATTITUDE BEHAVIOR SCALE - WN-G

DIRECTIONS

This booklet contains statements of how people behave in certain situations or feel about certain things. You yourself or other White persons often behave in the same way toward Negroes. You also have some general ideas about yourself, about other White persons like you, and about Negroes. Sometimes you feel or behave the same way toward everyone, and sometimes you feel or behave differently toward Negroes.

This questionnaire has statements about ideas and about behavior. Each statement of this questionnaire is different from every other section, although some of the statements in each section are similar. Your answers in one section, therefore, may be the same as answers in another section, or your answers may differ from section to section. Here is a sample statement:

Sample 1

1. Chance of Negroes being taller

- ① less chance than Whites
- 2. about the same
- 3. more chance than Whites

If other Whites believe that Negroes have less chance than Whites to be taller, you should circle the number 1 as shown above or if you are using an IBM answer sheet make a heavy dark line on the answer sheet between the two lines after the number as follows:

1. 1 2 3 4 5

***** DO NOT PUT YOUR NAME ON THE BOOKLET *****

by: Richard J. Hamersma
John E. Jordan
College of Education
Michigan State University

Revised by:

Arthur E. Dell Orto
May, 1969

ABS-I-WN-G

Directions: Section 1

This section contains statements about ideas which most other Whites have about Negroes. Circle or fill in the answer sheet number that indicates how other Whites compare themselves with Negroes. Please answer all questions.

Other Whites believe the following things about Whites as compared to Negroes:

1. Whites can be trusted with money
 1. more than Negroes
 2. about the same as Negroes
 3. less than Negroes
2. White families are closely knit
 1. more often than Negroes
 2. about as often as Negroes
 3. less often than Negroes
3. White's intellectual ability is
 1. more than Negroes
 2. about the same as Negroes
 3. less than Negroes
4. Whites desire a higher education
 1. more often than Negroes
 2. about as often as Negroes
 3. less often than Negroes
5. Whites help their neighbors
 1. more than Negroes
 2. about the same as Negroes
 3. less than Negroes
6. White neighborhoods are safe
 1. more often than Negro ones
 2. about as often as Negro ones
 3. less often than Negro ones

ABS-I-WN-G

Other Whites believe the following things about Whites as compared to Negroes:

7. Whites obey job rules and regulations
 1. more than Negroes
 2. about the same as Negroes
 3. less than Negroes
8. Whites enjoy working with Negroes
 1. more than Negroes do with Whites
 2. about the same as Negroes
 3. less than Negroes do with Whites
9. Whites resist arrest
 1. less than Negroes
 2. about the same as Negroes
 3. more than Negroes
10. Whites are victims of "police brutality"
 1. less than Negroes
 2. about the same as Negroes
 3. more than Negroes
11. Whites mis-use trial-by-jury
 1. less often than Negroes
 2. about as often as Negroes
 3. more often than Negroes
12. Whites vote for Negro candidates for public office
 1. more than Negroes do for Whites
 2. about the same as Negroes
 3. less than Negroes do for Whites
13. White desire draft deferments
 1. less often than Negroes
 2. about as often as Negroes
 3. more often than Negroes
14. Whites are careful with weapons
 1. more often than Negroes
 2. about as often as Negroes
 3. less often than Negroes

ABS-II-WN-G

Directions: Section II

This section contains statements about things which other Whites like you may believe about Negroes. Please choose the answer that indicates what you think others believe about Negroes.

Most Whites generally believe the following about Negroes:

15. Whites believe they can trust Negroes with money

1. disagree
2. uncertain
3. agree

16. Whites believe that Negro families are as closely knit as their own

1. disagree
2. uncertain
3. agree

17. Whites believe their intellectual ability is the same as Negroes

1. disagree
2. uncertain
3. agree

18. Whites desire to share their higher education with Negroes

1. disagree
2. uncertain
3. agree

19. Whites like to help Negro neighbors

1. disagree
2. uncertain
3. agree

20. Whites believe that Negro neighborhoods are safe to live in

1. disagree
2. uncertain
3. agree

ABS-II-WN-G

Most Whites generally believe the following about Negroes:

21. Whites believe they obey job rules and regulations the same as Negroes
 1. disagree
 2. uncertain
 3. agree
22. Whites believe they enjoy working with Negroes
 1. disagree
 2. uncertain
 3. agree
23. Whites believe in resisting arrest from Negro officials
 1. agree
 2. uncertain
 3. disagree
24. Whites believe they are the victims of "police brutality" from Negroes
 1. agree
 2. uncertain
 3. disagree
25. Whites believe in misuse of trial-by-jury when they deal with Negroes
 1. certain
 2. uncertain
 3. agree
26. Whites believe in voting with Negroes for Negro candidates for public office
 1. disagree
 2. uncertain
 3. agree
27. Whites believe in being given draft deferments equal with Negroes
 1. disagree
 2. uncertain
 3. agree
28. Whites believe in being as careful with their weapons as Negroes are
 1. disagree
 2. uncertain
 3. agree

ABS-III-WN-G

Directions: Section III

This section contains statements about ways in which you yourself should act toward Negroes. Please choose the answer that indicates how you feel you should act or believe.

In respect to Negroes, do you yourself believe that it is usually right or usually wrong:

29. To trust Negroes with money is
 1. usually wrong
 2. undecided
 3. usually right
30. To expect Negro families to be as closely knit as White ones is
 1. usually wrong
 2. undecided
 3. usually right
31. To expect Negroes' intellectual ability to be the same as Whites is
 1. usually wrong
 2. undecided
 3. usually right
32. To expect Negroes to desire a higher education as much as Whites is
 1. usually wrong
 2. undecided
 3. usually right
33. To expect Whites to help Negro neighbors is
 1. usually wrong
 2. undecided
 3. usually right
34. To expect Whites to believe that Negro neighborhoods are safe for them is
 1. usually wrong
 2. undecided
 3. usually right
35. To expect Whites to obey job rules and regulations the same as Negroes is
 1. usually wrong
 2. undecided
 3. usually right

ABS-III-WN-G

In respect to Negroes do you yourself believe that it is usually right or usually wrong:

36. To expect Whites to enjoy working with Negroes is
 1. usually wrong
 2. undecided
 3. usually right
37. To expect Whites to resist arrest from Negro officials is
 1. usually right
 2. undecided
 3. usually wrong
38. To expect Whites to be the victims of "police brutality" from Negroes is
 1. usually right
 2. undecided
 3. usually wrong
39. To expect Whites to misuse trial-by-jury when they deal with Negroes is
 1. usually right
 2. undecided
 3. usually wrong
40. To expect Whites to vote with Negroes for Negro candidates for public office is
 1. usually wrong
 2. undecided
 3. usually right
41. To expect Whites to be given equal draft deferments with Negroes is
 1. usually wrong
 2. undecided
 3. usually right
42. To expect Whites to be as careful with their weapons as Negroes are is
 1. usually wrong
 2. undecided
 3. usually right

ABS-IV-WN-G

Directions: Section IV

This section contains statements about how you think you would act toward Negroes. Choose the answer that indicates how you think you would act.

In respect to a Negro person would you yourself:

43. I would trust Negroes with money
1. no
 2. undecided
 3. yes
44. I would want my family to be as closely knit as Negro families are
1. no
 2. undecided
 3. yes
45. I would want the same intellectual ability as Negroes
1. no
 2. undecided
 3. yes
46. I would want to have the same desire Negroes do for a higher education
1. no
 2. undecided
 3. yes
47. I would help Negro neighbors
1. no
 2. undecided
 3. yes
48. I would want White neighborhoods to be as safe as Negro ones
1. no
 2. undecided
 3. yes
49. I would obey job rules and regulations the same as Negroes
1. no
 2. undecided
 3. yes
50. I would enjoy working with Negroes
1. no
 2. undecided
 3. yes

ABS-IV-WN-G

In respect to a Negro person would you yourself:

51. I would resist arrest if arrested by Negroes.
1. yes
 2. undecided
 3. no
52. I would expect "police brutality" from Negroes.
1. yes
 2. undecided
 3. no
53. I would use trial-by-jury the same when dealing with Negroes as with Whites.
1. no
 2. undecided
 3. yes
54. I would vote for a Negro candidate for public office.
1. no
 2. undecided
 3. yes
55. I would want Negroes to be given the same draft deferments that Whites get
1. no
 2. undecided
 3. yes
56. I would want to be as careful with my weapons as I think Negroes are.
1. no
 2. undecided
 3. yes

ABS-V-WN-G

Directions: Section V

This section concerns actual feelings that White people may have about Negroes. You are asked to indicate how you feel about the following statements.

How do you actually feel toward Negroes:

57. When Whites trust Negroes with money I feel

1. bad
2. indifferent
3. good

58. When White families are as closely knit as I think Negro families are I feel

1. bad
2. indifferent
3. good

59. When Whites' intellectual ability is the same as Negroes I feel

1. bad
2. indifferent
3. good

60. When Negroes desire a higher education as much as Whites do, I feel

1. bad
2. indifferent
3. good

61. When Whites help Negro neighbors, I feel

1. bad
2. indifferent
3. good

62. When Whites are safe in Negro neighborhoods, I feel

1. bad
2. indifferent
3. good

63. When Negroes obey job rules and regulations with Whites, I feel

1. dissatisfied
2. indifferent
3. satisfied

64. When Negroes enjoy working with Whites, I feel

1. bad
2. indifferent
3. good

ABS-V-WN-G

How do you actually feel toward Negroes:

65. When Negroes resist arrest the same as Whites, I feel

1. discontent
2. indifferent
3. content

66. When Negroes use "police brutality" the same as Whites do, I feel

1. bad
2. indifferent
3. good

67. When trial-by-jury is used the same with Negroes and Whites, I feel

1. angry
2. indifferent
3. happy

68. When Negroes vote for White candidates for public office, I feel

1. bad
2. indifferent
3. good

69. When Negroes are given the same draft deferments as Whites, I feel

1. discontent
2. indifferent
3. content

70. When Whites are as careful with their weapons as Negroes are, I feel

1. dissatisfied
2. indifferent
3. satisfied

ABS-VI-WN-G

Directions: Section VI

This section concerns actual experiences you have had with Negroes. Try to answer the following questions from the knowledge of your experiences.

Experiences or contacts with Negroes:

71. I have trusted Negroes with money

1. no experience
2. no
3. uncertain
4. yes

72. I have seen that Negro families are as closely knit as White ones

1. no experience
2. no
3. uncertain
4. yes

73. My intellectual ability is equal to the Negroes I know

1. no experience
2. no
3. uncertain
4. yes

74. I have wanted a higher education as much as the Negroes I have known

1. no experience
2. no
3. uncertain
4. yes

75. I have helped a Negro neighbor

1. no experience
2. no
3. uncertain
4. yes

76. I have felt safe when in Negro neighborhoods

1. no experience
2. no
3. uncertain
4. yes

77. I have seen that Negroes obey job rules and regulations when working with Whites

1. no experience
2. no
3. uncertain
4. yes

ABS-VI-BW-G

Experiences or contacts with Whites:

78. I have enjoyed working with Whites

1. no experience
2. no
3. uncertain
4. yes

79. I have resisted arrest by Whites

1. no experience
2. yes
3. uncertain
4. no

80. I have been the victim of "police brutality" from Whites

1. no experience
2. yes
3. uncertain
4. no

81. I have seen Whites misuse trial-by-jury with Negroes

1. no experience
2. yes
3. uncertain
4. no

82. I have seen that Whites vote for Black candidates for public office

1. no experience
2. no
3. uncertain
4. yes

83. I have seen that Whites are given draft deferments the same as Blacks

1. no experience
2. no
3. uncertain
4. yes

84. I have seen Whites who were as careful with their weapons as Blacks

1. no experience
2. no
3. uncertain
4. yes

ATTITUDE BEHAVIOR SCALE - ABS-WN-D

This part of the questionnaire deals with many things. For the purpose of this study, the answers of all persons are important.

Part of the questionnaire has to do with personal information about you. Since the questionnaire is completely anonymous or confidential, you may answer all of the questions freely without any concern about being identified. It is important to the study to obtain your answer to every question.

Please read each question carefully and do not omit any questions. Please answer by circling the answer or marking the space on the IBM answer sheet.

85. Please indicate your sex.

1. Female
2. Male

86. Please indicate your age as follows:

1. Under 20
2. 21-30
3. 31-40
4. 41-50
5. 51 - over

87. What is your marital status?

1. Married
2. Single
3. Divorced
4. Widowed
5. Separated

-2-

88. What is your religion?

1. I prefer not to answer.
2. Catholic
3. Protestant
4. Jewish
5. Other

89. Please indicate training level

1. First year Masters level
2. Second year Masters level
3. First year Doctoral
4. Second year Doctoral
5. Third year Doctoral or beyond

90. Some people feel that in bringing up children, new ways and methods should be tried whenever possible. Others feel that trying out new methods is dangerous. What is your feeling about the following statement?

"New methods of raising children should be tried whenever possible."

1. Strongly disagree
2. Slightly disagree
3. Slightly agree
4. Strongly agree

91. Family planning on birth control has been discussed by many people. What is your feeling about a married couple practicing birth control?

1. It is always wrong
2. It is usually wrong
3. It is probably all right
4. It is always right

-3-

92. The following questions have to do with kinds of experiences you have had with Whites. If more than one experience applies, please choose the answer with the highest number.
1. I have read or studied about Whites through reading, movies, lecture, or observation.
 2. A friend or relative is a White person.
 3. I have personally worked with Whites as a teacher, counselor, volunteer, child care, etc.
 4. Close friend or relative is married to a White.
 5. I am married to a White.
93. Considering all of the times you have talked, worked, or in some other way had personal contact with Whites, about how much has it been altogether?
1. Only a few casual contacts.
 2. Between one and three months
 3. Between three and six months
 4. Between six months and one year
 5. More than one year of contact
94. When you have been in contact with Whites, how easy for you, in general, would you say it would have been to have avoided being with them?
1. I have had no contact
 2. I could generally have avoided these personal contacts only at great cost or difficulty
 3. I could generally have avoided these personal contacts only with considerable difficulty
 4. I could generally have avoided these personal contacts but with some inconvenience
 5. I could generally have avoided these personal contacts without any difficulty or inconvenience.

-4-

95. If you have ever worked with Blacks for personal gain (for example, for money or some other gain) what opportunities did you have (or do you have) to work at something else instead; that is, something else that was (is) acceptable to you as a job?
1. No such experience
 2. No other job available
 3. Other jobs available not at all acceptable to me
 4. Other jobs available were not quite acceptable to me
 5. Other jobs available were fully acceptable to me
96. How have you generally felt about your experiences with Blacks?
1. No experience
 2. I definitely dislike it
 3. I did not like it very much
 4. I like it somewhat
 5. I definitely enjoyed it
97. Which of the following do you think would have the effect of reducing racial prejudice in America? Circle only one or mark only one on the IBM answer sheet.
1. Integration of schools
 2. Publicity campaigns to promote integration
 3. Fair employment legislation
 4. Open housing legislation
 5. Direct, personal contact between members of various racial groups
98. What political affiliation do you hold?
1. Republican
 2. Democrat
 3. Independent
 4. Other

-5-

99. How would you rate your own racial attitudes as compared to the average person?
 1. Very much more prejudiced
 2. Somewhat more prejudiced
 3. About the same
 4. Somewhat less prejudiced
 5. Very much less prejudiced
100. To which racial group do you belong?
 1. prefer not to answer
 2. White
 3. Black
 4. Oriental
 5. Other
101. Where were you mainly reared on "brought up" is your youth (that is up to age 21)?
 1. country
 2. country town
 3. city suburb
 4. city
102. What part of the U.S. did you spend most of your life in up to age 21?
 1. South
 2. West
 3. Midwest
 4. East
 5. North (includes Puerto Rico)

LIFE SITUATIONS

This section of the booklet deals with how people feel about several aspects of life or life situations. Please indicate how you feel about each situation by circling the answer you choose or marking on the IBM answer sheet.

- | | |
|---|---|
| <p>103. It should be possible to eliminate \longleftrightarrow war once and for all</p> <ol style="list-style-type: none"> 1. strongly disagree 2. disagree 3. agree 4. strongly agree | <p>104. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not sure at all 2. not very sure 3. fairly sure 4. very sure |
| <p>105. Success depends to a large part on luck and fate</p> <ol style="list-style-type: none"> 1. strongly agree 2. agree 3. disagree 4. strongly disagree | <p>106. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not sure at all 2. not very sure 3. fairly sure 4. very sure |
| <p>107. Someday most of the mysteries of the world will be revealed by science</p> <ol style="list-style-type: none"> 1. strongly disagree 2. disagree 3. agree 4. strongly agree | <p>108. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not sure at all 2. not very sure 3. fairly sure 4. very sure |
| <p>109. By improving industrial and agricultural methods, poverty can be eliminated in the world</p> <ol style="list-style-type: none"> 1. strongly disagree 2. disagree 3. agree 4. strongly agree | <p>110. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not very sure at all 2. not very sure 3. fairly sure 4. very sure |
| <p>111. With increased medical knowledge, it should be possible to lengthen the average life span to 100 years or more</p> <ol style="list-style-type: none"> 1. strongly disagree 2. disagree 3. agree 4. strongly agree | <p>112. How sure do you feel about your answer?</p> <ol style="list-style-type: none"> 1. not very sure at all 2. not very sure 3. fairly sure 4. very sure |

-7-

113. Someday the deserts will be converted into good farming land by the application of engineering and science .

1. strongly disagree
2. disagree
3. agree
4. strongly agree

115. Education can only help people develop their natural abilities; it cannot change people in any fundamental way.

1. strongly agree
2. agree
3. disagree
4. strongly disagree

117. With hard work anyone can succeed

1. strongly disagree
2. disagree
3. agree
4. strongly agree

119. Almost every present human problem will be solved in the future

1. strongly disagree
2. disagree
3. agree
4. strongly agree

114. How sure do you feel about your answer?

1. not sure at all
2. not very sure
3. fairly sure
4. very sure

116. How sure do you feel about your answer?

1. not sure at all
2. not very sure
3. fairly sure
4. very sure

118. How sure do you feel about your answer?

1. not sure at all
2. not very sure
3. fairly sure
4. very sure

120. How sure do you feel about your answer?

1. not sure at all
2. not very sure
3. fairly sure
4. very sure

APPENDIX C

CONTACT LETTER

COLLEGE OF EDUCATION • DEPARTMENT OF COUNSELING, PERSONNEL SERVICES AND EDUCATIONAL PSYCHOLOGY

June 16, 1969

Dear Colleague:

As you are aware attitudes are accepted as important determinants in rehabilitation counseling. I am currently involved in launching a "large-scale" research project on racial attitudes.

One aspect of the research project is to ascertain the attitudes of Negro and White rehabilitation counseling trainees toward the opposite race. I need your co-operation!

Will you be willing to administer an attitude scale to all your SRA trainees (levels 1-4) the first week of school in September 1969? It will take about one hour.

There will be two versions of the scale: one for Blacks and one for Whites. The content is exactly the same except for the attitude referent--i.e. Blacks or Whites.

The attitude scale was evolved in co-operation with Professor Louis Guttman of Israel and I anticipate working with him on some of the analysis.

Please indicate on the enclosed postcard if it will be possible to plan on using your students. Please also show the approximate number of Negro and White students you anticipate in your program in September.

Sincerely,

John E. Jordan
Professor
444 Erickson Hall

JEJ:rr

Enclosure

APPENDIX D

RESPONSE CARD

I will participate in the study

Yes _____

No _____

Number of scales needed

Black _____

White _____

(Name and School)

APPENDIX E

LETTER OF INSTRUCTION

COLLEGE OF EDUCATION • DEPARTMENT OF COUNSELING, PERSONNEL SERVICES AND EDUCATIONAL PSYCHOLOGY

January 7, 1970

Dear Colleague:

Enclosed are the attitudinal scales to be used in the project entitled, "Attitudes of Rehabilitation Counselor Trainees Toward the Culturally Different".

The scales to be completed by the Black students are titled ABS-BW-G. The scales to be completed by the White students are titled ABS-WN-G. All scales are to be completed on identical IBM answer sheets. Please ask each student to place this code on each answer sheet and the name of the institution. Caution the student not to put his name on the answer sheet.

Also enclosed is an stamped, self-addressed envelope to return the IBM answer sheets. Do not return the scales - only the IBM answer sheets.

If at all possible the scale should be administered before the end of September and the IBM answer sheets returned as soon as possible to begin analysis of the data.

I wish to thank you for your cooperation in this project and acknowledgments will be made to those participating in the study. I will also send you a summary of the results. Thank you again.

Sincerely,

John E. Jordan
Professor

JEJ:sam

P.S. Please place the name of the school on the answer sheet.

APPENDIX F

FOLLOW-UP LETTER

COLLEGE OF EDUCATION • DEPARTMENT OF COUNSELING, PERSONNEL SERVICES AND EDUCATIONAL PSYCHOLOGY

August 18, 1969

Dear Colleague:

The research project on Black/White attitudes is coming along well and I am anxious to know if you will be able to participate in the study.

Since I sent out the first introductory letter during the summer vacation I wonder if you may not have gotten it. Enclosed is a copy of the original letter.

Your cooperation would be greatly appreciated. I hope you will return the enclosed card so I can mail the scale to you.

Sincerely,

John E. Jordan
Professor
Rehabilitation Counseling

JEJ:rr

Enclosure

APPENDIX G

PILOT STUDY RESULTS

^a
SAMPLE SIZES, MEANS, AND STANDARD DEVIATIONS FOR THE MICHIGAN STATE
UNIVERSITY SAMPLE ON THE ABS: BW/WN RACIAL ATTITUDE STUDY
OF REHABILITATION COUNSELOR TRAINEES

Variable			Range ^a of Means		Blacks (12)		Whites (73)	
					Mean	S.D.	Mean	S.D.
Attitude Content	1. Stereotype	14-42	25.50	3.50	25.44	3.11		
	2. Normative	14-42	29.08	4.44	26.06	5.91		
	3. Moral Eval.	14-42	31.17	6.10	36.38	4.30		
	4. Hypothetical	14-42	34.17	5.88	37.97	2.93		
	5. Feeling	14-42	34.92	4.76	35.62	3.03		
	6. Action	14-56	39.92	8.84	38.23	7.79		
	7. Total	84-266	194.75	19.83	199.70	14.83		
Value	8. Efficacy-Cont.	9-36	22.00	2.63	23.96	2.88		
	9. Efficacy-Int.	9-36	28.58	4.48	28.25	2.95		
Contact	10. Kind	1-5	2.92	0.67	2.62	1.10		
	11. Amount	1-5	4.67	1.16	4.04	1.44		
	12. Avoidance	1-5	3.17	1.27	4.13	0.97		
	13. Gain	1-5	3.58	1.62	2.47	1.83		
	14. Enjoyment	1-5	4.33	0.78	4.56	0.73		
Change Orienta- tion	15. Child Rearing	1-4	3.33	0.65	3.19	0.70		
	16. Birth Control	1-4	3.17	1.03	3.68	0.71		
	17. Prejudice-Comp.	1-5	4.00	1.21	4.37	0.61		
Demo- graphic	18. Age	1-5	2.17	0.84	2.19	0.56		
	19. Educ. Amount	1-5	1.18	0.41	1.15	0.66		
	20. Urbanity	1-4	3.50	0.67	2.85	0.91		
	21. South/North	1-5	2.25	1.66	3.30	0.62		

^aSee ABS: BW/WN research instrument 112270 for meaning of means; e.g., a mean age of 2.16 indicates a group mean of slightly over 30 years of age.

John E. Jordan
Arthur Dell Orto
December 4, 1969

APPENDIX H

LIST OF CONTACTED SCHOOLS

TABLE 19
LIST OF CONTACTED SCHOOLS

Schools Contacted	Responses		Data Returned	
	Yes	No	Yes	No
Alabama				
University of Alabama	x		x	
Auburn University	x		x	
Arizona				
University of Arizona	x		x	
Arkansas				
Arkansas State University	x		x	
California				
California State College at Los Angeles	x			x
Sacramento State College	x		x	
San Diego State College	No Response			
San Francisco State College	x		x	
University of Southern California, Los Angeles		x		
Connecticut				
University of Connecticut	x			x
District of Columbia				
George Washington University	x		x	
Florida				
Florida State University	No Response			
University of Florida	x		x	
Georgia				
Georgia State College	x			x
University of Georgia	x		x	

TABLE 19---Continued

Schools Contacted	Responses		Data Returned	
	Yes	No	Yes	No
Illinois				
DePaul University	x		x	
Southern Illinois University	x			x
University of Illinois	x		x	
Illinois Institute of Technology	x		x	
Iowa				
The University of Iowa	x		x	
Kansas				
Kansas State Teachers College	x		x	
Kentucky				
University of Kentucky	x		x	
Louisiana				
University of Southwestern Louisiana	x		x	
Maryland				
University of Maryland	x		x	
Massachusetts				
Assumption College	No Response			
Boston University School of Education	x			x
Springfield College	x		x	
Michigan				
Michigan State University	x		x	
Wayne State University	x		x	
Minnesota				
Mankato State College	x		x	
University of Minnesota	x		x	
St. Cloud State College	x		x	

TABLE 19--Continued

Schools Contacted	Responses		Data Returned	
	Yes	No	Yes	No
Mississippi				
Mississippi State University	x		x	
Missouri				
University of Missouri	No Response			
Montana				
Eastern Montana College	x		x	
New Jersey				
Seton Hall University	x		x	
Rutgers University	x		x	
New Mexico				
University of New Mexico	No Response			
New York				
State University of New York, Albany	x		x	
State University of New York, Buffalo	x			x
Columbia University	x		x	
Hofstra University		x		
Hunter College of the City Univer- sity of New York	x			x
New York University	x		x	
Syracuse University	x		x	
North Carolina				
East Carolina University	x		x	
University of North Carolina	No Response			
Ohio				
Bowling Green State University	x		x	
University of Cincinnati		x		
Kent State University	x			x

TABLE 19--Continued

Schools Contacted	Responses		Data Returned	
	Yes	No	Yes	No
Oklahoma				
Oklahoma State University	x		x	
Oregon				
University of Oregon	x		x	
Pennsylvania				
The Pennsylvania State University	x			x
University of Pittsburgh	x		x	
The University of Scranton	x		x	
Temple University	x		x	
Puerto Rico				
University of Puerto Rico	x		x	
South Carolina				
University of South Carolina	x		x	
Tennessee				
The University of Tennessee	x		x	
Texas				
North Texas State University	No Response			
Texas Technological College	x		x	
The University of Texas at Austin	x		x	
Utah				
University of Utah	x		x	
Virginia				
Virginia Commonwealth University	x			
Washington				
University of Washington	x			x

TABLE 19--Continued

Schools Contacted	Responses		Data Returned	
	Yes	No	Yes	No
West Virginia				
West Virginia University	x		x	
Wisconsin				
Stout State University	x		x	
University of Wisconsin, Madison	x			x
University of Wisconsin, Milwaukee	x		x	

APPENDIX I

OVERVIEW OF THE FINN PROGRAM

MULTIVARIANCE

MULTIVARIANCE-

UNIVARIATE AND MULTIVARIATE ANALYSIS OF VARIANCE AND
COVARIANCE: A FORTRAN IV PROGRAM

Version 4 - June, 1968*

Jeremy D. Finn, Department of Educational Psychology,
State University of New York at Buffalo

*This program is a modification of "Multivariate:
Fortran Program for Univariate and Multivariate Analysis
of Variance and Covariance," Department of Educational
Psychology, State University of New York at Buffalo,
May, 1967.

A Generalized Univariate and Multivariate Analysis of Variance,
Covariance, and Regression Program¹

This and the following chapters describe a computer program which is now in operation at the State University of New York at Buffalo, and elsewhere, which will perform much of the multivariate analysis reported in preceding sections. Multivariate will perform univariate and multivariate linear estimation and tests of hypotheses for any crossed and/or nested design, with or without concomitant variables. The number of observations in the subclasses may be equal, proportional, or disproportionate. The latter includes the extreme case of unequal group sizes involving null subclasses, such as might arise in the application of incomplete experimental designs.

The program performs an exact least-squares analysis by the method described by Bock (1963). It is logically divided into three phases: input, estimation, and what has been termed "analysis." The input phase allows for six possible forms of data, four controlled by variable format cards. The data may be punched as:

¹This chapter is a modified version of a paper by the same name presented at the annual meeting of SHARE (XXX), Houston, Texas, February 29, 1968.

The version of Multivariate presented in this manual was written and tested with the cooperation of the Computing Center of the State University of New York at Buffalo. The Center is partially supported by NIH Grant FR-00126 and NSF Grant GP-7318. Assistance with the programming of this version was provided by Mr. Fred Hockersmith. Several of the matrix subroutines were adopted and/or revised from those produced by the IBM Corporation (1966), and from Bock and Peterson (1967). The chi-square and F probability routines were written by Mr. Richard J. Sherin and appear in Clyde, Cramer, and Sherin (1966). Computations for the age x sex repeated measures design were performed by Mr. Roger Koehler.

1. Raw unsorted data, each observation with its own cell identification information.
2. Raw data, sorted by cells, each cell with its own header card.
3. Raw data, no header cards, in order by cells
- 4,5. Raw data to be read from an independently prepared binary tape.
6. Means, variance-covariance matrix, and cell frequencies.

The last option allows for reanalysis of data which may have been presented only in summary form, such as might be found in a text or journal article. The subclass frequencies may be highly unequal, and within the limits of the computer are not restricted in magnitude. No account need be made of numm groups; the program will automatically detect them. Options are available for reading the data from non-system binary or BCD input devices.

A variety of common data transformations is provided. In addition, the program will accept a matrix transformation which can be used to obtain linear combinations of the original variates. The transformation matrix may itself be automatically generated, for the analysis of repeated measures designs. A program option allows for the orthonormalization of the transformation matrix. After transformations, the observed means and standard deviations for each subclass are displayed.

The estimation and analysis phases are based entirely on the specification of single-degree-of-freedom planned contrasts. Rather

than placing artificial restrictions on the sums of the group effects, Multivariate provides a solution for the model of deficient rank by having the user determine linear combinations of the group membership effects which are of interest to him. Five common sets of between-group contrasts are available, including orthogonal polynomials. Others include the comparison of all experimental groups to a control, comparing each subgroup to the mean of the subgroups, and Helmert contrasts. In addition, the program will accept arbitrary contrast matrices constructed by the user, for problems for which contrasts other than the five provided are of interest. The designation of the effects is through the use of coded "symbolic contrast vectors" which are described in the following sections.

The estimation phase of the program will estimate the magnitude of the effects and their standard errors. In addition, subclass means and residuals may be estimated, based upon the fitting of a model of user-determined rank. The observed and estimated subclass means may be combined across subclasses as desired. Means may be estimated for null subclasses when this is appropriate. The error sum of squares and cross products are estimated, and are adjusted to yield the variances and correlations of the variates. This estimate of the population sum-of-squares and cross-products may be either the within-group term, the residual sum-of-products after fitting a given model to the data, or special effects which are user-determined. This feature allows for the analysis of any fixed, random, or mixed effects design. Only one of the possible error terms may be employed

in any given run however, so that multiple runs are necessary for testing all effects in a model where more than one error term is needed.

The analysis phase may be repeated any number of times. It allows the user to select subsets of variables and covariates from his original input set and to perform the appropriate analyses. Designating more than one variable as a criterion measure will cause the program to consider them simultaneously and to apply appropriate multivariate test criteria. If some of the variables selected are designated as covariates, the program will perform a regression analysis prior to the analysis of covariance to determine the relationship between them and the dependent measures. The regression coefficients in raw and standardized form and their standard errors are estimated. If between-group contrasts, cell means, and residuals have been estimated, they will be adjusted for covariates and re-estimated. The partial correlations among the dependent measures, the adjusted variances and standard deviations, are calculated and displayed.

Tests of hypotheses concerning relationships between the two sets of variables are provided in three forms. The first of these is a univariate and step-down multiple correlation analysis, to determine the relationship between the independent variables and the individual dependent measures. Second, a stepwise univariate and multivariate multiple regression analysis is performed to determine the effects of the individual independent variables (or sets of independent variables; i.e. predictors may be entered into the

regression equations singly or in groups). In all cases, the order of both sets of variables is determined by the user prior to the computer run. A third regression option is the calculation of the canonical correlations, the corresponding raw and standardized weights, the percent of variation in the dependent measures accounted for by each of the correlations, and finally tests of significance of them. This is the extent of the regression portion of the Multivariate program. The program may be used to perform specific individual analyses. These include the simpler univariate analysis, the estimation of between-group effects, multivariate regression analysis, or just canonical correlation analysis by itself.

If subjects have been grouped in a sampling design, the program will proceed with the appropriate orthogonal or exact non-orthogonal analysis of variance (or covariance, if covariates had been indicated). The contrasts established earlier are grouped for tests of hypotheses according to the user's desires. For each contrast or each factor in the model, the program will perform univariate and/or multivariate tests of significance, and the step-down analysis. This latter feature is of particular value for the analysis of repeated measure designs.

If the user desires, a discriminant analysis may be performed for each contrast or set of contrasts. The variance of the discriminant function and the percentage of between-group variation attributable to it are computed by the program. In addition, the raw and standardized discriminant function weights are calculated,

and the three tests of significance due to Roy, Hotelling, and Bartlett, are carried out.

Finally, if the program is being employed to analyze a non-orthogonal design, the user may wish to reorder the between-group effects for subsequent hypothesis testing. Again the order must be determined by the user on an a priori basis. The program will easily allow for this reordering. An additional feature is of value for the analysis of incomplete designs. It often happens that in a complex design, or even simple designs which are based on survey data, a number of subgroups have no observations. It is therefore necessary when choosing a set of contrasts to be certain that they are estimable. The inestimable terms are frequently interactions and often difficult to locate by inspection. The current version of the Multivariate program includes the identification and location of such terms so that they may be removed from the model by the user. An annotated list of the output available from Multivariate follows the user's manual.

The main program and all of its subroutines are coded in Fortran IV. Double precision is employed wherever accuracy may become a concern. Versions of the program will readily work on most 32K-word computers and larger. Instructions for adapting the program to a new system follow this manual. The programming technique which was used is somewhat unique. All labels, data, data matrices, intermediate, and final results are stored within a single singly-subscripted long vector within the program. Within this vector, all

data are packed. That is, there are no unused core locations between the rows or columns of the matrices of a particular problem-run. In addition, there are no unused locations between matrices. This necessitates that the address of every matrix and of its elements be variable and adjusted to the particular problem. Only the non-zero portions of triangular matrices and half of symmetric matrices are kept in storage. Both are stored in packed form by rows (i.e. $a_{11}, a_{21}, a_{22}, a_{31}, a_{32}, a_{33}, a_{41}, \text{etc.}$). Only the principle elements of diagonal matrices are used, and are stored in vector form (i.e. $a_{11}, a_{22}, \dots, a_{nn}$). Matrix operations on large matrices, such as the orthonormalization of a potentially very large basis, are segmented so that only portions of the matrix reside in core at any one time. Elements corresponding to null subclasses are eliminated whenever possible.

The result of this "controlled storage mode" is that Multivariance has the flexibility to handle a variety of different sized problems. In each case, the amount of core needed is a function of the particular job. With all other parameters minimal (e.g. with 1 dependent variable), the program will accept problems of about 1000 subgroups of subjects, or, of about 100 dependent variables and covariates combined in a problem with very few subgroups (e.g. 1 or 2 groups, or in a regression analysis), with a 32K machine. A typical large problem would be about 100 cells and 20 variables. Multivariance is programmed in sections (not links) so that portions of it may be easily removed from core, allowing more space for the data vector, and thus for larger problems. There are no checks built into the

program for exceeding the available storage memory. Guidelines for determining capacity are provided however, following the user's manual. In addition a list of removable sections and the options they contain is provided.

This version of Multivariate has incorporated within it a set of about 50 checks for errors that may be made in attempting to use the program. The user is referred to an appropriate point in this manual, which describes the source of the error. The program has been tested on a large number of problems. Yet, "bugs" are inevitable. The author would greatly appreciate being notified of any error that is discovered.

APPENDIX J

BASIC VARIABLES BY IBM CARD AND COLUMN

TABLE 20

BASIC VARIABLES BY IBM CARD AND COLUMN
ABS: BW/WN REHAB. TRAINEE STUDY

	Variable	Card	Column	Page ^a	Item ^a
Attitude Content	1. Stereotype	1	46-59	2, 3	1-14
	2. Normative	2	46-59	4, 5	15-28
	3. Personal Moral Eval.	3	46-59	6, 7	29-42
	4. Hypo. Action	4	46-59	8, 9	43-56
	5. Personal Feeling	5	46-59	10, 11	57-70
	6. Personal Ac- tion	6	46-59	12, 13	71-84
	7. Total ^b	1-6	46-59	2-13	1-84
Value	8. Efficacy- Cont.	1-6	27 alter. to 43	D-6, 7	103 alter. to 119
	9. Efficacy- Int.	1-6	28 alter. to 44	D-6, 7	104 alter. to 120
Contact	10. Kind	1-6	16	D-3	92
	11. Amount	1-6	17	D-3	93
	12. Avoidance	1-6	18	D-3	94
	13. Gain	1-6	19	D-4	95
	14. Enjoyment	1-6	20	D-4	96
Change Orien- tation	15. Child Rear- ing	1-6	14	D-2	90
	16. Birth Con- trol	1-6	15	D-2	91
	17. Prejudice- Comp.	1-6	23	D-5	99
Demo- graphic	18. Age	1-6	10	D-1	86
	19. Educ. Amt.	1-6	13	D-2	89
	20. Urbanity	1-6	25	D-5	101
	21. South/North	1-6	26	D-5	102
Cate- gorical Data	22. Sex	1-6	9	D-1	85
	23. Marital Stat.	1-6	11	D-1	87
	24. Religion-Af- filiation	1-6	12	D-2	88
	25. Prejudice- Reduce	1-6	21	D-4	97
	26. Polit.-Affil.	1-6	22	D-4	98
	27. Racial Group	1-6	24	D-5	100

^aOf the 112270 edition of the ABS: BW/WN

^bTotal score not used in analysis.

APPENDIX K

RESULTS OF MULTIPLE CORRELATION ANALYSIS

RESULTS OF MULTIPLE CORRELATION ANALYSIS

Due to the problem of multicollinearity, Hypothesis No. 4, dealing with contact, is difficult to interpret by bivariate correlations.

A proposed solution to overcome this difficulty was to utilize the multiple correlation approach developed by Michigan State University which can deal with related predictor variables. Essentially, the program will add variables to the prediction equation until the significance of the correlation coefficient between the variables exceeds a stopping criterion. The stopping criterion used for this study was .05.

1. Dependent Variable 1, Stereotypic Level:

Independent Variable No. 4 (gain) met the significance criterion.

$$R = .1054$$

$$R^2 = .0111$$

$$\text{Sig.} = .003$$

2. Dependent Variable 2, Normative Level:

A combination of independent variables, No. 5 and No. 3 (enjoyment and avoidance), met the significance criterion.

$$R = .2407$$

$$R^2 = .0579$$

$$\text{Sig.} = .0005$$

3. Dependent Variable 3, Moral Evaluation Level:

A combination of the independent variables, No. 5 and No. 3

(enjoyment and avoidance of contact) met the significance criterion.

$$R = .2744$$

$$R^2 = .0753$$

$$\text{Sig.} = .0005$$

4. Dependent Variable 4, Hypothetical Level:

Independent Variable 5 (enjoyment of contact) met the significance criterion.

$$R = .1634$$

$$R^2 = .0267$$

$$\text{Sig.} = .0005$$

5. Dependent Variable 5, Actual Personal Feeling Level:

A combination of independent variables, 2, 1, 4, and 5 (amount of contact, kind of contact, gain from contact, and enjoyment of contact), met the significance criterion.

$$R = .4121$$

$$R^2 = .1698$$

$$\text{Sig.} = .0005$$

6. Dependent Variable 6, Actual Personal Action Level:

Independent Variable 2 (amount of contact) met the significance criterion.

$$R = .1215$$

$$R^2 = .0148$$

$$\text{Sig.} = .001$$