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EFFECTS OF RACE OF EXPERIMENTER, SELF-CONCEPT AND RACIAL ATTITUDES IN THE PERFORMANCE OF BLACK JUNIOR HIGH SCHOOL STUDENTS

by

Phillip Earl Dukes

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Psychology)
in The University of Michigan
1974

Doctoral Committee:

Professor Elizabeth Douvan, Chairperson
Professor Dorwin Cartwright
Professor Betty Morrison
Professor Harold Stevenson

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I am particularly saddened by the untimely death of my father, for this robbed him of the joy of seeing the results (my completing the doctorate) of one of his wisest teachings (perseverance). This thesis is dedicated to my late father, my mother, brothers and sisters, my wife, Phyllis, and son Deven who have been a constant source of encouragement.

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CHAPTER I

INTRODUCTION

Statement of the Problem

Several studies have pointed out that Black students in every region of our country, and at all grade levels, score significantly below whites on standard measures of scholastic and intellectual achievement (Coleman et al., 1966; Epps, 1969; Jensen, 1969; Katz, 1969; Report of the National Advisory Commission on Civil Disorders, 1968). These researchers have also pointed out that these differences tend to increase with Black students' continual attendance in schools.

The discrepancy between the achievement of Black and white students has resulted in a formidable body of research, and numerous explanatory hypotheses about the problems of Black student's under-achievement. Several studies which have assumed Black students are deficient, both academically and socially, have focused on a variety of presumed cognitive, non-intellectual, motivational and personality "deficits" or "non-achievement syndromes" (Katz, 1969; McClain, 1967; Passow, 1967). These "deficits" are assumed to reflect the cumulative and disastrous consequences of racial discrimination, mediated by dysfunctional socialization and child-rearing practices, although alternate constitutional and genetic hypotheses have occasionally been proposed (Jensen, 1969; Pasamanick and Knoblock, 1963; Shuey, 1966).

Other investigators have concentrated on the discrepancy between the competencies, motivation and values which Blacks develop in order to survive in the culture in which they live, and the skills, abilities and attitudes which are valued and rewarded in middle-class-oriented schools (Friendenberg, 1970; Glazer, 1969; Inkeles, 1966). These predictions have been labelled (Katz, 1969) as the "cultural deprivation" and "cultural conflict" hypotheses respectively. Still others have concentrated on destructive teacher-student relationships (c.f. Kozol, 1968; Mann, 1968; Mann, 1969; Rist, 1970) or environmental and situational determinants such as the overall poor quality of education which is made available to Blacks (c.f. Clark, 1965; Silberman, 1970). These reports, although supportive of the approaches mentioned above are subject to numerous methodological and theoretical problems and contradictory results (c.f. Jencks, 1972). Hence, this research contributes little to our understanding of the discrepancies between white and Black students or the complexities of the interracial teacher-pupil relationship.

With regard to the education of Blacks, the degree of failure is evident in the persistence of separate and unequal educational opportunities for most Black elementary, high school, and college students, in the overall poor quality of the available educational opportunities, and the extent to which Blacks' achievement performance has been stifled and their occupational potential unrealized. It thus seems obvious that the challenge of providing equal educational opportunities would allow youth regardless of ethnic or social economic background, to participate fully as productive members of our increasingly complex and highly technological society. The lack of such opportunity could have disastrous consequences since an individual's contributions

to society depend greatly on his ability to produce the goods and services deemed necessary by a society. Several studies would suggest that there is a greater probability that Blacks would develop these skills or abilities through school desegregation, since educational desegregation appears to have enhanced the achievement performance of Black students (Coleman et al., 1966; U.S. Commission on Civil Rights, 1967), although school desegregation may also negatively affect Black students' achievement performance (Katz, 1964). It is suggested (Katz, 1964) that these effects result from the increased contact between Black students and white teachers, counselors, examiners and peers, inherent in desegregated schools. Gottlieb (1964a, 1964b) and Clark (1965) have claimed that negative racial attitudes, disinterest, and insincerity on the part of white teachers toward Black pupils are important factors in the scholastic failure of Black students. It has also been pointed out (Katz, 1964) that while the performance of Black students is positively affected by social acceptance from white teachers and peers, their performance is negatively affected by rejection from white teachers and peers. Accordingly, the author feels that the development of academic and vocational skills and abilities begins with a sound educational experience which includes the identification of personality and interpersonal (and racial) factors that can affect this development.

Some investigators have focussed attention on the crucial relationship between self-concept and achievement (Jersild, 1952; Reeder, 1955; Stevens, 1956). Employing either grade school or college age students as subjects, these researchers found that positive feelings about the self are associated with improved academic achievement. Subsequently, Paschal (1968) found significant differences between

children with negative and positive self-concepts and reading abilities at the kindergarten level. Given this evidence it is important to note that several personality theorists have assigned self-concept a central place in their personality theories and have suggested that an individual's self-concept is a major factor influencing his behavior (Kinch, 1963; Rogers, 1951; Snygg and Combs, 1949). It is also noteworthy that among the significant others believed to affect an individual's feelings about himself are first his parents and later his teachers. Several studies have presented findings which support this contention (Ausubel, 1954; Jourard and Remy, 1955). Thus, it appears reasonable to assume that for Black students, achievement or lack of achievement may be associated with their level of self-concept. Black students' achievement performance presumably may also be affected by their attitudes toward Blacks and other racial groups.

Racial attitudes are primarily transmitted through the child's parents and peers (Vander Zanden, 1966). The transmission process, however, is not simply a process of learning specific skills of tool using, language and social roles, but implies as well the learning of other cultural behaviors as defined by a particular society (Davis, 1944). In the identification process the child acquires characteristics and values of the parent or peer because he wants to be like the parent (Sears, 1957) or desires acceptance by significant others (Vander Zanden, 1966). This should not suggest, however, that the Black child always develops positive attitudes toward his own racial group. It has been suggested (Proshansky and Newton, 1968) that Black children learn to associate "Negro" with negative connotations such as "dirty", "bad", or "ugly". Consequently, for the Black child, if these judgments are

true they should operate to establish his own racial group as inferior to white people. This assertion may have some validity but it must be tempered with caution since it has been noted (Proshansky and Newton, 1968) that many Blacks do not adjust to or passively accept the labels or generalizations of white society. A report by the Group for the Advancement of Psychiatry (1957), suggests that behind the facade of compliance displayed by Blacks lies fear, anger, and resentment. It is also possible that the recent Black awareness movement typified by slogans such as, "Black is beautiful" and "I am Black and I am proud", taken together with the increased presence of Blacks in the mass media, textbooks, local and national political offices, and the more "militant stand of Blacks" may have produced among Black youth a greater acceptance of their own race and subsequently themselves. Yet, there exists the possibility that this new movement has not sufficiently reached into most Black homes. In this instance, like the previously mentioned study by the Group for the Advancement of Psychiatry (1957) has suggested, the Black person who conforms to the demands of white society and consequently rejects himself pays a high price; compliance results in negative self-conception or identity.

In discussing some of the psychological consequences of a negative self-concept, evaluation or identity, several studies (Grier and Cobb, 1968; Proshansky and Newton, 1968) have identified characteristics associated with these factors (i.e. unrealistic feelings of inferiority, self-denigration, lack of self-confidence), which lead to either a desire to identify with whites, or to antisocial behavior against one's own racial group or the dominant racial group. These characteristics are presumed to also influence aspirations, learning and achievement in Blacks.

Purpose of the Study

This investigation is basically concerned with the nature of the interaction between Black junior high school students and white and Black evaluators. The study, however, also examines the possibility of an interaction of race of examiner, self-concept and racial attitudes on the test performance of Black students. An area of interest that particularly stimulated this study is the racial crisis in contemporary America, especially as it relates to education for minority group students. For the Black student who attends school in the inner city, many of the psychological demands of the school culture are antithetical to survival in segregated slums. The students' contact with white teachers may be frequently too negative and punitive. Conversely, the Black teacher is potentially a model for identification, but similar to his white colleague he too may be highly punitive and chastising. Of course, social class differences between teachers and students are contributing factors. Nevertheless, variations in Black students' feelings toward, perceptions of, and responses to teachers and other personnel are by necessity a vital area for investigation.

Given one-to-one group testing situations, a number of factors may influence the student's behavior. Specifically, for the Black student, his attitudes toward tests and his subsequent test performance may be dictated by the constellation of earlier (and race related) encounters in the school. Therefore, white examiners might experience difficulty in establishing rapport with the students, while the Black examiner may not experience difficulty. The converse, however, is also possible. It thus appears obvious that the relationship between Black students and testers is important because the cognitive search for

solutions to problems frequently demands certain motivational dynamics in the students that may be influenced by the race of the examiner. It is potentially feasible that a negative relationship between Black students and testers can in turn negatively influence test results.

Recently, several reviews (Sattler, 1970; Sattler and Theye, 1967) have presented findings of numerous studies which suggest that not only does the race of examiner influence the test performance of Black students, but that the white examiner generally has a deleterious effect on the test scores of Black subjects. It has been noted, however, (Sattler, 1970; Sattler and Theye, 1967) that there is a paucity of well designed studies to support this notion. Nevertheless, studies have reported that Black subjects score higher in the presence of a Black examiner than Black subjects tested by a white examiner (Abramson, 1969; Forrester and Klaus, 1964). In contrast other studies have reported higher test scores for Black subjects tested by a white tester as opposed to the scores of Black subjects tested by a Black tester (Bucky and Banta, 1972; Katz, Roberts and Robinson, 1965). Still other studies which investigated the race of examiner effect report no differences in the scores of Black subjects on educational and psychological tests when tested by Black or white examiners. Given these inconsistent findings, it has been suggested that other personal characteristics of the tester, such as teacher effectiveness (Gates, Yando and Ziegler, 1971) or racial attitudes (Sattler, 1970; Sattler and Theye, 1967) interacted with race so that white or Black testers either negatively or positively influenced the test scores of Black students. It has also been suggested that the race of examiner may interact with certain personal characteristics of subjects for example, level of self-confidence (Epps, Katz, Perry,

and Runyon, 1971; Katz, Atchison, Epps and Perry, 1970) or racial attitudes (Sattler, 1970; Sattler and Theye, 1967).

Many of the studies designed to investigate the effects of race of examiner in the test performance of Black students have presented numerous inadequacies in design and method such as varying task demands, failure to employ an appropriate number of testers from each race, and inadequate controls for such experimenter and subject characteristics as age, sex, and social status. It is also important that those studies with adequate methodologies and designs which have investigated race of examiner effects have virtually ignored the possibility of an interaction of examiners' race and Black subjects' level of self-concept and racial attitudes in the test performance of Black subjects.

Limitations of the Study

The nature of this study dictates that these data should be interpreted cautiously. Certain generalizations are circumscribed and limited by specified experimental conditions and procedures. One example of this limitation are the four performance measures that were used (i.e. Code, Anagrams, Verbal Recall and Digit Span). These learning and memory tests were selected on the basis of their appropriateness to an eighth grade sample. Therefore, no generalizations for eighth graders on other performance measures will be made.

Another limitation of the study involved the number and sex of experimenters. Because of the difficulty experienced in locating experimenters and the need to also avoid the confounding of sex-race interactions, only five male experimenters from each race were used. Thus,

the findings are not only limited to male experimenters, but the generalizations about the race variable will also be limited.

Finally, this investigation is limited to low income Black eighth grade males attending schools in Cleveland, Ohio. No comparisons are made between this sample and low or middle income Black or white eighth grade students who attend schools in other regions of the country. Generalizations from the results of this study are therefore limited to students in similar low income, predominantly Black urban schools.

CHAPTER II

REVIEW OF THE LITERATURE AND STATEMENT OF HYPOTHESES

Considerable research has been concerned with the factors which influence the academic achievement of Black students. Recent evidence suggests a significant association between Black students' scholastic performance, race of authority figures (teachers, examiners and experimenters) and students' self-concept and racial attitudes.

Race of Examiner

The potentially disruptive impact that whites have on Blacks has been dramatized by numerous writers (c.f. Baldwin, 1960; Ellison, 1947; Wright, 1940) and documented in several clinical and theoretical accounts of the Black experience (Fanon, 1967; Grier and Cobb, 1968; Kardiner and Oversey, 1962; Pettigrew, 1964; Poussaint, 1967). One of the several experimental factors that psychologists have minimized, however, is the influence of the experimenter on the performance of their subjects.

In one of the earliest studies concerned with race of experimenter effects (Katz and Greenbaum, 1963), evidence was presented which suggested that Black subjects' performance was affected by the experimenters' race and their level of anxiety. Subsequently, Robert Rosenthal and his colleagues (1963, 1964, 1966, 1968) investigated such topics

as age, sex, expectancy, anxiety and race of experimenter as factors that affect the subjects' performance. Although these factors have been identified as potentially influential with regard to subjects' performance, and numerous suggestions for minimizing experimenter effects have been formulated (Kintz et al., 1965; Sarason and Minard, 1963; Stevenson and Allen, 1964), very few reserach reports have been concerned with, or explicitly state, relevant characteristics of the experimenter who collects the data.

The race of the experimenter, however, is becoming an increasingly important area of study, especially as it relates to the performance of Black youth in testing situations. In a review of studies on Blacks, Dreger and Miller (1968) found evidence for a differential effect of experimenters' race on Black childrens' performance. Several studies varying in degree of comprehensiveness have been concerned with the influence of the presence of white or Black authority figures on the performance of Blacks (referred to as "racial experimenter effects") in a variety of natural and experimental settings (c.f. Sattler, 1970; Sattler and Theye, 1967). Thus far, the race of experimenter has been investigated in a survey research situation (Hyman, 1954) and as it relates to galvanic skin responses (Bernstein, 1965; Rankin and Campbell, 1955) and psychological tests or task performance (Allen, Dubanoski and Stevenson, 1966; Forrester and Klaus, 1964; Katz, Epps and Axelson, 1964a; Katz, Robinson, Epps and Waly, 1964b; Katz, Roberts and Robinson, 1965; Kennedy and Vega, 1965; Phillips, 1966). Although most of the studies have used Black students as subjects and Black and white males as experimenters, the results have not been unidirectional; subjects' performance was not found to be consistently affected by the experimenters' race.

In a recent review of literature concerned with race of examiner effects, Sattler (1970) has noted:

> "The overall trend in personality, attitude and preference, interviewing and psychotherapy studies indicates that Negro subjects tend to perform more adequately and to be less inhibited with Negro experimenters than with white experimenters, whereas, in task performance and intelligence test studies, no overall trend is evident (p. 156)."

With regard to task performance, it has been noted (Sattler, 1970) that white experimenters tend to impede the performance of Black male elementary school children in a number of cognitive tasks, but not necessarily in the case of Black college students.

Irwin Katz and his colleagues (1964a, 1964b) found that Black male college students perform better with a white examiner on easy performance tasks, while on difficult tasks (presented as intelligence tests) they do better with a Black experimenter. It thus appears caution should be exercised in drawing any definitive conclusions since some of the findings are inconsistent or contradictory and studies in the same area are not necessarily comparable. Unfortunately, many of these studies have also had numerous inadequacies in method and design. For example, varying task demands, inadequate controls for such experimenter and subject characteristics as age, sex, social status, racial attitude and origin of birth, inadequate sample size, and failure to employ an appropriate number of testers from each race have been noted (Sattler, 1970; Sattler and Theye, 1967). These studies also failed to control for such subject characteristics as level of self-confidence. It has been suggested that Black subjects' performance in different racial environments may be a function of their level of self-confidence (Epps, Katz, Perry and Runyon, 1971; Katz, Atchison, Epps and Perry, 1970). Notwithstanding these limitations,

several empirical consistencies can be abstracted cautiously. In the presence of a white experimenter, Black subjects tend to suppress hostility (Katz, Robinson, Epps and Waly, 1964b) to display more test anxiety (Baratz, 1967) to be less responsive to approval (Allen, Dubanoski and Stevenson, 1966; Gahagan, Long and Horai, 1969; Katz, Henchy and Allen, 1968; Kennedy and Vega, 1965) and to become more acquiescent (Hatton, 1967). Black interviewees also seem to manifest a less elaborated style of language when confronted with white interviewers and hence acquiesce by responding in ways which conform to existing social and racial stereotypes (Ledvinka, 1969; Sattler, 1970).

A second limitation of many of the studies concerned with race of tester or examiner effects has been that the subjects were either college students or elementary school age children. It is obvious that by college age, Black students have formed stable opinions of themselves as Blacks and about members of other races, whereas Black elementary and junior high school age students have not. It thus appears that the task performance of eighth grade Black students who are tested in both Black and white situations might question, if not negate, the findings of studies which have employed college-age Black students (i.e. Katz, Atchison, Epps and Perry, 1970; Katz, Robinson, Epps and Waly, 1964b) or Black elementary students (i.e. Allen, Dubanoski and Stevenson, 1966; Kennedy and Vega, 1965). This might promote other modalities of perceiving and reacting to both white and Black authority figures.

It is also possible that white experimenters will induce anxiety in Black junior high school students and thereby impede test performance. There exists the additional interrelated possibility that the

socialization experiences of junior high school suudents have taught them to display behavior which has been labelled as "moving against" and/or "away from" the (white) oppressor (Pettigrew, 1964). This ideology is prevalent in Black communities. Conversely, the Black junior high school age student might still be suffering from a negative self-conception, as reviewed by Proshansky and Newton (1968), which frequently contributes to Black youths' rejection of Black adult models and subsequent identification with white models. Given these possibilities it would appear that a discussion of self-conception is appropriate.

Before this discussion is undertaken, however, the author feels that it is worthwhile to mention some explanations which may account, at least in part, for the potentially deleterious effect of white authority figures on Blacks' behavior. Some hypotheses concentrate on Black intrapsychic processes and the contribution of disruptive affect. Others advocate mutual reinforcement techniques in Black-white interaction, and still others focus on compliance to culturally-based Black and white shared role prescriptions and expectations.

The first explanation, basically derived from the personality deficit perspective, assumes that there are several stable Black response tendencies, affective states or intrapsychic processes which are consistently elicited by the presence of a threatening white. It is argued (Baratz, 1967; Jacques, 1955; Katz, 1968; Kovol, 1970; Ledvinka, 1969; Hartmert, 1969) that for many Blacks, the presence of white evaluative authorities may serve as a source of internal and external ego threat. This may result from several suggested conditions including fear of failure over one's inability to achieve performance expectations held by valued authorities, frustration in the face of thwarted compe-

tence on self-assertive strivings, status envy, or fear of retaliation for anger or rage directed at the externalized source of intense feelings, personal helplessness, powerlessness, unworthiness, or unimportance. Under these circumstances, performance and interpersonal behavior may be disrupted or constricted by competing emotional responses or by defensive splitting, identification and projection. These responses are aimed at eliminating painful internal impulses or object representations and at warding off anxiety in the presence of a feared or ambivalent stimulus person.

Another set of explanations involves a change from the study of Black intrapsychic processes and dynamics to the analysis of reinforcement techniques in the Black-white interaction. Crucial to these analyses are the related concepts of role pressures, demands, expectations, and prescriptions (Ledvinka, 1969; Levinson, 1963; Miller, 1960; Pettigrew, 1965; Rammetveit, 1955; Sarbin and Allen, 1968). Advocates of this perspective argue that the disruptive effects of the presence of whites is reflective of Blacks' responses to external social roles, or shared expectations of behavior rather than (or in addition to) internal states in Blacks. Pettigrew (1965) and Ledvinka (1969) have reportedly documented the nature and content of the mutual expectation governing Black-white interaction. They have been found to vary across settings or geographic regions. For example, expectations are more defined and sanctions are more severe in the Southern regions of the United States and role performance or enactment differs for urban or rural Blacks. Pettigrew (1965) contends that under certain circumstances interracial interaction may conform in varying degrees to the following ritualistic mode:

> "The white must act out the role of the 'superior'; by direct action or subtle cue, he must convey the expectation that he will be treated with deference. For his part, the Negro must, if traditional norms are to be obeyed, act out the role of the 'inferior' and should he refuse to play the game, he would be judged by many whites as 'not knowing his place'; and harsh sanctions could follow" (1965, p. 974).

The persistence of this kind of interpersonal encounter is based on the assumption that both Blacks and whites know and subscribe to the rules of the ritual, that Blacks perceive whites as having higher status and possessing more power than Blacks and subsequently anticipate (and care about receiving) sanctions, hostility or rejection from whites, and on the likelihood that in the presence of whites, a Black person will acquiesce and "know his place" rather than display self-assertive or retaliatory behavior (Ledvinka, 1969; Pettigrew, 1965; Hatton, 1967). To reiterate, one consequence of compliance (Group for the Advancement of Psychiatry, 1957) is that compliance of Blacks to the dictates of white society results in a negative self-conception, which is presumed to influence aspirations, learning and achievement in Blacks. It is also possible that through compliance, Blacks may learn to be skillful at presenting the expected image to whites, while reserving their real feelings for all Black settings (Baldwin, 1955; Group for the Advancement of Psychiatry, 1957; Ledvinka, 1969).

The most direct implication of this kind of explanation for Black intellectual and academic performance results from the expectations that Blacks should not and therefore do not manifest competitive intellectual process. Thus, as Pettigrew (1964) has noted, "to reveal high intelligence is to risk seeming 'uppity' to a white supremacist... After all, an intelligence test is a middle-class white man's instrument; it is a device whites use to prove their capabilities and to get

ahead in the white world. Achieving a high test score does not have the same meaning for a lower-status Negro child, and it may even carry a definite connotation of personal threat. In this sense, scoring low on intelligence measures may for some talented Negro children be a rational response to perceived danger" (p. 115).

Although these dynamics may influence Black strivings, it appears unreasonable to assume, given the increase in Blacks' self-assertion, that individual Blacks remain compliant and complacent in the face of these pressures. It is possible that under highly threatening or provocative conditions, ostensible compliance to the expectations of whites may be based on a rational fear and avoidance of white power. This raises the questions, is this behavior only manifested in the presence of whites?

To answer the question, one has only to consider examples of Blacks who manifest similar behavior in all Black situations. This suggests that for Blacks other factors which are internally influenced may be operating. Accordingly, it has been noted that similar to members of other oppressed groups, Blacks have internalized aspects of the inferior role, resulting in a potentially collusive relationship (Fanon, 1967; Jacque, 1955; Kelman, 1961; Kovel, 1970; Ledvinka, 1969). Given this, it should be noted that there is a greater probability that the role behavior of Blacks will vary with their perception and interpretation of the (Black or white) role sender's intentions, the pressures, standards and the sender's capacity to sanction their behavior (Rammetveit, 1955). Presumably, other intrapsychic processes, needs, defenses, reality judgments, and personal role definitions all contribute to his various behavioral responses (Levinson, 1963; Sarbin and Allen, 1968).

Self-Conception - Evaluation and Esteem

In defining and evolving a conception of "the self", many issues are involved; this task has already been handled adequately by several investigators (Coopersmith, 1967; Diggory, 1966; Gergen, 1971; Hamachek, 1961; McCandless, 1967; Rosenberg, 1965; Wylie, 1961). Thus, in this study, the use of the term self-concept (evaluation and esteem) refers to "the evaluation which the individual makes and customarily maintains with regard to himself; it expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful and worthy" (Coopersmith, 1967, pp. 4-5). Given this definition, it is apparent that self-evaluation plays a vital role in a conceptualization of self. The investigators cited above are in consensus with this contention. McCandless (1967) has suggested that self-conception involves a "set of expectancies, plus evaluations of the areas or behaviors with reference to which these expectancies are held" (p. 55). It has also been noted (Helper, 1958) that there is widespread agreement on the view that self-evaluation attitudes derive directly from evaluations made of the individual by others. It is also profitable to mention that several researchers (Coopersmith, 1967; Gergen, 1971; Jessor and Richardson, 1968) have defined self-esteem as an individual's evaluative attitude toward himself (a personal judgment of one's worthiness). An individual's evaluation of himself is viewed as the esteem with which he regards himself. Gergen (1971) has further suggested that the term self-esteem be used "when speaking of the evaluative component of self-conception" (p. 37).

Although in agreement regarding the importance of self-evaluation in the development of self-concept, the previously cited personality

theorists differ on a number of issues. For example, two of the issues are: (1) Should a conceptualization of self be considered singular or global, as opposed to multi-faceted? (2) Should a conceptualization of self, once evolved be considered fixed or changeable? It is the author's view that individuals have multiple conceptions of themselves and that each component is learned (according to principles of learning) and is therefore capable of being changed.

Several theorists and investigators tend to support this position. For example, Gergen (1971) argues that self-esteem is neither global nor fixed since individuals harbor numerous conceptions of self which are subject to change over time and may vary in importance and between situations. Similarly, Diggory (1966) has pointed out that although global self-evaluations may be made by individuals, this is not usually the case. He suggests that when an individual evaluates himself he evaluates some limited aspect of his activity. Not unlike these theorists, Coopersmith (1967) posited that self-esteem varies across different areas of experience and according to role-defining conditions like sex and age. He also suggested that an individual evaluates his ability to perform in different roles on a continuum which ranges from very worthy to totally unworthy. The appraisal of these abilities is weighted according to their subjective importance to the individual which subsequently enables him to arrive at a general level of self-esteem (Coopersmith, 1967). It has also been suggested (Jessor and Richardson, 1968) that it is the pattern of performance expectations and values that are critical to self-esteem and not the separate components. Jessor and Richardson (1968) also suggest that the level of self-esteem reflects the degree to which success approaches expectations

in personally valued areas and the ability to accept and reject the insults and compliments of others who may either make aspersions, render respect or ignore an individual's pattern of performance.

Hence, it may be inferred that in the four previously cited positions, self-esteem is multi-faceted, weighted across areas in terms of subjective importance, and may potentially vary. In other words, the construct self-esteem consists of a number of relatively independent dimensions. It may also be concluded that self-evaluation as interpreted by these theorists refers to the appraisal by an individual of a specific performance, which relates to a particular component of self-conception, as opposed to a global appraisal of the self. Thus, it is obvious the individual is believed to identify and evaluate himself along many dimensions.

The author is supportive of the notion of self-esteem as multi-dimensional. This does not mean that individuals never arrive at a global evaluation which reflects how they view themselves as satisfying the performance standard to which they subscribe. Quite the contrary, their performance standards may be applicable to the various areas of self-conception. The notion of global self-esteem is seen by the author as reflecting a summation of an individual's evaluative view of self across the various areas of self-conception. Thus, the writer submits that the different components of self-conception, the values attached to the behavior corresponding to the components and the performance standards employed in evaluating that behavior are learned in social interaction and are subject to change.

Supportive of this contention, Sullivan (1947) and Ziller, Hagery, Smith and Long (1969) have noted that self-conception and evalu-

ation arise and develop in an interpersonal or social setting. Thus, it seems obvious that feelings about the self are established early in life and are modified by subsequent experiences and through interaction with significant others. Among the "significant others" believed to affect an individual's feelings about himself are first his parents, his peers and later his teachers. Several previously cited studies (Ausubel, 1954; Jourard and Remy, 1955) have reported evidence which support these notions.

Given the perspective outlined above, it appears reasonable to conclude that one's overall level of self-esteem and the specific esteem corresponding to a particular area of self-conception may fall along a continuum from low to high or from negative to positive. Thus a person's overall or specific level of self-esteem may be characterized as low or high contingent upon the existence of a discrepancy between his level of performance and his self-imposed standard of excellence. The discrepancy is usually weighted by the importance an individual attaches to being competent in that particular area of performance. It is suggested that high self-esteem results from attaining or exceeding performance standards in valued areas, while failure to attain the desired performance standard results in low self-esteem.

Since the concept of self was introduced into the school setting (Jersild, 1952; Reeder, 1955; Stevens, 1956), not only has it received acceptance by both educators and social scientists, it has also generated a considerable amount of research (c.f. Nobles, 1973). One of the most provocative findings of this research, however, is that a positive self-concept and self-evaluation is an important prerequisite for academic achievement; and Black students are presumed by many to have

strong negative self-concepts (Deutsch, 1960; Epps, 1969; Getzels, 1969; Lavin, 1965; Pettigrew, 1964; Proshansky and Newton, 1968; Shaw, 1967). This assumption persists despite numerous definitional, methodological and theoretical inconsistencies (see Nobles, 1973). If this assumption is true, however, then this development of a positive self-conception among Black students should be a principle concern of both parents and teachers. Competent academic performance is a value widely held and revered in our society, hence, the attainment of both a financially and psychologically rewarding occupation is contingent upon successful scholastic performance.

There is also considerable consensus among numerous studies which have investigated the effects of overall low self-esteem on behavior. There is also considerable consensus among the numerous studies (i.e. Epps, 1969; Erikson, 1967, 1968; Grier and Cobb, 1968; Group for the Advancement of Psychiatry, 1957; Kardiner and Oversey, 1962; Passow, 1967; Poussaint and Atkinson, 1968; Proshansky and Newton, 1968) on the characteristics associated with a negative self-concept (evaluation) or a low self-esteem among Blacks. These characteristics are: unrealistic feelings of inferiority, self-denigration, or unworthiness; lack of self-confidence; a sense of humiliation, and of cultural alienation and estrangement; constriction of potentialities for self-development; and feelings of self-hatred which lead to either a desire to identify with whites, or to antisocial behavior against one's own racial group or the dominant racial group. As previously stated, any one of these is presumed to influence or be related to aspirations, identity formation, learning and achievement in Blacks.

Although it is beyond the scope of this study, it is apparent that a discussion of the potential effect of each of the previously mentioned characteristics on the behavior of Blacks would be desirable. In the following section, however, pursuant to the outcome of the latter characteristics (feelings of self-hatred), the racial attitudes of Blacks will be discussed. Presently, however, it seems profitable to discuss some of the theoretical explanations of Blacks' negative self-conceptions and self-evaluations.

Several researchers (Epps, 1969; Poussaint and Atkinson, 1968) who have either focused on the self-confirming aspects of interpersonal relationships or the Black family's central role in transmitting the values and attitudes of and toward society (Pettigrew, 1964, Rainwater, 1966), have argued, that the Black youth's negative self-concept arises in social interaction with devaluing whites, or family members and peers, who also have been socialized to believe that they are inferior. Representatives of a more psychoanalytic approach (c.f. Clark, 1965; Comer, 1969; Fanon, 1967; Grier and Cobb, 1968; Kardiner and Oversey, 1962) attribute negative self-conceptions among Blacks to rage turned against the self in the face of evaluative threat and a sense of powerlessness. Another explanation, and perhaps the most provocative (which is designed to account for Black youth's low self-evaluations and the mediating mechanism between self-evaluation and achievement) has been offered by Katz (1967, 1968). He has argued that Black students have internalized excessively high, rigid and stringent standards of performance and self-evaluation. According to Katz (1967, 1968) this enhances anticipated failure, harsh judgment by adults and consequently disruptive anxiety. Thus, excessively high standards for self-evaluation

are dysfunctional for achievement when the motivation to self-impose failure and a high level of disruptive anxiety intervene. Katz (1967, 1968) has also argued that self-imposed blame may serve as anxiety-reducing or cathartic function, by helping the child cope with anticipatory anxiety and hostile impulses.

Given these explanations, the empirical literature does not provide any rationale for choosing one theoretical approach or set of assumptions over another. For example, several researchers (Brookover, Thomas and Patterson, 1964; Epps, 1969; Green and Farquhar, 1965; Wattenburg and Clifford, 1962) have reported significant correlations between Black students' self-concept and performance. The strength of these relationships, however, seem to vary with the sex of the student and the geographical region. The relationship between self-concept and performance has been found to be stronger for females than males (Brookover, Thomas and Patterson, 1964; Wattenburg and Clifford, 1962) and for southern as opposed to northern students (Epps, 1969; Green and Farquhar, 1965). Contrastingly, while self-concept has been found to correlate highly with the performance of white students, the strength of the relationships was reported to decrease considerably for Black students. Several factors (i.e. ambiguous or different definitions of the concept, inconsistent results with different instruments and samples, failure to control for the social class and sex of the subjects, varying findings resulting from the use of tasks with different performance criteria) preclude any definitive conclusions or generalizations (c.f. Epps, 1969; Hodgkins and Stekinas, 1969; Lavin, 1965; Proshansky and Newton, 1968; Schmuck and Juszki, 1969). The results of a few better controlled (grade, race, sex, social class)

studies (Caplin, 1968; Carpenter and Bussi, 1969; Hodgkins and Stekinas, 1969; Schmuck and Luszki, 1969), however, may allow definitive conclusions to be made. Among numerous findings, no significant differences between Black and white students in self-conception (evaluation and esteem), self-assurance, self-adjustment, and a substantial and crucial relationship between positive self-concept, high level of aspiration and achievement for both Black and white students were noted. Of all the characteristics cited elsewhere in this study which are presumed to be associated with Black students, the conceptualizations of self and the effects on their performance; the most provocative is their racial attitudes. Hence, a discussion of this variable appears to be appropriate.

Racial Attitudes, In Group-Out Group Identification, Out-Group-In Group and Self-Orientation

Development of Racial Attitudes

Learning that one is white or Black is part of the process of acquiring one's self-identity. For the child, learning his racial role is similar to the manner in which he learns other roles. Symbols and expectations appropriate to a child's racial role are acquired, and in the process he achieves the answer to the question "Who am I?" In answering this question, the child needs to also answer its corollary; "And who are those others?" The answers to these questions are contained in the culture and are transmitted through the child's parents and peers (Vander Zanden, 1966).

Given the role that parents and peers play in the transmission of racial attitudes, the most widely accepted view contends that a child's

racial attitudes evolve primarily from his parents. Several studies have reported results which support this contention (Allport, 1954; Harris, Gough and Martin, 1950). Yet the results of other studies (i.e. Daimant, 1969) which have investigated the effects of parental attitudes in children are not completely consistent. Daimant (1969), using a Black and white doll test to measure racial attitudes in children, found no difference between children of racially prejudiced and non-prejudiced parents.

Allport (1954) has suggested that the development of ethnocentric learning occurs in three stages. Pregeneralized learning is the first step in which the child does not yet generalize about different ethnic groups in a manner similar to that of adults. In this stage, the child begins to use "linguistic tags", words and phrases that correspond to the attractions and generalizations of adults. The child learns and uses these tags before he is able to apply them correctly. In the second step, the child reaches a stage of total rejection of the entire group defined as being different and is unable to see the group as possessing any favorable qualities. The child reaches the third step, differential rejection, when his prejudice is less finalized. This stage, according to Allport, is not reached until adolescence. With some degree of variation other researchers (Goodman, 1964; Radke-Yarrow, Trager and Davis, 1949; Vaughn, 1964) would also suggest a stage development process for the acquisition of children's racial attitudes.

Goodman (1964) believed that there were three overlapping stages of development: ethnic awareness, ethnic orientation (the beginning of evaluative feelings about a group) and the development of ethnic attitudes. Vaughn (1964) suggested that children are first able to

identify their own race, then discriminate between their own race and others, and finally to obtain a concept of race which includes an evaluative aspect. It has also been suggested (Radke-Yarrow, Trager, and Davis, 1949) that a child first perceives racial group differences, places himself into his respective racial group, and then attaches an affective and competitive meaning to this membership. After this stage, the child moves into racial prejudice.

In agreement with a stage development process for the acquisition of children's racial attitudes, the writer feels that the following sequence although not unanimously agreed upon, has heuristic value. A child first becomes aware of racial differences based on physical characteristics, then realizes that he is a member of one of these groups, and places a positive or negative value upon his membership. It is noteworthy that this or other proposed developmental sequences, are not in and of themselves an end, but rather the means to an end, (the acquisition of positive or negative racial attitudes). It has been noted (Clark, 1965) that a child "cannot learn what racial group he belongs to without being involved in the larger pattern of emotions, conflicts, and desires which are part of his growing knowledge of what society thinks about his race (p. 23).

This suggests that it is through interpersonal experience that the Black child may gradually absorb the cultural norms, values and judgments made about his race. In agreement with this view, a previously cited study (Proshansky and Newton, 1968) has suggested that Black children learn to associate "Negro" with negative connotations such as "dirty", "bad", and "ugly"; and consequently begin to perceive Blacks as inferior to whites. It is worthwhile to note although this assertion may have some validity, it must be tempered with caution.

Proshansky and Newton (1968) in a contradictory manner, have also noted that many Blacks do not passively accept the labels or generalizations of white society.

Given this, it is apparent that Proshansky and Newton (1968) have reached divergent conclusions regarding the extent to which Blacks identify with their own racial group or acquiesce to the racial generalizations of white society. Similarly, several studies attempting to find correlations between patterns of in-group-out-group identification and out-group, in-group orientation among Blacks have produced divergent, often contradictory results (c.f. Nobles, 1973). Nevertheless, the findings of these studies may aid in furthering the understanding of the effect of Black students' racial attitudes on their behavior and subsequent performance. These studies may be viewed and therefore classified as falling into one of the following three categories: (1) those that show positive relationships between in-group identification and out-group orientation; (2) those showing a negative relationship between in-group identification and out-group orientation; (3) those showing no consistent relationship between in-group identification and out-group orientation.

Relationship Between In-group and Out-group Rejection

Several studies (Derbyshire and Brody, 1964; Noel, 1964) have presented findings which support Allport's (1954) theory of "generalized prejudice" which presumably is found among insecure personalities who tend to be unaccepting of themselves and others. The findings of these studies are also supportive of Pettigrew's (1964) argument that, "For Negroes of all ages...moving against the 'oppressor' is positively related to moving against oneself (p. 36)."

Derbyshire and Brody (1964), using a modified E scale found that Black college students who expressed the most negative ("anti-Negro") feelings about Blacks were generally more ethnocentric and demonstrated a high degree of acquiescence to nationalistic American ideology and antisemitic sentiments. Noel (1964) using scales which measure negative attitudes toward minorities and the dominant group ("generalized prejedice scales") found that Blacks who were most rejecting of their own racial group were disparaging of other groups. Noel also found that the attitudes of Blacks were highly related to authoritarianism. The findings of this study are at variance with the conceptualization of "authoritarian personality", as posited by Adorno et al. (1950), who found authoritarianism and ethnocentrism (i.e. glorification of the in-group and rejection of out-groups) to be correlated. This discrepancy, however, may only reflect the fact that members of ethnic and cultural minorities were not included as subjects in the study by Adorno and his colleagues (1950).

Relationship Between In-group Rejection and Rejection of the Self

Considerable research suggests that among Blacks, rejection of their own racial group (in-group) will be related to rejection of the self. Typically, research in what Nobles (1973) calls "the Negro self-hate area" developed as an attempt to duplicate earlier studies which were concerned with Jewish minorities. For example, Sarnoff (1951) reviewed and discussed the potential relationships between Anna Freud's (1946) theory of identification with the aggressor and Jewish antisemitism. Maliver (1970) felt that the position of Blacks was similar to the position of Jewish peoples in the United States.

He investigated whether the notion of identification with the aggressor which was adopted from Sarnoff's (1951) study was applicable to the hypothesized similar phenomenon of "anti-Negro bias among Blacks".

Most of these studies are predicated on the assumption that Blacks who feel disdain or hatred for their own racial group to some degree feel disdain or hatred for themselves. Supportive of this notion, Derbyshire and Brody (1964) argue that their results are interpretable within the framework of the "identification with the aggressor" hypothesis. They concluded that the Black college student who agreed with the "anti-Negro" statement on their modified E scale had developed a "different, ambiguous, and impersonal identity", which consequently made them less secure in their Black identity. Given this it is important to note that in the previously mentioned study by Maliver (1970), whose major concern was "anti-Negro bias among Blacks", Maliver was forced to reject all his major hypotheses and hence posited that the conclusions adopted from Sarnoff's (1951) study of Jewish antisemitism were not applicable to Blacks. Although he failed to find the broad personality differences among the high and low "in-group identifiers" noted by Sarnoff (1951), in summing, Maliver suggested that a high degree of acceptance of "anti-Negro" statements was associated with a negative view of one's father and a generalized fear of rejection by adult figures. Thus, even though his conclusions and interpretations are midleading, some aspects of his findings and assumptions, especially the latter, seem to be potentially useful since they aid in furthering the understanding of the relations between patterns of in-group identification and reactions to parents, as the initial representatives of the cultural sub-group.

Negative and Inconsistent Relationships Between Patterns of In-Group Out-Group Identification

Clinard and Noel (1958), assumed that students who attend all Black colleges have higher levels of in-group identification (since they are presumed to have had stronger in-group indoctrinations through Black history classes and participation in Black organizations). According to these authors, their finding that Black students from all Black colleges have more difficulty in adjusting to integrated social situations is evidence of a negative relationship between in-group identification and out-group orientation. These findings are partially consistent with the results of a study by Hill (1946) who found when comparing high school students from all-Black communities with Black students from integrated communities, that students from all-Black communities display both a slight avoidance tendency toward whites and a greater "race pride". Considering this, it should be mentioned that Hill, laboring under an assumption similar to the assumption made by Clinard and Noel (1958), failed to find any significant relationship between in-and out-group orientations; she found no significant difference in students' overall attitudes toward whites.

Given both studies (Clinard and Noel, 1958; Hill, 1946), it is apparent that they were based on questionable assumptions and that their results and subsequent interpretations are thus questionable. It is plausible that the racial composition of the students' immediate environments was either entirely irrelevant or only one of many factors which determine degree of in-group identification. Nevertheless, Hill's finding of a greater feeling of "race pride" and solidarity among Blacks who reside in all-Black communities is in keeping with the

theories of several theoreticians (i.e. Lewin, 1948; Rose, 1949; Rothman, 1965) and researchers (Johnson, 1966; Maliver, 1965; Noel, 1964), who note a relationship between strong in-group ties and development of positive group-self-attitudes.

To review the present line of reasoning, it appears obvious that not only is the performance of Black students affected by the race of the tester, racial attitude and self-concept, but there is a potential relationship between group identification, group belongingness and self-concept. Thus, one is faced with two crucial questions concerning the task performance of Black students: (1) will the students perform in a different manner for Black or white examiner on intelligence or learning and problem-solving tasks; and (2) will the task performance of Black students be critically affected by their attitudes and level of self-concept. If learning or achievement can be influenced by self-concept and racial attitudes, it would appear reasonable to assume that when working under Black or white testers, Black students' task performance should be positively or negatively influenced by their level of self-concept and racial attitudes toward whites or other Blacks. These assumptions have generated the following working hypotheses.

Hypotheses

I. The performance of Black junior high students will generally be better when tested by Black experimenters than when tested by white experimenters.

II. Students who are high in self-esteem, as opposed to those who are low in self-esteem will perform better with Black experimenters. Conversely, students who are low in self-esteem should perform better with white experimenters than Black experimenters.

III. The scores of students with positive racial attitudes toward Blacks will be higher when working under Black experimenters. For students with positive racial attitudes toward whites, this tendency should reverse.

IV. There will be an interaction among race of experimenter, racial attitude, and self-esteem such that the effects predicted by Hypothesis III will be modified by students' level of self-esteem.

Hypotheses two and three predict two of three possible two-way interactions. It is noticeable that no prediction was formulated for the third two-way interaction (racial attitude X level of self-concept). Hence, the formal analysis will be primarily concerned with testing the interactions for which predictions were made. However, the analysis will also explore the plausibility of the third interaction.

CHAPTER III

RESEARCH DESIGN AND METHOD

Subjects

Black male eighth-grade students between the ages of 13-15 (mean age 13.7 years) attending classes in three junior high schools, which were located in Cleveland, Ohio's inner city, constituted the population from which a sample was drawn for this study. Since factors such as physical and behavioral deficiencies can influence performance, only students with no observable physical or behavior defects were considered eligible to participate. A total of 144 subjects comprise the sample; 72 subjects per experimental condition. Each experimental condition contained high and low self-esteem subjects who had either positive racial attitudes toward whites or positive racial attitudes toward Blacks, randomly assigned independently in order to have an equal number of subjects across each of the above measures.

Many junior high schools employ tracking or similar systems in assigning students to classes according to their ability or achievement. This may result in some classes consisting of high or low achievers. Therefore, to avoid bias in the sample, all eighth-grade males (N = 350) present in school at the time of administration, were administered in groups of approximately 50, both the racial attitude and self-esteem scales. Based upon their scale scores, students were

first divided into high and low self-esteem by median split. The sample was then subdivided into two groups, one with positive racial attitudes toward whites the other with positive racial attitudes toward Blacks. The students were then placed into one of several categories (i.e. high or low SE, positive racial attitudes toward whites or Blacks; high or low SE, positive racial attitudes toward both Blacks and whites or negative racial attitudes toward both Blacks and whites). Only students who were high or low in self-esteem and who had positive racial attitudes toward either Blacks or whites were retained as potential subjects; the other students were eliminated.

Prior to the experiment, subjects' social class status was assessed with the Index of Socioeconomic Status, which was formulated and developed by the Institute for Developmental Studies (Deutsch, Maliver, Braum and Cherry, 1964). Use of the index represents an attempt to objectively estimate socioeconomic status. Like other indexes of social class status, the index uses two factors in classifying social class status: the prestige rating of the main family wage earner's occupation and his or her educational level. In this index, the individual's occupational status is rated from 1 (lowest status) to 10 (highest status). The educational level can be rated from 1 (0-4 years of school) to 8 (graduate training). By adding the separate occupation and education scores, the social class score is obtained. Given these scoring procedures, three social economic levels are derived: SES I, II, and III; low, middle, and upper class, respectively. The major concern for this study; level I should characterize households where the main wage earners' educational level ranges from elementary school to ninth grade and who is either unemployed or holds an unskilled or semiskilled job.

Socioeconomic status (SES) information was obtained by giving a short questionnaire to prospective subjects. This information was collected before any student was selected to participate in the study.

Experimental Design

The independent variables in this study are race of examiner, racial attitudes and self-esteem. Figure I presents the design of the experiment and the relationship between the independent and dependent variables.

Experimenters

Ten male experimenters (five Black and five white) were used in this study. The experimenters were college students attending school in the Cleveland area, selected on the basis of their interest in children and desire to participate in an educationally relevant study. Biosocial attributes of a tester (Rosenthal, 1966) are influencing factors, thus, efforts to control some of these factors were employed. For instance, experimenters were from the same age range (21-27), requested to dress similarly (suit and tie), and received practice in administering all instruments. To avoid covert or unintentional contamination, experimenters were not informed of the exact nature of the study.

Race Main Effect (A)

A_1 Black

A_2 White

Racial Attitude Main Effect (B)

B_1 Positive Toward Blacks

B_2 Positive Toward Whites

	A_1	A_2
	B_1 B_2	B_1 B_2
C_1 Low Self-esteem Main effect (C)	A_1 $B_{1,2}$ C_1	A_2 $B_{1,2}$ C_1
C_2 High	A_1 $B_{1,2}$ C_2	A_2 $B_{1,2}$ C_2

FIGURE 1 - Experimental Paradigm of Independent and Dependent Variables

Independent Variable Measure: Self-Esteem, Racial Attitudes

Self-Esteem

A Guttman (unidimensional) scale, developed by Rosenberg (1965, 1963, 1962) was used to measure self-concept or esteem. This scale measures attitudes toward the self along a favorable-to-unfavorable continuum and was originally constructed for use with high school students. The scale consists of ten items of the Likert type, and are on a four point scale: strongly agree, agree, disagree, and strongly disagree. In order to reduce response set, Rosenberg (1965) alternately presented negatively and positively phrased items. It is realized that the Guttman format for scales has received strong criticism from Nunnally (1967, pp. 61-66), who has argued that the limited number of items and contrived rectangular distribution of items inherent in Guttman scales are artificial and likely to produce only ordinal distinctions among people. It is also realized that the empirical advantage of employing a Guttman scale to measure self-conception has not

been demonstrated. However, it appears that Rosenberg's (1965) scale is the most widely used scale for measuring the self-esteem of high school age students. In addition this scale's use by Rosenberg indicates that the scale is accurate in measuring self-esteem. Thus, on the basis of wide use, appropriateness for high school age sample, and the advantage of comparing the data evolving from this study to previous work, the Rosenberg (1965) self-esteem scale was chosen for use in this investigation.

With regard to reliability, Rosenberg (1965) has reported a Guttman scale reproducibility of 92 percent and a scalability of 72 percent for his sample of 5,024 high school juniors and seniors. A test-retest reliability correlation of .85 has been reported for a group of college students (N = 28) who were retested after two weeks (Silber and Tippett, 1965). In terms of validity, the scale was found (Silber and Tippett, 1965) to correlate from .56 to .83 with similar measures and clinical assessment. It should also be noted that there is some indication from Rosenberg (1965) that the scale predictability differentiates high and low self-esteem individuals in terms of social and interpersonal attributes. According to Rosenberg, positive or high self-esteem is related to less shyness and depression, and both increased assertiveness and extra-curricular activities. This suggests that the scale also has construct validity.

Racial Attitudes

In order to assess racial attitudes, two equivalent short (17 item) forms (X and Y, respectively for whites and Blacks) of Grice's (1934) generalized scale for measuring attitudes toward races and nationalities were employed. Both forms (X and Y) have a correlation

coefficient of -.63 with the strength of determination at .39. The main sample reported by Grice (1934) consisted of a total of 120 high school and college students, 63 of whom were Black. It is realized that while there exist several scales for measuring the attitudes of whites and other ethnic groups toward Blacks (see Shaw and Wright, 1967), there is a paucity of scales which measure the attitudes of Blacks toward either Blacks or other racial groups. It should also be noted that since no recent work has used this scale, there is no repository of information for potential users. However, since the Grice scale (1934) measures attitudes toward defined groups, it would appear that this scale has a great deal of applicability in this study. The instrument is a Thurstone-type attitude scale and has 46 items in each of two equivalent forms (A and B) with scale values ranging from 0.4 to 10.9 (on form A) and from 0.4 to 10.5 (on form B). In using the scale the respondent is asked to check each item with which he agrees. His score is the median of the scale values of all the items endorsed by him as "agree". A high scale value indicates a favorable attitude, whereas a low scale value measures an unfavorable attitude toward the race or nationality in question. The means or indifference points for both scales are 5.65 (form A) and 5.45 (form B) or 6 for both scales, if the scale values may be perceived as ranging from 1 to 11 (Albright, Krisch, Lowshe and Remmers, 1956; Remmers and Wood, 1947). It is worthwhile to mention that Shaw and Wright (1967) have pointed out that scales similar to the ones used by Grice (1934), which were developed before World War II are likely to have dated content and should be updated, or otherwise their usefulness is restricted.

Consequently, when developing the 17 item short form scale which was used in this investigation, the author felt that it was necessary

to select from both forms of the Grice (1934) scale those items that appeared to be most simply worded and to rephrase some of them in order to reduce the reading difficulty and make the scale easier for the group it was intended to measure. The scale values of this short form instrument are primarily the same as those of their equivalent statements on the 46 item scale (Grice, 1934), except in instances where there were ties between the scale values of statements selected from the two forms. In such cases the scale values were either slightly increased or decreased. Thus, it appears that the short form scale should have face validity. Unlike the scale values of Grice's (1934) scale, however, the scale values of the short form range from 0.8 to 10.9, with a mean or indifference point of 5.85. In addition, positively and negatively worded statements are presented alternately within and between forms X and Y in order to reduce the danger of response set.

With regard to reliability and validity, Grice (1934) has reported that both forms (A and B) have a reliability coefficient of .84 with a standard error (S.E.) of .013, when used to measure attitudes toward Blacks. The scale was also reported to correlate from .57 to .67 with the Thurstone scale of attitudes toward Blacks and Chinese, respectively (when applied to these groups). It is noteworthy that Grice (1934) has not reported construct validity for the scale. Nevertheless, longitudinal data resulting from the use of this scale (see Albright, 1956; Kasheiva and Smith, 1943; Remmers, 1946, 1947) appear to suggest that the scale has predictive validity.

Dependent Variable Measure: Code Test, Anagrams, Digit Span, Verbal Memory

Presumably adequate performance on any task depends upon learning ability and also requires that individuals who perform the task be attentive to the tester's instructions. Nevertheless, the tasks selected for use in the study were classified as either attentive or non-attentive learning or problem solving tasks. Non-attentive is used here when making reference to tasks that may be performed by subjects' following the experimenters initial verbal presentation of instructions; attentive is used in reference to tasks that cannot be performed without the experimenter continuously giving verbal instructions while the tasks are being performed.

The tasks used in this study with the exception of the code test, were selected primarily on the basis of their being suitable for group presentation, and their appropriateness for a junior high school age sample; although two tasks were adaptations of tasks usually employed in studies of children's learning and problem solving. The code task, in addition to the aforementioned selection criteria, was also selected for comparative reasons. Either the WISC (Wechsler, 1949) Code B Test for children, (ages 8-15) or the WAIS (Wechsler, 1955) Digit Symbol Code Test for Adults has been used to assess the task performance of Blacks in studies concerned with race of tester effects. The use of the WISC Code B Tests will allow the data evolving from this study to be compared to that of previous research. These tests which have been defined as attentive and non attentive tests were also used since adequate performance on the tests required different amounts of interaction between subjects and experimenters. It was the author's feeling

that the nature of the tests (attentiveness, non-attentiveness) would interact differently with the independent variables of this study. Thus, the data evolving from the use of these performance measures would aid in furthering the understanding of the effects of the independent variables in this study (i.e. race of experimenter, students' level of self-concept and racial attitudes).

Non-Attentive Tasks

There were two non-attentive tasks employed in this study. An anagram verbal problem-solving task and a code numerical learning task were used. The anagrams task requires subjects to reorganize verbal material and is assumed to represent a complex form of verbal problem-solving. Therefore, it would appear to be valuable as a problem for studying the effects of race of experimenter on the linguistic facility of Black 8th grade males.

Reliability and validity coefficients have not been reported for this task, however, several studies (Elbert, Horn, and Schneider, 1965; Stevenson, Hale, Klein, and Miller, 1968) dealing with performance on anagrams have been reported. The task consisted of creating as many words as possible in eight minutes from the letters contained in the word crystallization.

The code task is a sub-test of the Wechsler Intelligence Scale for Children (WISC). The WISC was devised by Wechsler (1949) and adapted specifically for the measurement and appraisal of children's intelligence. However, Wechsler (1949) has pointed out that the code test by itself measures performance and not intelligence. Ten of twelve original tests, divided into two subgroups, five verbal tests and five performance tests, compose the WISC; two tests were omitted on the

basis of their relatively low correlation with the other tests of the scale. The code task was one of the six original performance tests and has also been included in the five remaining performance tests. It has been noted (Wechsler, 1949) that the code test was only retained because it correlated slightly higher with the other scale tests than the maze test, which was omitted and is often administered in place of the code test. It is important to note that it is for this reason that the code test is considered a sub-test of the large scale. The code test is a timed test (T = 120 seconds) and is scored according to the total number of correct answers. This test consists of 100 (4 rows of 25) boxes, seven of which are practice examples, arranged horizontally and divided into equal halves; only 93 of the boxes comprise the code test. In the upper half of each box is one of several numbers which range from 1-9 and are alternately positioned. The bottom half is left empty. However, in performing the task, the respondent places designated symbols in these boxes which correspond to the number located immediately above. It is also noteworthy that the code test taps three aspects of performance: (1) memory; (2) ability to learn; and (3) ability to concentrate.

With regard to reliability and validity, Wechsler (1949) has not reported any information concerning the validity of the code test. However, reliability coefficients of the individual test were computed (Wechsler, 1949) for ages 7-1/2, 10-1/2, and 13-1/2. These age groups were selected for presentation since they were considered most representative of the age range for which the Wechsler Intelligence Scale for Children was designed. Using the split-half technique to compute the reliability of the code test, a coefficient of .60 and an S.E. of

1.90 was obtained for subjects who were 7-1/2 years old. However, there were no reliability coefficients reported for subjects 10-1/2 and 13-1/2 years old. Given these data, it appears important to note, though a reliability coefficient was obtained for subjects age 7-1/2 Wechsler (1949) has pointed out that the split-half technique could not legitimately be used for estimating the reliability of the coding test, which is essentially a speed test. The reliability coefficient reported for the code test was made possible because many of the subjects, age 7-1/2, were given two equivalent code tests (A-ages 5-7 and B-ages 8-15) and is therefore based on an alternate test situation (Wechsler, 1949). It thus appears that caution should be exercised when making judgments based on data evolving from use of the code test; code may not be an adequate measure of students' performance. However, given the wide use of the code test in research investigating race of tester effects on the task performance of Black students, the concern of the present investigation it would appear that the code test is applicable.

Attentive Tasks

Two learning tasks (one verbal and one numerical) were classified as attentive since appropriate performance on both tests require that subjects and experimenters interact with each other. On both tests, experimenters continuously give verbal instructions while the subjects are performing the tests. One of the tasks, digit span, like the code test is a numerical task and also one of ten tests that compose the WISC (Wechsler Intelligence Scale for Children) developed by Wechsler (1949). In addition, this test is one of five tests classified by Wechsler as verbal tests, even though it taps the same three aspects

of performance as the code test (i.e. memory, ability to learn, ability to concentrate) which Wechsler (1949) classified as a performance test.

There are two forms of the Digit Span test, digit forward and digit backward. The Digit Span task used in the study is a modified version of the Digit Forward test (see Appendix H). The test consists of two trials of seven series of digits, which range in number from three to nine digits per series. The series are arranged horizontally from the lowest to the highest series of digits. In performing the task, the subjects attempt to write, without error, as many series as possible.

The second task included under the heading of attentive tasks, involved intentional memory (verbal recall or verbal memory). In this verbal memory task, a short story is read to subjects after they are informed that the experimenter is going to ask a series of questions about the story. It should be noted that to the author's knowledge, only one study dealing with a junior high school age (7th graders) students' performance on a verbal memory task has been reported (Stevenson, Hale, Klein and Miller, 1968). It is also important to note that reliability and validity coefficients have not been reported for this task.

Procedures in Test Administration

Three days prior to the experiment, the self-esteem and racial attitude scales were administered to the entire eighth-grade male population (N = 350) at three Black inner city junior high schools in Cleveland, Ohio.

Scores on the modified version of Grice's (1934) scale can range from 0.8 to 10.9, with a mean or indifference point of 5.9. Only those scores above the mean were considered. Scores above 5.9 are scored as positive and therefore were indicative of whether a subject had positive racial attitudes toward whites or Blacks. Only students who either had positive racial attitudes toward one group or the other were selected to participate in the study; all others were eliminated, leaving a total of 144 potential subjects. On the basis of the scale scores, subjects were first divided into high and low self-esteem groups by a median split. The sample was then sub-divided into two groups; subjects with positive attitudes toward whites and subjects with positive attitudes toward Blacks.

The subjects (N = 144) were then divided into four groups (i.e. positive attitudes toward Blacks, low and high self-esteem, positive attitudes toward whites, low and high self-esteem) of equal size (N = 36) and randomly assigned to one of two treatment conditions (i.e. Black or white experimenters) to assure that equivalent numbers (N =72 each) of subjects were exposed to both conditions. Techniques of random assignment, outlined by Kerlinger (1966) were employed in this study to assign subjects to experimenter conditions.

During the regular school day, subjects (36 students in each of two groups) were asked by their school principal to report to one of two designated testing rooms (located in the school) where they were comfortably seated. Subjects were then greeted by either Black (N = 5) or white (N = 5) examiners, who introduced themselves to the students by name (surname only). To begin the session, subjects were given the following oral instructions:

> "We are from the Phillips Research Institute. Today, we want you to work on tests as part of a research project. We want to find out how well you work on tests that measure such things as memory, ability to learn and ability to concentrate. Your teachers will not be told anything about what you are doing. These tests have nothing to do with your class grades or how smart you are as students, still, you should try to do the best you can."

Subjects were then given task booklets and informed that they contained two tasks as well as the answer sheets for two other tasks. The task booklets contained a face sheet, two task answer sheets and three tasks, two of which were similar, although only one of the two tasks was used in this study. Two code tasks were included in the task booklet. The purpose of the second code task or, if preferred, the third task, which was positioned at the end of the task booklet, was to conceal from the subjects that there were only four task measures. A similar procedure employed by Katz, Roberts and Robinson (1965) in a study where three digit substitution trials were given, was found to prevent an end-spurt on trial three of their digit substitution administration.

Anagrams

This task consisted of constructing as many words as possible in eight minutes from the letters contained in the word crystallization. The experimenter positioned in the front center of the room said:

> "Now we are going to do something called anagrams. Some of you may have done this before, but, if you haven't let us tell you about it. We are going to show you a word, and you are to make as many new words as you can with the letters that appear in the word that we will show you. You don't have to use all the letters each time. But you can only use a letter as many times as it appears in the word we will show you. You have to make up real words, like the ones you find in the dictionary."

The experimenter then walked to the blackboard and said he would demon-

strate how it works. The experimenter then showed how the words "sure, source, for, our, sour, use" could be constructed from the word resourceful. After this demonstration, the experimenter instructed the subjects to open their booklets and make as many words from the word crystallization as they could.

Subjects were then told that they had eight minutes to work on the task. The subjects were also instructed that it was important to work as fast as they could, but to keep working until they were told to stop. The word crystallization, together with 50 numbered lines for responses were presented on a single page. Subjects were given one point for each correctly spelled word constructed, except for foreign words and proper names. The maximum number of points on this test was 50 since the total number of words possible was 50. Only words found in a standard dictionary were possible.

Code

The code task was also presented on a single page. At the top of the page was a key of nine digits with a matching key of nine symbols. This task consisted of four rows of empty boxes, 25 to a row with digits above and empty boxes below, arranged in a different rank order. It is important to note, however, that the first seven boxes were practice examples and therefore were not included in the subjects' score, only 93 boxes comprised the code task. One two-minute (120 seconds) trial was administered. Consistent with Wechsler's (1949) directions, one point for each square filled in correctly was given. However, there was a modification in the scoring process; one half point was given for symbols written backwards. The maximum number of points is 93.

Digit Span

Two trials of seven series of digits, administered alternately, ranging from the lowest (3) to the highest (9) positioned horizontally on a single page of paper, constituted the Digit Span task. The experimenters asked the subjects to open their booklets to the Digit Span answer sheet and then said:

> "We are going to say some numbers, listen carefully and when we are through, write them down in the order in which we have said them. Please do not start writing until we have finished saying the digits."

All digits were given at the rate of one per second and all subjects were started with the 3-digit series. The experimenters watched carefully to make sure that subjects did not write the digits before the person giving the digits had finished saying them. The subject's score was the highest number of digits repeated without error on either trial.

Verbal Memory or Recall

The task was a short story developed by the author. The experimenters began by saying:

> "We are going to tell you a story. We want you to listen carefully because we are going to ask you some questions about it. The name of the story is, "The Party Before Summer Vacation."

After the statement was made and the title given, the story (see Appendix G) was read, the subjects were then asked to turn to the answer sheet which contained 17 blank lines, numbered from 1 to 17. The experimenters then read the questions aloud in case any difficulties in reading comprehension were encountered. The task was scored by allowing 1 point for each correct answer and 1/2 point for partially correct answers. The maximum number of points was 17.

Procedure for Treating Data

A separate score for each subject was obtained. It was recommended that the scorers carefully read the directions located in the manual developed by the author for scoring the tasks. In scoring the test either one point was given for each correct answer or 1/2 point for each partially correct answer. A total score (which varied from task to task) for each individual was derived from this scoring procedure.

Statistical Analysis of Hypothesis

In order to test the hypotheses that were formulated in this study, a two (Black vs. white examiner) X two (positive toward Blacks vs. positive toward whites, attitudes) X two (low vs. high, level of self-esteem) factorial analysis of variance design (Kerlinger, 1966; McGuigan, 1968) was used. This type of analysis provided an independent test of the effect of each variable on task performance. In addition, it provided a test for the interaction of these three variables in their effect on the dependent variable (task performance).

CHAPTER IV

RESULTS AND DISCUSSION

General Statement

The results of this study are presented in three sections: (1) results related to the test of the main effect; (2) results related to the test of the two-way interactions; and (3) results related to the test of the three-way interaction. The statistical findings for the hypotheses which predicted these effects will be followed by a discussion of these results.

Analyses of Data

Measures of the dependent variables were analyzed by a multi-level (2 X 2 X 2) factorial analysis of variance.[1] The independent variables involved experimenter race (2), self-concept (2), and racial attitudes (2). There were 18 subjects in each cell.

Data relating to Performance Measures

Four tests varying in the amount of attention subjects were required to give experimenters were used to measure performance. As previously mentioned, there were two attentive tests, one of which was

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[1] All p values reported are based on two-tailed tests.

a verbal test and the other a numerical test (i.e. Verbal Recall, Digit Span, respectively). The other two measures were non-attentive tests which were also either numerical or verbal tests (i.e. Code, Anagrams, respectively). There was no prediction formulated about the potential impact of these test on the independent variables alone or in interaction with the other variables. However, because of the nature of the test (degree of attentiveness), it was felt that there would be a noticeable trend. The data, however, do not support this notion. No trend was evident in the operation of the tests with the independent variables.

Results relating to the Main Effect

Hypothesis one predicted that there would be a significant main effect of experimenters' race. Table 1 shows the means and standard deviations of the test scores across experimenters' race. A summary of the F ratios for the race variable is presented in Table 2.

TABLE 1

MEANS AND STANDARD DEVIATIONS OF TEST SCORES ACROSS EXPERIMENTER RACE AND PERFORMANCE TEST

Performance Test		Experimenters Race Black	White
Code Test	MN	44.3	43.2
	SD	11.7	15.6
Anagrams	MN	9.3	9.0
	SD	3.8	3.9
Verbal Recall	MN	11.6	10.7
	SD	4.5	4.3
Digit Span	MN	6.4	6.5
	SD	2.0	2.3

N = 144, 72 in each cell

TABLE 2

SUMMARY OF F RATIOS FOR RACE VARIABLE

Performance Measures	df	F ratio
Code Tests	1/136	.38
Anagrams	1/136	.28
Verbal Recall	1/136	.51
Digit Span	1/136	.13

F (1, 136) = 3.84, for $p < .05$

Contrary to the prediction, no main effects associated with race of experimenter were found on any of the tests.

Results related to Two-way Interactions

Hypothesis two predicted a two-way interaction between race of experimenter and level of self-concept. Formal analyses (see Appendix J) of the graphed data in Figures 2 and 3 and the summary of F ratios in Table 3 disclosed significant interactions for this prediction on the Coding ($F = 5.32$, df = 1/136, $p < .05$) and Verbal Recall ($F = 10.38$, df = 1/136, $p < .01$) tests.

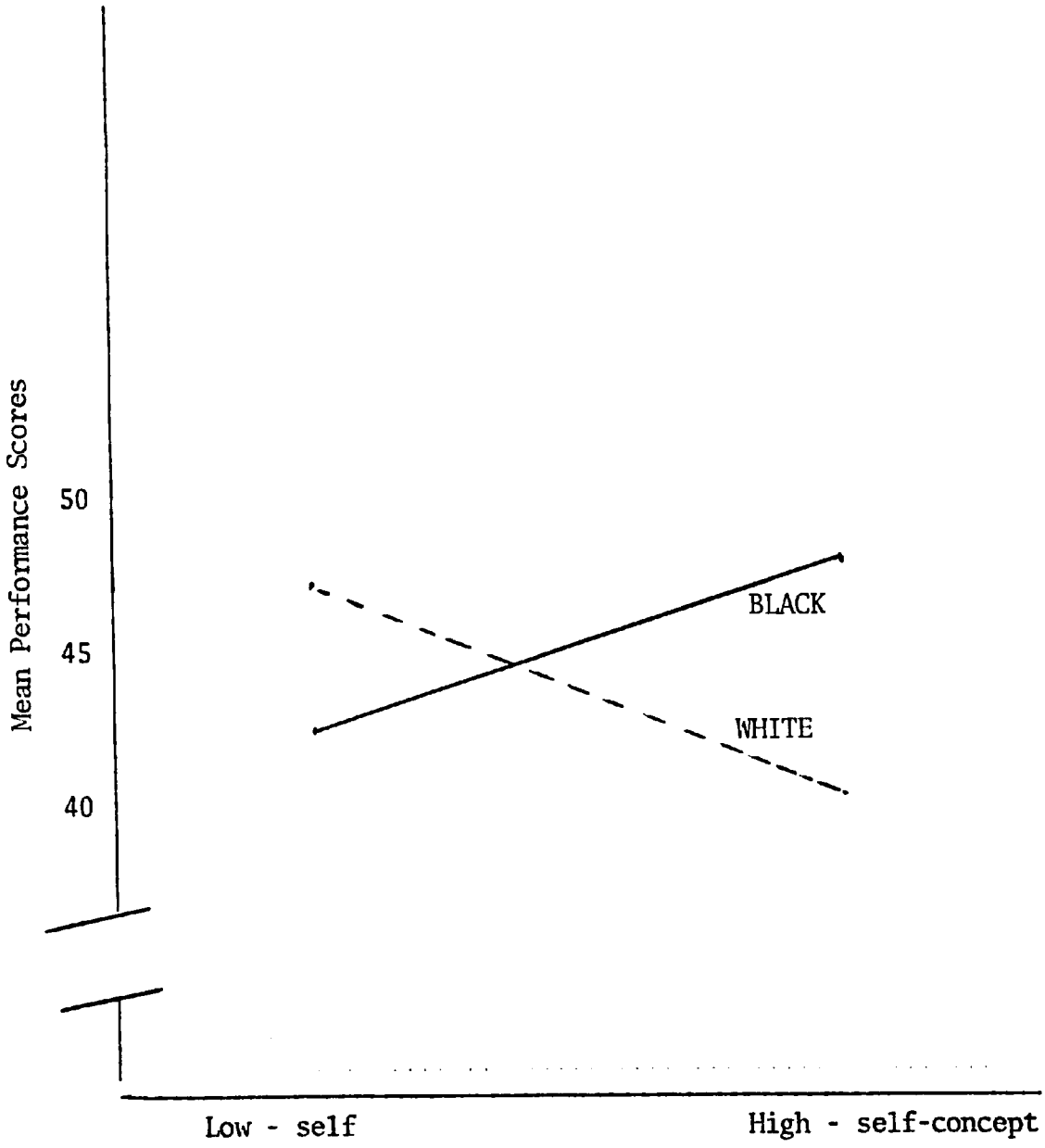


FIGURE 2 - MEAN CODING SCORES FOR EXPERIMENTER RACE AND LEVEL OF SELF-CONCEPT

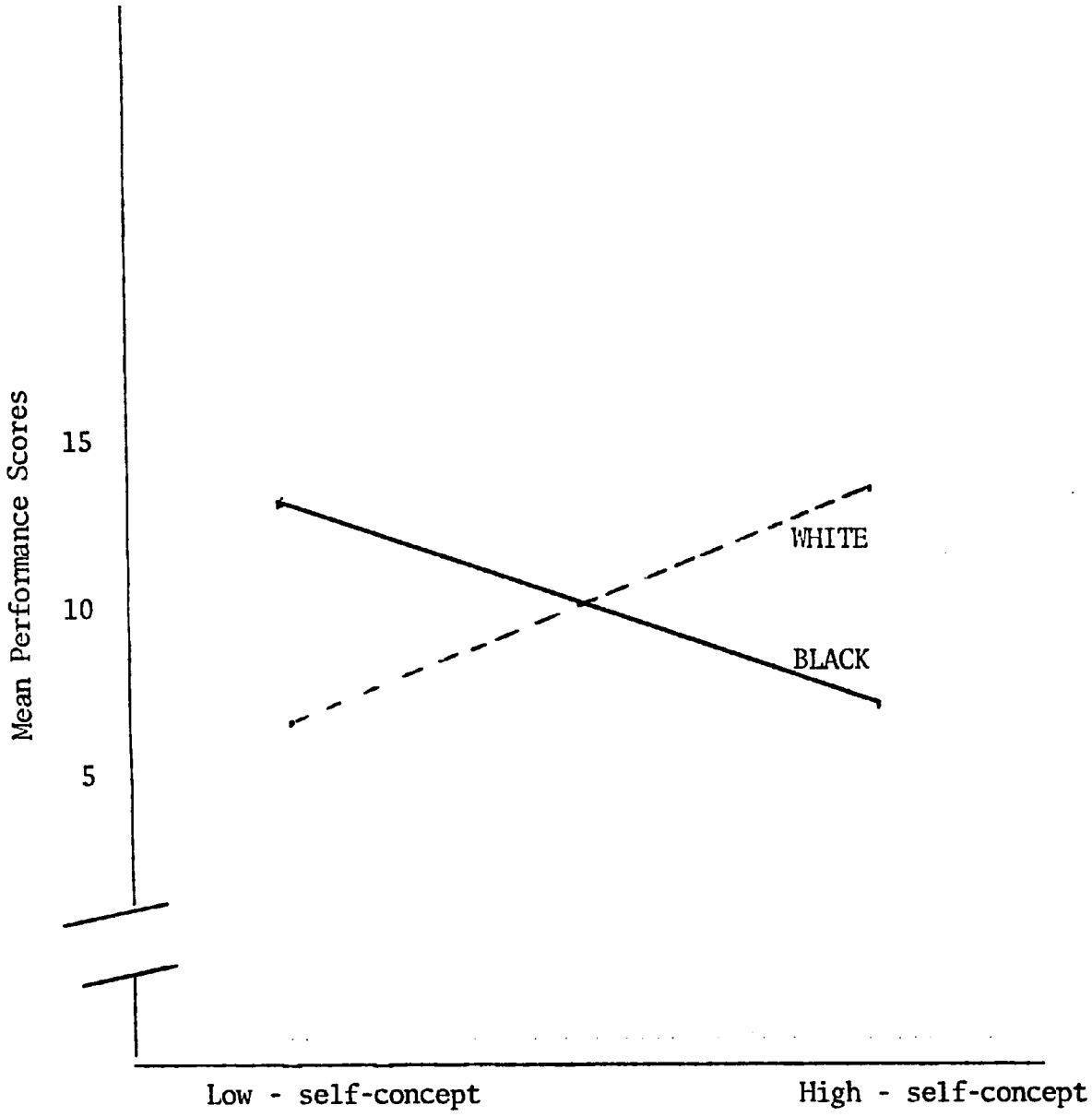


FIGURE 3 - MEAN VERBAL RECALL SCORES FOR EXPERIMENTERS RACE AND LEVEL OF SELF-CONCEPT

TABLE 3

SUMMARY OF F RATIOS FOR INTERACTION EFFECTS OF RACE VARIABLE (R) AND SELF-CONCEPT (S) VARIABLE

Performance Measure	df	F ratios
Code Test	1/136	5.32*
Anagrams	1/136	——
Verbal Recall	1/136	10.38**
Digit Span	1/136	——

*$p < .05$

**$p < .01$

Only on the Code Test was the predicted effect obtained. On this test, subjects with positive self-conceptions performed better with Black experimenters ($\bar{X}$ = 46.0) than white experimenters ($\bar{X}$ = 40.4), whereas the performance of subjects with negative self-concepts was was enhanced more by white experimenters ($\bar{X}$ = 45.9) than by Black experimenters ($\bar{X}$ = 42.7). Contrary to the prediction on the Verbal Recall test, this tendency was reversed. On the Verbal Recall test, students with a positive self-concept performed better with white experimenters ($\bar{X}$ = 12.6) than Black experimenters ($\bar{X}$ = 9.3). Conversely, students with a negative self-concept performed better with Black experimenters ($\bar{X}$ = 13.9) than white experimenters ($\bar{X}$ = 8.7).

From the graphed data in Figure 2, it is obvious that the difference in performance between white and Black experimenter conditions is greater for students with a high self-concept than students with a low self-concept. It is also apparent that the test scores of students with high self-concepts is higher when working under Black

experimenters than when working under white experimenters. For students with low self-concepts, this tendency was reversed.

The measure for which the unpredicted significant interaction was found was a verbal non-attentive test. On this measure (see Figure 3), unlike the results on the Code Test, the difference in performance between the white and Black experimenter conditions is greater for students with low self-concepts than students with high self-concepts. It is also noticeable that the test scores of students with a low self-concept is higher in the Black experimenter condition than the white experimenter condition and that the performance of students with a high self-concept is better in the white experimenter condition than in the Black experimenter condition.

Hypothesis three predicted a significant interaction between experimenter race and students' racial attitude. The statistical test of this hypothesis was considered to be the interaction effect (Racial attitude X Race), which was based on 1 and 136 degrees of freedom and resulted from the four analyses of variance computed for the performance measures (see Appendix J). Table 4 presents the means of tests scores for the Anagrams and Digit Span tests across experimenters' race and students' racial attitudes. Figures 5 and 6 show a graphical representation of the mean scores on the Anagrams and Digit Span tests which are presented in Table 4.

TABLE 4

MEANS OF TESTS SCORES FOR ANAGRAMS AND DIGIT SPAN TESTS ACROSS RACE OF EXPERIMENTER AND RACIAL ATTITUDE

Treatment Conditions	Anagrams	Digit Span
TW + W	10.3	7.4
TB + W	7.6	5.6
TW + B	8.1	5.8
TB + B	10.5	7.0

TW = Positive racial attitudes toward whites

TB = Positive racial attitudes toward Blacks

W = White experimenters

B = Black experimenters

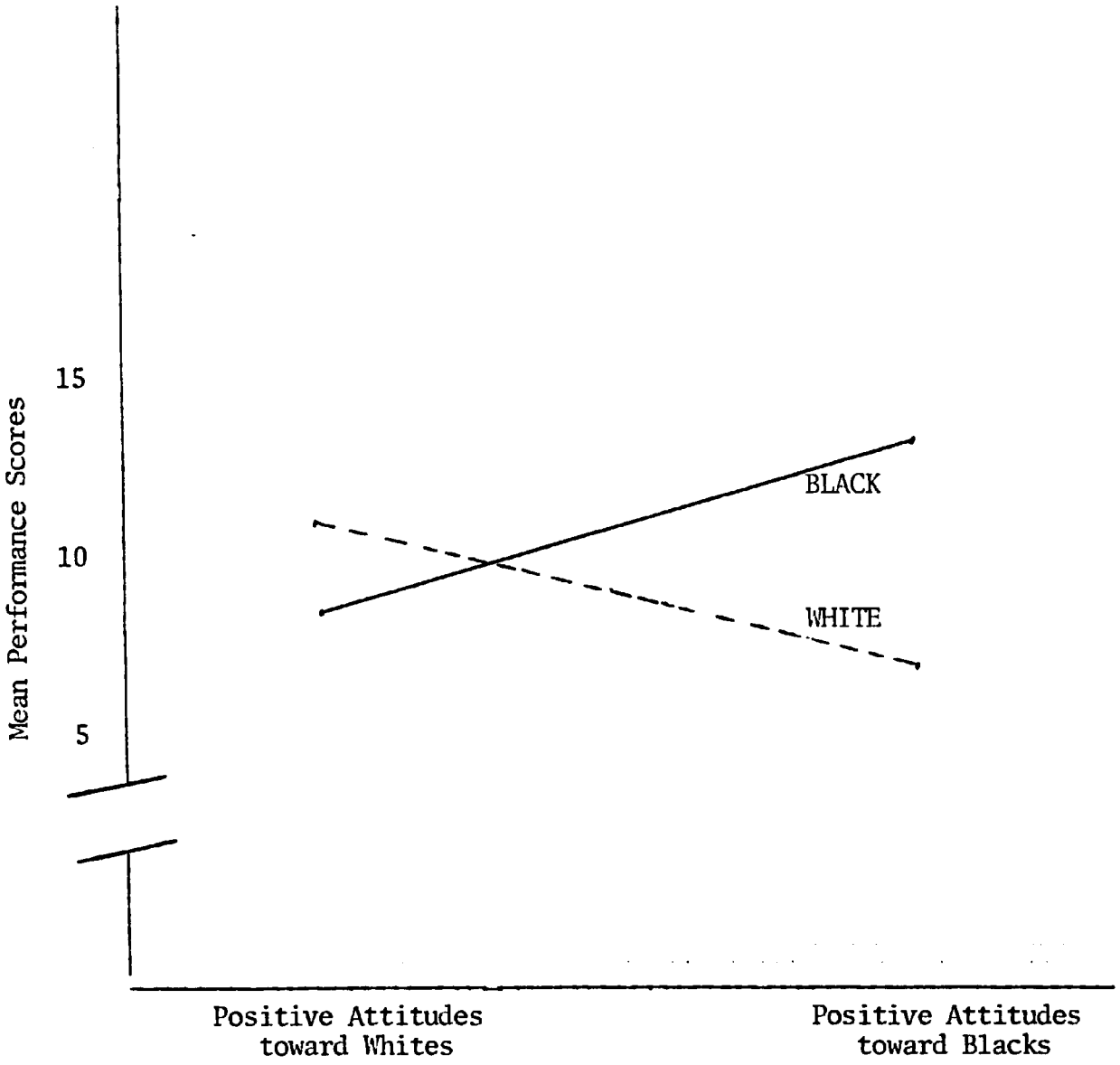


FIGURE 4 - MEAN ANAGRAMS SCORES FOR EXPERIMENTER RACE AND RACIAL ATTITUDE

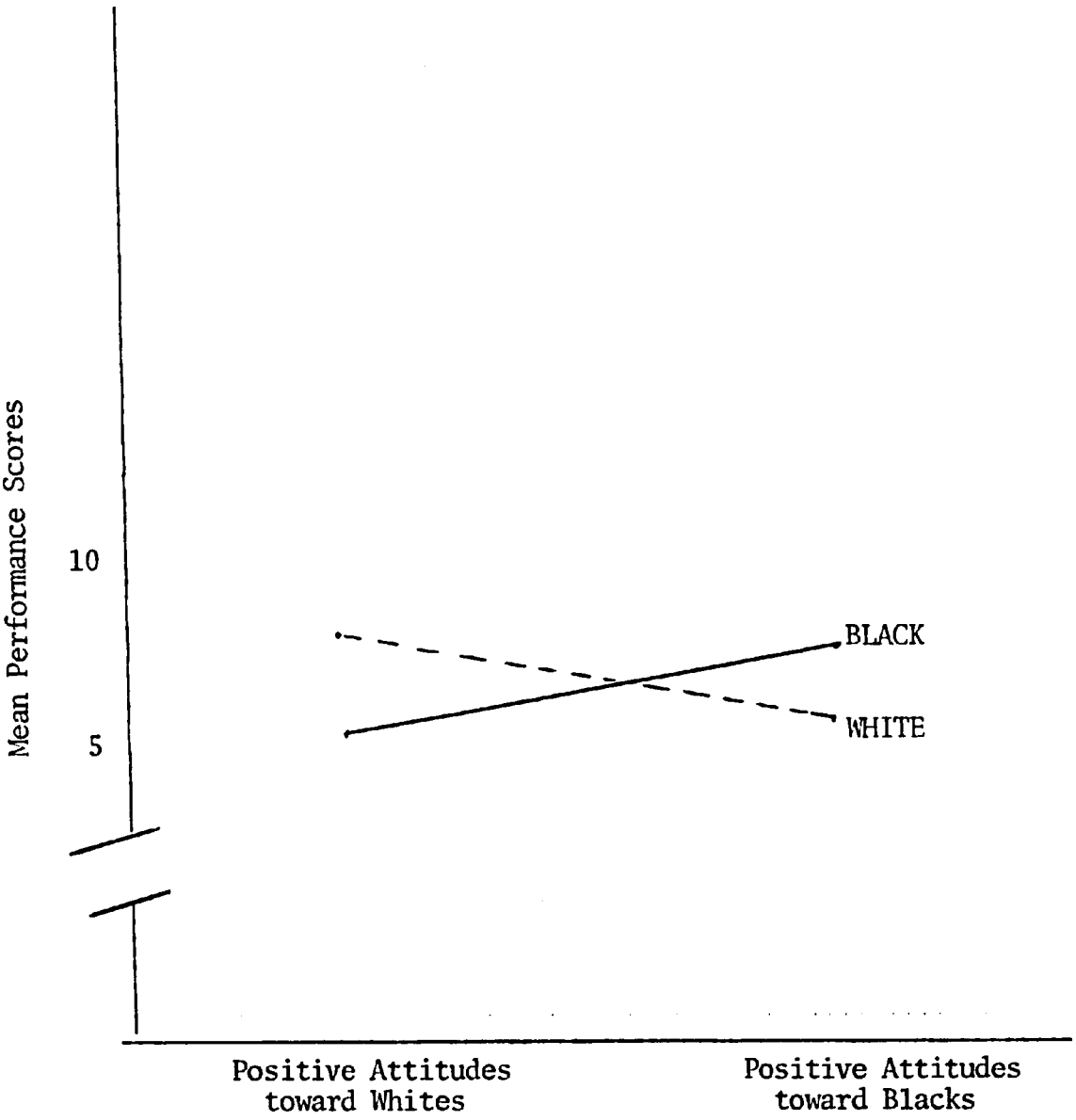


FIGURE 5 - MEAN DIGIT SPAN SCORES FOR EXPERIMENTERS RACE AND RACIAL ATTITUDE

Consistent with the hypothesis (3), the data presented in Table 4 and the graphical data in Figures 5 and 6, show that on two of the four tests, Black experimenters enhanced the performance of students who had more positive racial attitudes toward Blacks ($\bar{X}$ = 10.5, Anagrams) ($\bar{X}$ = 7.0, Digit Span) than whites ($\bar{X}$ = 8.1, Anagrams) ($\bar{X}$ = 5.8, Digit Span), whereas white experimenters enhanced the performance of students whose racial attitudes were more positive toward whites ($\bar{X}$ = 10.3, Anagrams) ($\bar{X}$ = 7.4, Digit Span) than Blacks ($\bar{X}$ = 7.6, Anagrams) ($\bar{X}$ = 5.6, Digit Span). These findings suggest that performance is best in situations where there is congruity of students' racial attitudes and race of experimenter (positive attitudes toward whites and white experimenters, positive attitudes toward Blacks and Black experimenters) and worse when there is incongruity of students' racial attitudes and race of experimenter (positive attitudes toward whites and Black experimenters, positive attitudes toward Blacks and white experimenters).

The summary of F ratios for the interaction effects of experimenters' race and racial attitude are presented in Table 5. From this table and the formal analysis (see Appendix J), it is evident that highly significant interactions were observed between race of experimenter and racial attitude for the following tests, Anagrams (F = 17.59, df = 1/136, $p < .001$) and Digit Span (F = 30.93, df = 1/136, $p < .001$). It is also evident that performance differences were found on the Verbal Recall test (see Appendix K, Table 5). This difference did not reach a conventional level of significance, but tended to be in the predicted direction.

TABLE 5

SUMMARY OF F RATIOS FOR INTERACTION EFFECTS OF RACE VARIABLE (R) AND RACIAL ATTITUDE VARIABLE (A)

Performance Measure	df	F ratios
Code Test	1/136	——
Anagrams	1/136	17.59***
Verbal Recall	1/136	3.44
Digit Span	1/136	30.93***

**p < .01

***p < .001

It also appears obvious for the two significant performance measures, that students' tests scores are influenced by the congruity or incongruity of students' racial attitudes and the race of the experimenters.

As previously mentioned, no prediction was formulated for the third two-way interaction (racial attitude X level of self-concept). However, in testing the predictions of this study, the relationship between students racial attitudes and level of self-concept were indirectly explored. Table 6 presents the means of the performance measures across students' level of self-concept and racial attitudes. Analysis of variance F ratios are summarized in Table 7.

TABLE 6

MEANS OF TESTS SCORES ACROSS STUDENTS' RACIAL ATTITUDES AND LEVEL OF SELF-CONCEPT

Racial Attitude	Code		Anagrams		Verbal Recall		Digit Span	
	L	H	L	H	L	H	L	H
TW	54.2	38.9	9.6	8.8	12.7	9.7	7.7	5.6
TB	34.4	47.5	9.0	9.1	10.0	12.2	4.7	7.8

TW = Positive racial attitudes toward whites

TB = Positive racial attitudes toward Blacks

Considering the findings, it is apparent that the results which pertain to subjects with positive attitudes toward Blacks with low or high self-concepts are easier to explain than those which pertain to subjects who have low or high self-concepts with positive attitudes toward whites. Similar to the results for the third prediction (the second two-way interaction), the results for the former two groups (TB - L, TB - H) indicate that performance is best when subjects' racial attitudes are compatible with their level of self-concept (i.e. TB - H) than when there is incompatibility (i.e. TB - L). The findings for the latter two groups (TW - L) as previously mentioned, are perplexing.

TABLE 7

SUMMARY OF F RATIOS FOR INTERACTION EFFECTS OF SELF-CONCEPT VARIABLE (S) AND RACIAL ATTITUDE VARIABLE (A)

Performance Measure	df	F ratio
Code Test	1/136	56.39***
Anagrams	1/136	——
Verbal Recall	1/136	3.93*
Digit Span	1/136	96.49***

*$p < .05$

***$p < .001$

As can be seen, significant F ratios were found for three of the performance tests. On the basis of these results, it seems that not only is there a relationship between self-esteem and racial attitudes as suggested in Chapter two, but in light of the highly significant (i.e. .001 level of significance) interactions for the Code and Digit Span tests, there appears to be a strong relationship between students' racial attitudes, level of self-concept and performance. Further, this relationship seems to be influenced by the compatibility or incompatibility of students' racial attitudes and level of self-concept. The interaction effects (Race X Self-esteem X Racial attitudes) resulting from the four analyses of variance computed for the performance measures and based on 1 and 136 degrees of freedom were considered as the statistical test of this hypothesis.

Results for the Three-way interaction

Hypothesis four predicted that race of experimenter, students' racial attitudes and level of self-concept would interact such that the effect would be modified by students level of self-concept. The interaction effects (Race X Self-esteem X Racial attitude) resulting from the four analyses of variance computed for the performance measures and based on 1 and 136 degrees of freedom were considered as the statistical test of this hypothesis. Table 8 presents the summary of F ratios which are based on the formal analysis (see Appendix J) of the data. Table 9 presents the means of the tests scores across performance measures, race of experimenter, students racial attitudes and level of self-concept.

TABLE 8

SUMMARY OF F RATIOS FOR INTERACTION EFFECTS OF RACE VARIABLE (R), SELF-CONCEPT VARIABLE (S) AND RACIAL ATTITUDE VARIABLE (A)

Performance Measure	df	F ratio
Code Test	1/136	5.29*
Anagrams	1/136	—
Verbal Recall	1/136	—
Digit Span	1/136	—

*$p < .05$

TABLE 9

MEANS OF TESTS SCORES ACROSS EXPERIMENTERS RACE, STUDENTS LEVEL OF SELF-CONCEPT AND STUDENTS RACIAL ATTITUDES

Racial Attitude / Race of Experimenter	Code			Anagrams		
	L	H	Combined $\bar{X}$'s	L	H	Combined $\bar{X}$'s
TW + W	57.9	33.9	45.9	10.6	10.1	10.3
TB + B	33.0	48.1	41.5	10.4	10.7	10.5
TW + B	50.5	43.9	47.2	8.7	7.5	8.1
TB + W	33.9	47.0	40.4	7.6	7.6	7.6

Racial Attitude / Race of Experimenter	Verbal Recall			Digit Span		
	L	H	Combined $\bar{X}$'s	L	H	Combined $\bar{X}$'s
TW + W	11.9	12.0	11.9	8.4	6.5	7.4
TB + B	14.4	11.1	12.8	5.5	8.4	7.0
TW + B	13.5	7.4	10.4	7.0	4.7	5.8
TB + W	5.6	13.2	9.4	3.8	7.3	5.6

NOTE: TW + W = Positive racial attitudes toward whites and white experimenters

TB + B = Positive racial attitudes toward Blacks and Black experimenters

TW + B = Positive racial attitudes toward whites and Black experimenters

TB + W = Positive racial attitudes toward Blacks and white experimenters

The prediction was not confirmed by the data. As can be seen in Table 8, it was only on the Code test that a significant ($F = 5.29$, $df = 1/136$, $p < .05$) interaction was observed between experimenter

race, students' level of self-concept and racial attitudes. Further inspection of the means (see Table 9) do not show that the effects of the aforementioned variables were modified by students' level of self-concept.

It also becomes apparent on inspection of the means which are presented in Table 9 (specifically the highest and lowest combined means) for the Anagrams, Verbal Recall and Digit Span tests that like the results for the third prediction (the second two-way interaction), there is a tendency for scores to be higher when there is congruity of race of experimenter and students' racial attitudes, and worse when there is incongruity of these two variables. On the Code test, however, this trend was not present. The results for Coding are perplexing since the highest mean score ($\overline{X}$ = 47.2) was observed in an incongruent situation (positive racial attitude toward whites and Black experimenters) and the second highest mean score ($\overline{X}$ = 45.9) was observed for students with positive racial attitudes toward whites who were tested by white experimenters (a congruent situation).

From the results reported above, it is apparent that the data do not support hypotheses one and four. The data, however, do indicate partial support for hypothesis two and substantial support for hypothesis three. For the first hypothesis, none of the differences between white and Black experimenters which influence students' test scores were found to be significant. This suggests, especially since several significant interactions were observed for hypotheses two and three, that race alone is too simple an explanation. A significant interaction was also observed for hypothesis four, however, the predicted trend that the interaction of race of experimenter, students' level of

self-concept, and racial attitudes would be modified by students' level of self-concept, was not supported.

Although the results partially support the second hypothesis (the first two-way interaction), that the race of experimenter would interact with students' level of self-concept, it is evident that with the exception of performance on Coding, the direction of the interaction was not predicted. Hypothesis three (the second two-way interaction) was fully supported. Students with positive racial attitudes toward Blacks performed better under Black experimenters while students with positive racial attitudes toward whites performed better with white experimenters. These findings suggest that performance is better in congruent situations (i.e. where students' racial orientations are congruent with the race of experimenter) and worse in incongruent situations (i.e. where students' racial orientations are incongruent with the race of experimenter).

There were no predictions made regarding the interaction of students level of self-concept and racial attitudes. However, the significant interaction of students' level of self-concept and racial attitudes reveals that students' whose racial attitudes are compatible with their level of self-concept performed better than students whose racial attitudes are incompatible with their level of self-concept. Students with positive racial attitudes toward whites, who had a low self-concept performed better than students with a high self-concept who had positive racial attitudes toward whites. Students with positive racial attitudes toward Blacks who had a high self-concept performed better than students with a low self-concept who had positive racial attitudes toward Blacks.

In view of the results, it appears that the most salient finding of this study is that there are two situations in which performance is better: (1) where there is congruity of students racial orientation and race of experimenter; and (2) where students racial orientations are compatible with their level of self-concept. The relevance of these findings to the effects of race of experimenter is that they suggest that the effects of race of experimenter on students' test performance may be influenced by the congruity of students' racial orientations with the race of experimenters or the compatibility of students level of self-concept with their racial orientations. This suggest the possibility that some of the inconsistent findings of other studies which have been concerned with the effects of experimenters' race may have resulted from the failure of these studies to consider the congruity or incongruity of students' racial attitudes with experimenters' race or the compatibility or incompatibility of subjects' level of self-concept and subjects racial attitudes.

Considering these findings, they appear to be interpretable within the framework of reference group theory. The application of this notion to the present findings is resultant of the following assumptions: that (1) a white or Black racial group may serve as a reference group for Black students; (2) white or Black experimenters may serve as reference persons; and (3) the expression of positive attitudes toward one racial group or the other is an indication of the students' choice of a reference group. A reference group is ..."one in terms of which the individual views or evaluates himself, one whose standards are used as a comparison point for the individual's behavior (Jones and Gerard, 1967, p. 81)". Thus, individuals or groups may

serve as referent others to the extent that they serve a comparative (when a person or group provides a standard of reference against which the person may compare his own judgments, attitudes, or performance) or a normative (when a person or group is able to give rewards for conforming behaviors or punishment for a lack of conformity) function. Since students were informed that the tests used in this study measured memory, the ability to learn and the ability to concentrate, students might have been concerned about the adequacy of their performance. Thus, it is likely that experimenters could have been perceived as potentially serving a comparative function.

Interpreting the results for the interaction of race of experimenter and racial attitude within a reference group theory framework, the findings suggest that whether the subjects' performance was enhanced more under white or Black experimenters depended upon which experimenter was perceived by the students as a reference person. In other words, performance depends upon the congruity of the experimenters' race with the students' racial orientation (choice of a reference group). It thus appears that subjects did not perceive the racial condition where there was a decrement in performance as serving a comparative function. On the other hand, in the condition where performance improved, successful performance may have been perceived as more meaningful and relevant to the acquisition of present or future goals (a means of students' maximizing their outcomes). Therefore in light of the effects of race of experimenter and students' racial attitudes on the test scores of students, an important factor to be considered relates to the degree to which the students' needs or goals are furthered by either identification with one or the other racial group or successful performance in one racial condition or the other.

For the interaction of students self-concept and racial attitudes the findings indicate that while the tests scores of students with positive racial attitudes toward whites is higher if they have a low self-concept as opposed to a high self-concept, the tests scores of students with positive racial attitudes toward Blacks is higher when students have a high self-concept. This finding suggests the tests scores of subjects with positive racial attitudes toward Blacks who have a high self-concept and subjects with positive racial attitudes toward whites who have a low self-concept are directly related to the compatibility of their level of self-concept with their racial orientations. The application of this notion to the present findings is by way of the following underlying assumption, that subjects with a negative self-concept identify with white experimenters and subjects with a positive self-concept identify with Black experimenters. This notion suggests that students' racial orientation (or choice of a reference group) is mediated by their level of self-concept. No studies have been found which have systematically studied the relationship between self-concept and racial orientation. Thus, there is no direct support for the aforementioned assumption. However, several researchers (i.e. Epps, 1969; Erikson, 1967, 1968; Kardiner and Oversey, 1962) have pointed out that unrealistic feelings of inferiority and feelings of self-hatred (which they suggest lead either to a desire to identify with whites or to antisocial behavior against one's own racial group) are characterictics associated with a negative self-concept. Given this, it appears reasonable to assume that an absence of the characteristics associated with a negative self-concept would be indicative of a positive self-concept. Therefore, the opposite

effect with regard to racial identification or choice of reference groups should be evident. Thus, as the findings appear to suggest, students with positive racial attitudes toward whites would perform better if they have a low self-concept and students who have positive attitudes toward Blacks would perform better if they have a high self-concept.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study of the effects of experimenters' race, self-concept and racial attitudes on the performance of Black eighth grade male students was concerned and undertaken with one major purpose in mind; to further the understanding of how Black students performance is effected by the aforementioned variables alone or in interaction with each other.

Typically, research on the effects of race of experimenter has revealed that the performance of Black students on psychological tests is affected by either the race of experimenter alone or an interaction of the race variable with other variables (e.g. level of anxiety, perceived difficulty of the task). It was also suggested that the race of experimenter may interact with the students' level of self-concept and racial attitudes. A review of the literature on self-conception and racial attitudes suggested a relationship between these variables and performance in interpersonal interactions.

Two crucial questions concerning the test performance of Black students emerged: (1) Will the students perform in a different manner for Black or white experimenters on performance tests? and (2) Will the performance of Black students be affected by their level of self-

concept and racial attitudes? Given these questions, four working hypotheses were formulated.

Four tests with somewhat different performance requirements were used to measure performance. The tests were classified as either attentive or non-attentive verbal (Verbal Recall and Anagrams, respectively) and attentive or non-attentive numerical (Digit Span and Coding, respectively). Because of the varying test demands (i.e. attentiveness or non-attentiveness), it was felt that performance might differ on the tests but the possible direction of the influence was not clear. Thus, no predictions were formulated. There was no noticeable trend in the importance of the tests on the independent variables alone or in interaction with other independent variables. The results of the analyses produced a mixed pattern of support for the four predictions. The first and fourth predictions were rejected, the second was partially upheld and the third was substantially supported. The following are typical of the basic ideas which were substantiated and some important unanticipated findings.

The first prediction stated that the test scores would generally be higher when students were tested by Black experimenters than when tested by white experimenters. This prediction was tested by a 2 (race) X 2 (self-esteem) X 2 (racial attitude) factorial analysis of variance of four performance tests. The prediction was not upheld. No significant $\underline{F}$ ratios for the experimenters' race (main effect R) were found for any of the tests.

The second hypothesis was that students who were high in self-esteem, as opposed to those who were low in self-esteem, would perform better with Black experimenters. Significant $\underline{F}$ ratios were obtained

for the Code and Verbal Recall tests. Students who were high in self-esteem performed better with white experimenters, while students who were low in self-esteem performed better with Black experimenters on the Verbal Recall test. However, only on the Code tests were the findings consistent with the prediction. On Verbal Recall, the findings were inconsistent with the expected effect.

The third hypothesis stated that the test scores of students with positive racial attitudes toward Blacks would be higher with Black experimenters, whereas students with positive racial attitudes toward whites would perform better with white experimenters. Interaction effects from the four analyses of variance scores were used to test the hypothesis. The prediction was substantially supported since significant F ratios were observed for interactions on the Anagrams and Digit Span tests. Performance differences were also observed on the Code and Verbal Recall tests. Although differences failed to reach conventional levels of significance performance on the Verbal Recall test tended to be in the predicted direction. It was also apparent that performance was better in congruent situations and worse in incongruent situations. In view of this noticeable trend, the findings suggest that the interactions between experimenters' race and the racial attitudes of students on their performance may depend upon the compatibility or incompatibility of the race of experimenters with students' racial attitudes.

No prediction was made for the relationship between self-esteem and racial attitudes. However, in testing the present hypothesis, significant interactions were observed for three of the performance measures. Inspection of the means disclosed a tendency for students with positive

attitudes toward whites to perform better if they had low self-esteem and students with positive attitudes toward Blacks to perform better if they had high self-esteem. The results not only imply a relationship between students' level of self-esteem and racial attitude, but also suggest that performance is better in situations where students' level of self-esteem is compatible with their racial attitudes. The fourth hypothesis predicted that experimenters' race, students' racial attitudes and level of self-esteem would interact such that the effect would be modified by students' level of self-concept. The interaction effects from the four factorial analysis of variance scores were used to test this prediction. A significant F ratio was observed on the Code test for the three-way interaction. However, the effect was not in the predicted direction.

Results were interpreted to support a relationship between the race of experimenter, self-concept, racial attitudes and the performance of Black junior high school male students such that:

1. The performance of students with positive racial attitudes toward whites is detrimentally affected when working under Black experimenters (incongruity of racial orientation and race of experimenter), but improves when working under white experimenters (congruity of racial orientation and race of experimenter).

2. The test scores of students with positive racial attitudes toward Blacks are lower when tested by white experimenters (incongruity of racial attitude and race of experimenter) than when they are tested by Black experimenters (congruity of racial orientation with race of experimenter).

3. Students with positive racial attitudes toward Blacks perform better when they have a positive self-concept (compatibility of students' level of self-concept and racial orientation) whereas students with positive racial attitudes toward whites perform better when they have a negative self-concept (compatibility of students' level of self-concept and racial orientation).

The absence of significant main effects for experimenters' race suggests the experimenters from both races may have had similar behavior (i.e. style of interacting with children, modes of dress and speech) and were not perceived as distinctly different from each other. Unfortunately, because of the nature of the design used in this study, data for individual experimenters were not collected, therefore, it is not possible to examine the effect of individual experimenters on students' performance. In view of these possibilities, however, it seems that a replication study should investigate whether there are individual experimenter effects.

Considering the paucity of literature that has systematically studied the relationships between attentive and non-attentive numerical and verbal tests, race of experimenter and students' level of self-concept and racial attitudes, it would appear that future research should give careful consideration to these variables and their relationship to the type of tests used to measure students' performance. Further, since subjects in this study were low income Black eighth grade junior high students, it is evident that the findings are generalizable to only Black low income students. Thus, subsequent research might be conducted on middle income Black students. This would allow comparison to be made between the socioeconomic groups on the independent variables. It is also suggested that a replication study examine the effects of race of experimenter, self-concept and racial attitudes on the test performance of white eighth grade junior high school students. Often it is assumed that white students are not susceptible to similar social phenomena. Comparable studies on a white sample would address this issue.

APPENDIX A

A. Questionnaire containing the following:

I. Instrument for collecting Social Status Background Data

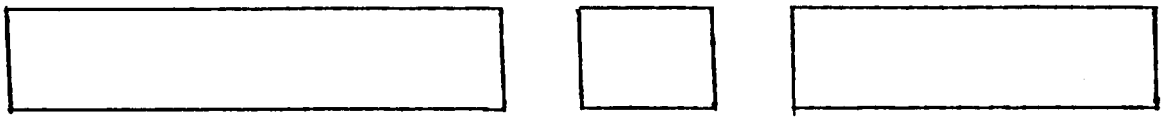
II. Form X for measuring attitudes toward whites

III. Self-esteem scale

IV. Form Y for measuring attitudes toward Blacks

V. Self-concept of ability scale (filler)

PLEASE PRINT YOUR NAME AND HOMEROOM NUMBER



FIRST NAME | MIDDLE INITIAL | LAST NAME



HOMEROOM NUMBER

We are from the Phillip's Institute for Social Research. We have been conducting studies in schools for several years now.

We hope that when we are finished, our findings will help to make schools a better place for students. For this we need your cooperation in answering these questions.

Please answer these questions as frnakly as you can. Your answers will be completely confidential. No one in this school will ever see them.

Try to work quickly and carefully, for time is limited.

If you have any questions at any time, please raise your hand and someone will come and try to answer them.

THANK YOU VERY MUCH FROM THE ENTIRE STAFF OF THE PHILLIP DUKES' RESEARCH INSTITUTE.

I

1. How old are you? (Mark one box only)

1	12	2	13	3	14	4	15	5	16

2. What grade are you in school now?

1	7	2	8	3	9

3. What type of work does your father and/or mother do? (Please write your answers on the lines below).

Father _____

Mother _____

4. How far did your father and/or mother go in school? (Mark only one box for father and/or mother).

Father:	1	0-4 years elementary school	5	high school graduate
	2	5-6 years elementary school	6	some college
	3	junior high school	7	college graduate
	4	some high school		
Mother:	1	0-4 years elementary school	5	high school graduate
	2	5-6 years elementary school	6	some college
	3	junior high school	7	college graduate
	4	some high school		

We would like you to use this page to draw a picture of a man. (When you finish, raise your hand).

II

Mark a plus sign (+) after each statement that you believe to be true about white people. Your answers and scores will not affect your grade in any of your classes. If you have any questions, we will answer them for you. (REMEMBER: only mark a plus sign (+) after the statements you believe to be true).

(1) Do very good at anything they try . . . . . _____

(2) Are slow to learn . . . . . _____

(3) Have a lot of pride in themselves . . . . . _____

(4) Have a great love of power . . . . . _____

(5) Can be depended upon as being honest . . . . . _____

(6) Are jealous of others . . . . . _____

(7) Are better than any other group . . . . . _____

(8) Respect only physical force . . . . . _____

(9) I consider it a privilege to associate with this group . . _____

(10) Are always suspicious of others . . . . . _____

(11) Make good leaders . . . . . _____

(12) Cannot be trusted . . . . . _____

(13) Learn very fast . . . . . _____

(14) Are considerate of others . . . . . _____

(15) Spend their money unwisely . . . . . _____

(16) Are generous to others . . . . . _____

(17) I would be willing to trust these people . . . . . _____

III

We would like to ask you about some feelings about yourself. Read each entence, then mark the box that shows how often it is true for you. (Mark only one box for each question).

1. I feel that I'm a person of worth, at least on an equal plane with others.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

2. I feel that I have a number of good qualities.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

3. All in all, I am inclined to feel that I am a failure.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

4. I am able to do things as well as most other people.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

5. I feel I do not have much to be proud of.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

6. I take a positive attitude toward myself.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

7. On the whole, I am satisfied with myself.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

8. I wish I could have more respect for myself.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

9. I certainly feel useless at times.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

10. At times I think I am no good at all.

   1 strongly agree

   2 agree

   3 disagree

   4 strongly disagree

IV

Mark a plus sign (+) after each statement that you believe to be true about black people. Your answers and scores will not affect your grade in any of your classes. If you have any questio s, we will answer them for you. (REMEMBER: only mark a plus sign (+) after the statements you believe to be true).

(1) Are generous to others . . . . . _____

(2) Are always suspicious of others . . . . . _____

(3) Can be depended upon as being honest . . . . . _____

(4) Have a great love of power . . . . . _____

(5) Are jealous of others. . . . . _____

(6) Have a lot of pride in themselves . . . . . _____

(7) Make good leaders . . . . . _____

(8) Can not be trusted . . . . . _____

(9) Learn very fast. . . . . _____

(10) Spend their money unwisely . . . . . _____

(11) Are better than any other group . . . . . _____

(12) Respect only physical force . . . . . _____

(13) I consider it a privilege to associate with this group . _____

(14) Are considerate of others . . . . . _____

(15) I would be willing to trust these people . . . . . _____

(16) Are slow to learn . . . . . _____

(17) Do very good at anything they try . . . . . _____

We would like to ask you about some other feelings about yourself. Read each sentence, then mark the bos that shows how you feel about yourself. (Mark only one box for each question).

1. How do you rate yourself in school ability compared with your close friends?

   /1/ I am the best

   /2/ I am above average

   /3/ I am average

   /4/ I am below average

   /5/ I am the poorest

2. How do you rate yourself in school ability compared with those in your class at school?

   /1/ I am among the best

   /2/ I am above average

   /3/ I am average

   /4/ I am below average

   /5/ I am among the poorest

3. Where do you think you would rank in your class in high school?

   /1/ among the best

   /2/ above average

   /3/ average

   /4/ below average

   /5/ among the poorest

4. Do you think you have the ability to complete college?

/1/ yes, definitely

/2/ yes, probably

/3/ not sure either way

/4/ probably not

/5/ no

5. Where do you think you would rank in your class in college?

/1/ among the best

/2/ above average

/3/ average

/4/ below average

/5/ among the poorest

6. Think about your ability. In order to become a doctor, lawyer or university professor, work beyond four years of college is necessary. How likely do you think it is that you could complete such advanced work?

/1/ very likely

/2/ somewhat likely

/3/ not sure either way

/4/ unlikely

/5/ most unlikely

7. Forget for a moment how others grade your work. In your own opinion, how good do you think your work is?

/1/ my work is excellent

/2/ my work is good

/3/ my work is average

/4/ my work is below average

/5/ my work is much below average

8. What kind of grades do you think you are capable of getting?

/1/ mostly A's

/2/ mostly B's

/3/ mostly C's

/4/ mostly D's

/5/ mostly E's or F's

APPENDIX B

Index of Socioeconomic Status Administration Manual

INSTITUTE FOR DEVELOPMENTAL STUDIES

Department of Psychiatry
New York Medical College

Index of Socioeconomic Status

Administration Manual

I. Materials

1. Individual Rating Scales
   a. Occupational Rating Scale
   b. Educational Rating Scale
2. SES Conversion Table

II. Procedures

The index of socioeconomic status (SES) utilizes two factors to estimate the relative social positioning of individuals in a given community.

These factors are identified as:

1. occupation of main support of the family
2. education of main support of the family

Implicit assumptions in the use of the scale are that:

1. within any family unit, the social status of an individual can be derived from certain characteristics of the head of that family, and
2. within a community certain individuals are accorded more prestige than others on the basis of their occupation, education and/or income.

The following instructions outline the steps in obtaining an SES rating for children who are to be tested. The procedure involved is

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Original, 1961; revised, 1965

simple and the rating can be obtained in a few short steps.

INSTRUCTIONS

1. Find the occupation of the specified head of the family in the occupational classification given in the following pages:

OCCUPATIONAL RATING SCALE

Occupation	Rating
U.S. Supreme Court Justice U.S. Diplomat or Foreign Service State Governor, Mayor of large city U.S. Cabinet Member U.S. Senator, Congressman Physician College President or Chancellor College Professor Scientist (government or other) State Attorney Bank Executive Investment Broker Captain of ocean-going vessel	10
County Judge Department Head, State Government Motion Picture Actor, (not "extra") Minister Lawyer Architect Postmaster, City Chemist Dentist Electronic Engineer Nuclear Physicist Civil Engineer Mathematician Radio entertainer (except announcer) Director, Large Corporation Business Executive, Advertising Executive Airplane Pilot Inventor	9
Editor-owner Newspaper Psychologist Veterinarian Historian, Economist	8

Sociologist
Medical Researcher, Biologist
Author
Accountant, C.P.A.
Registered Nurse
Justice of the Peace
Government Investigator (FBI, Justice Dept., etc.)
Artist, performing artist 8
Professional Athlete
Interior Decorator, Industrial Designer, Fashion Designer
Factory, Department Store Owner
High School Teacher
Building Contractor
Radio Operator

Mine Owner-operator
Owner of Logging camps
Musician in symphony orchestra
Small Retail Owner
Sheriff-county
Army-Captain or above
Elementary school teacher 7
Railroad-supervisor
Real estate agent
Agricultural Agent-county
Laboratory Technician
Detective of police
Fire Lt. or above

Private Secretary
Undertaker
Social, Welfare worker
Foreman or supervisor, factory
Labor Union official-national only
Radio Announcer
Farm owner-operator
Hotel manager
Newspaper Columnist
Owner-operator print shop 6
Railroad Engineer
Electrician
Watchmaker, factory
Trained Machinist
Mason
Dental Technician
Auto Salesman
Office Manager

Owner-operator dry cleaning
Linotype operator, printer
Newspaper reporter, proofreader
Oil well driller (not engineer)
Manager samll store
Policeman, private investigator
Mail clerk carrier
Bookkeeper
Insurance agent 5
Traveling salesman
Receptionist, typist secretary
Bank clerk
Railroad Conductor, ticket agent
Practical Nurse
I.B.M. Keypunch operator

Playground worker
Teachers aid
Structural iron worker
Carpenter
Pawnbroker
Tenant farmer
Auto mechanic
Dressmaker
Beautician
Plumber 4
Telephone operator, lineman
Labor union official - local only
Lunch stand operator
Painter, house and/or non-factory
Salesclerk, grocery cleak
Musician-popular, dance, singer
Furniture finisher
T.V. repairman
Fireman
Welder, offset pressman

Machinist-factory
Barber
Shoe repariman
Railroad baggage handler
Other semi-skilled
Cook-restaurant or hotel, short order
Chauffeur-private
Fisherman 3
Motorman, bus driver, conductor
Milk route man
Shipping Clerk
Cashier
Merchant Seaman
Truck driver

Gas station attendant	
Quarry worker	
Nightclub singer	
Porter-railroad	
Taxi driver	
Waiter-bartender	
Farm worker	
All unskilled laborers	2
Coal miner	
Night watchman	
Janitorial-building superintendent	
Elevator operator	
Freight handler	
Nurse's aide	
Laundry worker	
Newsboy	
Soda clerk	
Peddler	
Grinder-tool, etc.	
Odd job worker	1
Share cropper-migratory worker	
Scrub woman	
Garbage collector	
Street sweeper	
Shoe shiner	

2. Occupational categories have been grouped into clusters; each has a prestige rating. Assign a rating to each child based on the occupation of main support of his family. For example, U.S. Supreme Court Justice is rated "10". Milk Route Man is rated "3". This number will be the occupation rating of each child.

3. Similarly, the education level of the head of the child's family is to be rated.

4. The following table specifies the ratings to be assigned for level of education of the main support in the child's family.

EDUCATION	RATING
0-4 years	1
5-6 years	2

EDUCATION	RATING
7-8 years	3
Some high school	4
High school graduate	5
Some college	6
College graduate	7
Post graduate or professional training	8

5. You now have two (2) ratings for each child. On the basis of these two ratings (occupation and education) you can now derive an estimated SES rating for each child as follows:

6. Referring to the table below:

SES CONVERSION TABLE

		Education of Main Support							
		1	2	3	4	5	6	7	8
Occupation of Main Support	1	1	1	1	1	1	11	11	11
	2	1	1	1	1	11	11	11	11
	3	1	1	1	1	11	11	111	111
	4	1	1	1	11	11	111	111	111
	5	1	1	1	11	11	111	111	111
	6	1	1	11	11	111	111	111	111
	7	1	11	11	111	111	111	111	111
	8	11	11	11	111	111	111	111	111
	9	11	11	111	111	111	111	111	111
	10	11	11	111	111	111	111	111	111

1. locate the occupation rating of main support for a given child on the left hand side of the figure;
2. locate the education of main support for a given child across the top of the figure;
3. find the coordinate of these two by bringing your finger down to the point where they both meet. You will find that they meet in a box numbered I, II or III. This numerical value is the overall SES rating for the subject.

APPENDIX C

Grice's Generalized Scale to Measure Attitudes Toward Defined Groups

Forms A and B of Grice's (1934)

Generalized Scale to Measure Attitudes Toward Defined Groups

Copyright by Purdue University
Research Foundation, Lafayette, Ind.

* Items marked with an asterisk are those used by the writer to develop the 17 item version of the same scale.

FORM A

	Scale Value		
*	10.9	1	Show a high rate of efficiency in anything they attempt
*	10.2	2	Can be depended upon as being honest
	10.0	3	Are mentally strong
	9.9	4	Are fine people
	9.8	5	Are very patriotic
*	9.5	6	Are far above my own group
	9.3	7	Are noted for their industry
	9.2	8	Some of our best citizens are descendants from this group
	9.0	9	Are a tactful group of people
	8.9	10	Deserve much consideration from the rest of the world
*	8.8	11	I would be willing to trust these people
	8.7	12	Should be permitted to intermarry with any other group
	8.5	13	Command the respect of any group
*	8.4	14	Are generous to others
	8.2	15	Are of a self-sacrificing nature
*	8.1	16	Are quick to apprehend

	8.0	17	Should be permitted to enter this country as immigrants
	7.9	18	Are good mixers
	7.7	19	Are a God-fearing group
	6.8	20	Have an air of dignity about them
	6.0	21	Are highly emotional
*	5.8	22	Take an exceptional pride in themselves
	4.6	23	Are superstitious
	4.4	24	Are fond of display
	4.2	25	Are unimaginative
	3.6	26	Are self-indulgent
	3.2	27	So far as I am concerned this group can stay in their native country
	3.1	28	Do not impress me favorably
	3.0	29	Are frivolous
*	2.8	30	Are extravagant with their means
	2.5	31	I am not in sympathy with these people
	2.4	32	Tend to lower the standards of living of their neighbors
	2.3	33	Are tactless
	2.2	34	Would likely prove disloyal to our government
	1.9	35	Are despised by the better groups
	1.8	36	Have many undesirable traits
	1.6	37	Belong to a low social level
	1.5	38	Have nothing about them that I admire
	1.4	39	Should not be permitted to associate with other groups
	1.3	40	Should not be permitted to enter this country
	1.2	41	All members of this group should be deported from this country

	1.0	42	Are mentally defective
*	0.9	43	Respect only brute force
	0.8	44	I hate anyone belonging to this group
	0.7	45	Are our worst citizens
	0.4	46	Are inferior in every way to the rest of the world

FORM B

	Scale Values		
	10.5	1	Are the finest in the world
	10.2	2	Are honest
	10.0	3	Are the most desirable class of immigrants
		4	Have an ideal home life
	9.8	5	Have high standards of living
	9.5	6	Tend to improve any group with which they come in contact
	9.3	7	Are superior in every way to the rest of the world
*	9.2	8	I consider it a privilege to associate with the group
*	9.0	9	Have an unusual ability for leadership
	8.9	10	Are on a level with my own group
	8.8	11	The world is better off by having these people in it
	8.7	12	Are sincere in their actions
	8.5	13	Are religiously inclined
	8.4	14	Are sociable
	8.2	15	The higher class of this group are superior to us
*	8.1	16	Are considerate of others

	8.0	17	Are courageous in wars
	7.9	18	Are sympathetic of others
	7.7	19	Can be resourceful when necessary
	6.8	20	Should be regarded as any other group
	6.1	21	Are equal in intelligence to the average person
	5.4	22	I have no particular love or hatred for this group
	4.5	23	Are of a gregarious nature
*	4.4	24	Have a great love of power
	4.2	25	Are stingy
	3.6	26	I suppose these people are all right, but I've never liked them
	3.3	27	Must imitate others to succeed
	3.1	28	Have a tendency toward insubordination
	3.0	29	Will not bear acquaintance
*	2.7	30	Are always suspicious of others
*	2.5	31	Are envious of others
	2.4	32	Have a tendency to fight
	2.3	33	Must undergo many years of civilization before they may be said to have reached our own level
	2.2	34	Are discourteous
	1.9	35	Are sluggish in action
	1.8	36	Are unreasonable in their attitude toward other groups
*	1.6	37	Are slow and unimaginative
	1.5	38	Are disorderly in conduct
	1.4	39	I do not see how anyone can be fond of this group
	1.3	40	Are a necessary evil to be endured
	1.2	41	Are generally sly and deceitful
	1.0	42	Are the most despicable people in the world

	0.9	43	We should cultivate a national hatred for these people
*	0.8	44	Cannot be trusted
	0.7	45	Are the least respected people in the world
	0.4	46	Are inferior in every way to the rest of the world

Scale values range from 0.4 to 10.9 (on form A) and from 0.4 to 10.5 (on form B). The mean or indifference point for both scales is 5.65 (form A) and 5.45 (form B) or 6 for both scales, if the scale values may be perceived as ranging from 1 to 11.

In using the scale, the respondent is asked to check each item with which he agrees. His score is the median of the scale value of all the items endorsed by him as "agree". A high scale value indicates a favorable attitude, whereas a low scale value measures an unfavorable attitude toward the race or nationality in question.

APPENDIX D

Scoring Keys for Racial Attitudes Forms X and Y

Key for Form X

Attitude	Question	Value	Corresponding # on form A & B
Pos.	1=	10.9	1 on A
Neg.	2=	1.0	37 on B
Pos.	3=	5.8	22 on A
Neg.	4=	4.4	24 on B
Pos.	5=	10.2	2 on A
Neg.	6=	2.5	31 on B
Pos.	7=	9.5	6 on A
Neg.	8=	0.9	43 on A
Pos.	9=	9.2	8 on B
Neg.	10=	2.7	30 on B
Pos.	11=	9.0	9 on B
Neg.	12=	0.8	44 on B
Pos.	13=	8.1	16 on A
Pos.	14=	8.3	16 on B
Neg.	15=	2.8	30 on A
Pos.	16=	8.5	14 on A
Pos.	17=	8.8	11 on A

Key for Form Y

Attitude	Question	Value	Corresponding # on form A & B
Pos.	1	= 10.9	1 on A
Neg.	2	= 2.7	30 on B
Pos.	3	= 10.2	2 on A
Neg.	4	= 4.4	24 on B
Neg.	5	= 2.5	31 on B
Pos.	6	= 5.8	22 on A
Pos.	7	= 9.0	9 on B
Neg.	8	= 0.8	44 on B
Pos.	9	= 8.1	16 on A
Neg.	10	= 2.8	30 on A
Pos.	11	= 9.5	6 on A
Neg.	12	= 0.9	43 on A
Pos.	13	= 9.2	8 on B
Pos.	14	= 8.3	16 on B
Pos.	15	= 8.8	11 on A
Neg.	16	= 1.0	37 on B
Pos.	17	= 10.9	14 on A

APPENDIX E

Procedures for Code Test Administration

CODING B

For Subjects* 8 and older - regardless of estimated mental ability

Directions -- Say look at these divided boxes or squares pointing to the Key. Notice that each has a number on the upper part and a mark on the lower part. Every number has a different mark. Now look here pointing to the Sample where the boxes have numbers, but the squares beneath have no marks. I want you to put in each of these squares pointing to the seven Sample boxes the marks that should go there like this.

Illustrate by pointing to the Key and then to the Sample, saying Here is a 2, so put in this mark writing in the symbol. Here is a 1, so you put in this mark. This is a 4, so you put in this mark. After marking the first three Sample items, say Now you do it. If the Subject does not grasp the task, help him with more items until the seven sample items have been filled in.

After this demonstration, say Now begin here and fill in as many squares as you can without skipping any. Keep working until I tell you to stop. Go ahead. Begin timing. If the Subject starts to omit squares or do only one type of figure, say Do them in order.

Timing -- 120 seconds.

Scoring -- 1 point for each square filled in correctly. The seven Sample items are not included in the Subject's score.

Maximum score -- 93 points.

---

*Special directions for left-handed Subjects: Place a second record form before the Subject folded so the relevant code (A or B) is showing, since a left-handed Subject often covers the code with his hand when writing on the record form.

APPENDIX F

Instructions for Anagrams Test Administration

Directions for Anagrams

Now we are going to do something called Anagrams. Some of you may have done this before, but, if you haven't let us tell you about it. We are going to show you a word, and you are to make as many new words as you can with the letters that appear in the word that we will show you. You don't have to use all the letters each time. But you can only use a letter as many times as it appears in the word we will show you. You have to make up real words, like the ones you find in the dictionary.

Illustrate by writing the word on the blackboard and showing how it works. Use the word RESOURCEFUL. Write the words "SURE, SOURCE, FOR, OUR, SOUR, USE". Explain that there are many more words that can be constructed from the word (resourceful).

After this demonstration, instruct the students to open their booklets and to construct as many words as they can from the letters in the word, CRYSTALLIZATION. Tell the students that it is important to work as fast as they can, but say, keep working until we tell you to stop.

Timing -- 8 minutes

Scoring -- 1 point for each correctly spelled word constructed, except for foreign words and proper names. Only words found in a standard dictionary are acceptable.

Maximum number of points on this particular task -- 50.

APPENDIX G

Procedures for Verbal Recall Test Administration and Verbal Recall Test

We are going to tell you a story. We want you to listen carefully becasue we are going to ask you some questions about it. The name of the story is:

The Party Before Summer Vacation

It was four o'clock in the afternoon. Everyone was holding up the gym walls. Very little talking and no dancing was going on. Sonny and his ideas! Who's ever heard of a party in the daytime? And just think, everyone paid 25¢ to get in. Mr. Wheeler, the principal, looked around the room and shook his head. The students were doing nothing. Suddenly Herbie and the boys from Grant Street came in with the latest tunes. They were Sonny's main boys. The music changed. People started to get down. The principal looked around the room and smiled. Herbie danced with Sherry and Ronny danced with Judy. Sonny stood at the refreshment table and fixed two glasses of punch; one for himself and the other for Leslie who was across the room. The dance went on until the bell rang at 6:30. They had 10 minutes to clear the building. Sonny walked over to where Leslie was standing and gave her the punch. He had been watching Leslie all afternoon and hadn't danced. Leslie had planned to walk home alone. Sonny only lived two blocks from the school, but offered to walk Leslie home which was five blocks out of his way. Sonny got some play! It was a hip way to end the semester for summer vacation.

1. What is the name of this story?
2. What time was the party?
3. Where was it held?
4. What was the principals name?
5. Why did the principal shake his head?
6. When did the music change?
7. Where did Sonny's main boys live?
8. How much did the party cost?
9. How did the principal act when the music changed?
10. Ronny danced with who?
11. When the party got started, where was Sonny?

12. What happened at 6:30 to end the dance?
13. Where did Sonny go after the party?
14. What season of the year was it?
15. How far from the school did Sonny live?
16. How far out of his way did Sonny walk after the party?
17. Who did Sonny walk home?

APPENDIX H

Modified Directions for Digit Span Test Administration
and Modified Digit Span Test

Modified Digit Span: Directions (Digits Forward) and Test

Directions -- Say, we are going to say some numbers. Listen carefully, and when we are through, write them down in the order in which we have said them. Please do not start writing until we have finished saying the digits. The digits should be given at the rate of one per second. All subjects should be started with the 3-digit series.

Experimenters should keep a careful watch to make sure that subjects do not write the digits before the person giving the digits has finished saying them.

Scoring is the highest number of digits repeated without error on either trial. Thus, if the highest number of digits correctly repeated by a subject is five digits forward, his score is 5.

Maximum score -- 9 points.

Digits Forward

Series	Trial I	Trial II
(3)	3-8-6	6-1-2
(4)	3-4-1-7	6-1-5-8
(5)	8-4-2-3-9	5-2-1-8-6
(6)	3-8-9-1-7-4	7-9-6-4-8-3
(7)	5-1-7-4-2-3-8	9-8-5-2-1-6-3
(8)	1-6-4-5-9-7-6-3	2-9-7-6-3-1-5-4
(9)	5-3-8-7-1-2-4-6-9	4-2-6-9-1-7-8-3-5

APPENDIX I

I. Code Test Answer Sheet

II. Anagrams Test and Answer Sheet

III. Verbal Recall Test Answer Sheet

IV. Digit Span Test Answer Sheet

V. Code Test Answer Sheet (filler)

PLEASE PRINT YOUR NAME AND HOMEROOM NUMBER



FIRST NAME

MIDDLE INITIAL

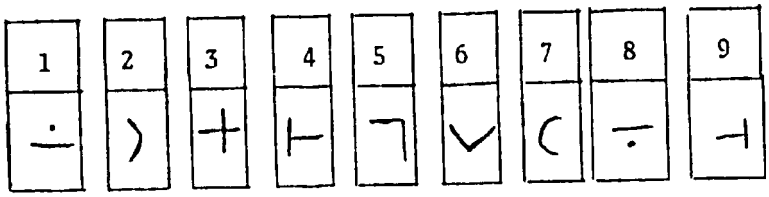
LAST NAME



HOMEROOM NUMBER

DO NOT OPEN UNTIL TOLD TO DO SO.

CODING B



SAMPLE

2	1	4	6	3	5	2	1	3	4	2	1	3	1	2	3	1	4	2	6	

3	1	2	5	1	3	1	5	4	2	7	4	6	9	2	5	8	4	7	6	

1	8	7	5	4	8	6	9	4	3	1	8	2	9	7	6	2	5	4	7	

3	6	8	5	9	4	1	6	8	9	3	7	5	1	4	9	1	5	8	7	

6	9	7	6	2	4	8	3	5	6	7	1	9	4	3	6	2	4	9	3	

Construct as many words as you can from this word.

CRYSTALLIZATION

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____
31. _____
32. _____
33. _____
34. _____
35. _____
36. _____
37. _____
38. _____
39. _____
40. _____
41. _____
42. _____
43. _____
44. _____
45. _____
46. _____
47. _____
48. _____
49. _____
50. _____

SCORE: _____

ANSWER SHEET FOR THE STORY

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

SCORE: _____

D.S.

1st Trial

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

SCORE: _____

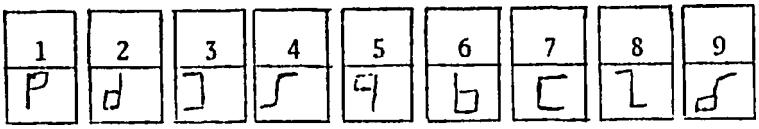
2nd Trial

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

SCORE: _____

SCORE: _____

CODING C



9	7	6	2	1	3	8	4	7	2	9	1	5	9	8	4	3	6	2	7

9	1	8	6	3	1	4	3	9	2	7	5	8	3	6	1	9	8	2	5

4	9	1	8	3	1	6	9	7	2	7	4	8	1	5	9	2	6	1	3

2	6	9	1	8	4	7	2	9	4	3	6	8	1	5	4	7	2	6	9

8	1	5	3	2	5	9	6	4	7	3	8	2	6	4	9	3	5	1	8

APPENDIX J

Analysis of Variance Source Tables

TABLE 10

ANALYSIS OF VARIANCE SOURCE TABLE FOR CODE TEST SCORES

SOURCE	SS	df	MS	F
Race (R)	49.00	1	49.00	.38
Self-concept (SC)	43.34	1	43.34	.33
Racial Attitude (A)	1111.11	1	1111.11	8.63**
R X SC	684.69	1	684.69	5.32*
R X A	0.34	1	0.34	0.00
SC X A	7253.36	1	7253.36	56.39***
R X SC X A	680.34	1	680.34	5.29*
Within	17492.47	136	128.62	
Total	27314.65	144	189.68	

*$p < .05$
**$p < .01$
***$p < .001$

TABLE 11

ANALYSIS OF VARIANCE SOURCE TABLE FOR
ANAGRAMS TEST SCORES

SOURCE	SS	df	MS	F
Race (R)	4.00	1	4.00	.28
Self-concept (SC)	4.00	1	4.00	.28
Racial Attitude (A)	0.69	1	0.69	0.00
R X SC	0.69	1	0.69	0.00
R X A	245.44	1	245.44	17.59***
SC X A	9.00	1	9.00	.64
R X SC X A	2.25	1	2.25	.16
Within	1897.22	136	13.95	
Total	2163.30	144	15.02	

***$p < .001$

TABLE 12

ANALYSIS OF VARIANCE SOURCE TABLE FOR VERBAL RECALL TEST SCORES

SOURCE	SS	df	MS	F
Race (R)	31.64	1	31.64	.51
Self-concept (SC)	5.64	1	5.64	.09
Racial Attitude (A)	0.50	1	0.50	0.00
R X SC	643.89	1	643.89	10.38**
R X A	213.89	1	213.89	3.44
SC X A	244.14	1	244.14	3.93*
R X SC X A	51.96	1	51.96	.83
Within	8435.56	136	62.02	
Total	9627.22	144	66.85	

*$p < .05$

**$p < .01$

TABLE 13

ANALYSIS OF VARIANCE SOURCE TABLE FOR
DIGIT SPAN TEST SCORES

SOURCE	SS	df	MS	F
Race (R)	0.34	1	0.34	.13
Self-concept (SC)	10.56	1	10.56	4.10*
Racial Attitude (A)	5.06	1	5.06	1.76
R X SC	1.56	1	1.56	.60
R X A	79.50	1	79.50	30.93***
SC X A	248.06	1	248.06	96.49***
R X SC X A	0.17	1	0.17	.06
Within	350.72	136	2.57	
Total	695.97	144	4.83	

*$p < .05$
***$p < .001$

APPENDIX K

Tables for Mean Tests Scores

14. Means of Tests Scores Across the Four Tests, Experimenter Race (R), and Level of Self-concept (S)

15. Means and Standard Deviations of Tests Scores Across Race of Experimenter, Self-concept, Racial Attitudes on Performance Tests.

TABLE 14

MEANS OF TESTS SCORES ACROSS THE FOUR TESTS, EXPERIMENTER RACE (R) AND LEVEL OF SELF-CONCEPT (S)

Tests		White	Black
Code	Low	45.9	42.7
	High	40.4	46.0
Anagrams	Low	9.1	9.5
	High	8.9	9.1
Verbal Recall	Low	8.7	13.9
	High	12.6	9.3
Digit Span	Low	6.1	6.2
	High	6.9	6.6

Note: N = 36 in each cell

TABLE 15

MEANS AND STANDARD DEVIATIONS OF TESTS SCORES ACROSS EXPERIMENTER RACE, LEVEL OF SELF-CONCEPT, RACIAL ATTITUDE AND PERFORMANCE TESTS

		White				Black			
Test		TW		TB		TW		TB	
	SC	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Code	Low	57.9	14.8	33.9	9.9	50.0	10.5	35.0	11.0
	High	33.9	9.9	47.0	13.9	43.9	7.7	48.1	11.6
Anagram	Low	10.6	2.9	7.6	3.1	8.7	3.5	7.5	3.9
	High	10.1	3.9	7.6	4.9	7.5	3.8	10.7	3.2
Verbal Recall	Low	11.9	3.4	5.6	2.5	13.5	3.0	7.4	2.4
	High	12.0	3.1	13.2	3.5	7.4	2.4	11.1	4.3
Digit Span	Low	8.4	.78	3.8	2.1	7.0	1.8	4.7	1.4
	High	6.5	1.9	7.3	1.6	4.7	1.7	8.4	.70

Note: N = 18 in each cell

APPENDIX L

Frequency Distribution of Racial Attitude Scores and Self-Esteem Scores for the Total Sample

TABLE 16

FREQUENCY DISTRIBUTION OF RACIAL ATTITUDE SCORES AND SELF-ESTEEM SCORES FOR TOTAL SAMPLE

Positive attitudes toward Blacks	Positive attitudes toward whites		
	High	Low	Total
Low Self-Esteem			
High	35	36	71
Low	38	73	111
High Self-esteem			
High	78	37	115
Low	37	17	54
Total			
High	173	73	186
Low	75	90	165

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