

A COMPARISON BETWEEN NEGRO AND WHITE  
COLLEGE STUDENTS ON SEVERAL  
PERSONALITY MEASURES

By

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## CHAPTER I

### THE PROBLEM

#### INTRODUCTION

Researchers and theoreticians in many behavioral disciplines have long been concerned with attempts to explain the differences in personality characteristics which seem to exist between races. Only recently have these differences been subject to controlled experimental investigation and, although a wealth of material exists, most of it is contradictory. The most frequent reasons for this conflict appear to be either in the experimental design itself or in inadequate definitions of the characteristics to be studied.

The majority of studies on race differences were done by comparing groups from two or more races. These comparisons were made on a particular psychological measure or measures and in many cases proved to be dealing with a specific rather than a random group. Results were affected, therefore, by selection and hence cannot be generalized. Moreover, a great number of variables such as the effect of differences in culture, socioeconomic status, education or some other social characteristics were not considered when comparisons were made.

After a large wave of criticism, another approach to attacking the problem was developed, namely that of "equating groups" on different



variables. In one of the earliest comprehensive reviews of the area however, Klineberg (1944) concluded that the problem of equating groups is probably one of the major stumbling blocks in the area of race differences. In concluding his review he said:

This survey of studies in the field of Negro personality has yielded few definite conclusions. The general difficulty which runs through all the investigations is mainly one of satisfactory equating of the groups to be studied, and the consequent impossibility of separating "racial" from accidental factors (p. 137).

In many of these studies, one variable or another was usually held constant; number of years in school or father's occupation were favored by many researchers. But as Anastasi (1958) pointed out, the groups were only superficially equated. After close examination one can see that the groups actually differ in many respects. In spite of continuous criticism, it seems that very little progress has been made to overcome the hurdles as is indicated in the most recent review by Pettigrew (1964 A):

Many studies on Negro American personality have floundered on the rocks of insufficient controls. . . . Our understanding of Negro personality has been held back less by the lack of energetic research than by a sparsity of rigorous techniques and designs styled for the problem (p. 10-11).

This study is an attempt to deal with some of the problems inherent in a design of studies of race differences by holding constant such factors as intelligence, socioeconomic level, age, sex, and urban and rural background. Differences between the two races in the areas of aggression, acquiescence, anxiety, ego-strength, and masculinity-femininity are factors which have stimulated much research and as a result have also engendered controversy. These are the factors on which this study is focused.

## Background of Problem

Interest in race differences emerged as early as interest in personality. Differences in external features and culture influences were the basis for numerous theories and hypotheses concerning differences between races.

Klineberg (1935) pointed out that the interest in race differences appears as early as the fifth century B. C. when Aristotle claimed that the Greek by nature fitted to rule the earth better than the Northern Europeans, who lack intelligence, or Asiatics, who lack spirit. Following Aristotle, a long list of writers from different races expressed themselves, each one proclaiming the superiority of his own race. Vitruvius, a writer on Roman architecture, described the Romans as being situated geographically in the best place and hence being the best people. Ibn Khaldun had the same claim for Arabians' superiority. Anastasi (1958) pointed out that similar claims were made for the French, the Anglo-Saxon, the "White" race as distinguished from the Nordics, the Alpines, the Mediterraneans and others.

Several opinions opposed to the claim of racial inequality were also voiced. One of them by John Stuart Mill who said:

"Of all the vulgar modes of escaping from the consideration of the effect of social and moral influences upon the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences."  
(Klineberg, 1935, p. 1.)

However, these few voices were almost lost among those claiming superiority of one race over another.

The idea of inequality of races has persisted throughout the centuries and most of the writers who treated the subject theoretically

were not necessarily psychologists. McDougall (1921), who can be considered as a representative of this group, said that there can be little doubt for believing in "great differences" in mental traits of races, and that these have probably persisted for thousands of generations. Yet he regarded differences of temperament as perhaps the clearest and most generally recognized.

Many theories of racial inequality have developed during the years. Those who have developed these theories can be divided into two main groups: those that believe in the multiple origin of human races and those who believe that man was originally one type and observed differences are the effects of environment. The first type of theories served well all the colonists and conquerors of the New World who required a rationalization for enslaving people in occupied countries.

Of all race theorists, one of the most important is Count Arthur Joseph de Gobineau (1816-1882), who is regarded as the father of modern racial theories. According to him, the Black race represents passion and is the source of lyricism and artistic temperament (Klineberg, 1935).

Many theories regarding white man superiority followed de Gobineau. Most of them evolved in Europe, especially in Germany. Most were based on subjective impressions, Baur, Fischer and Lenz described Negroes as:

. . . lacking in foresight, not inclined to work hard in the present to provide for the future, influenced by the immediate impressions of the senses, vacillating between cheerful indifference and hopeless depression, poor in imagination and devoid of the power of mental creation. Their childish traits are conspicuous, especially their cruelty and lack of sympathy; their notorious lack of sexual control is due not so much to the exceptional strength of the sexual impulse as to a general

childish lack of the power of restraint. They have great oratorical ability, and their musical gifts are remarkable. Their organizational and political faculties are poorly developed, and they have never produced any kind of social structure worthy of comparison with those of Europe and Asia (Klineberg, 1935, p. 8-9).

Such theories reached a peak with the Nazi racial doctrines in World War II.

Several studies (McGraw, 1931; Gilliland, 1951; Pasamanick and Knobloch, 1955) were based on these theories. Some dealt with the comparison of Negro and white infants on infant scales. The purpose of these studies was to prove Negroes' "inherent" intellectual inferiority. Many studies failed to account for differences in physical development and socioeconomic background between the groups.

Klineberg (1944) and Anastasi (1958) when writing on race differences point out the fact that this is one area of study where objectivity is lacking, since any discussion of race differences arouses strong emotions. It seems that racial prejudice colored many studies in racial psychology where so called objective tests were used.

## CHAPTER II

### REVIEW OF THE LITERATURE

The research interest in personality differences between Negroes and whites dates back to 1917-1918, shortly after personality tests were developed. Studies in this area have been reviewed continuously in the psychological literature, with the first extensive review being made by Woodworth in 1916, followed by Garth (1925), Klineberg (1944), Dreger and Miller (1960) culminated by Pettigrew's book (1964 B). The first two reviews dealt with intelligence tests, while those that followed dealt with both intelligence and personality tests.

This selective review of studies dealing with racial personality differences is divided into the following four sections. The first section deals with studies covering a wide range of personality traits. The second part is concerned with specific personality traits investigated in this experiment. In the third section, some theories pertinent to this study are presented, and the fourth section is devoted to the hypotheses of the investigation described herein.

#### Studies of General Personality Traits

Many white and Negro personality characteristics have been compared, among them, preferences for colors, musical ability, play habits, handwriting, gestures, social perceptions, impulse control, and introversion.

An early study in the area of reaction time (Bache, 1895) dealt with auditory, visual and electrical stimulation. Three small groups participated in the study: Whites, Negroes, and Indians. The experimenter concluded that Indians have the shortest reaction time, Negroes next, and whites have the longest reaction time.

One of the first tests used in racial comparisons was the Downey Will-Temperament Profile, an early character test. Downey devised the test to investigate a number of characteristics according to variations in handwriting and other aspects of behavior. McFadden and Dashiell (1923) used this test in a study comparing white and Negro high-school and college students from North Carolina. There were 38 high-school and 39 college students in each group. The authors concluded that in general, whites have a "greater force of personality"; more specifically, Negroes as compared to whites are quicker in making decisions and slightly more aggressive, but they are slower in movement than whites and offer less resistance to physical opposition. There have been many questions about the validity of this test. Porteus (1942) noted that as early as 1928 Uhrbrock questioned the validity of this test, and Klineberg (1944) suggested that McFadden and Dashiell's conclusions should not be taken seriously since the test has questionable reliability and validity.

A classic example of misinterpretation in racial comparisons is a study by Crane (1923). He believed that an answer to the question, "What is the psychological explanation of the impulsiveness and immorality which the Negro everywhere manifests?" can be found in a comparison of Negroes and whites in terms of their power of inhibition. In the experiment, a "guillotine" was constructed which could be

controlled so that it stopped a short distance above the board on which the subject's hand rested. Electric shock was administered to subjects when weight fell. One hundred subjects of each Negroes and whites were used, equally divided between the sexes. Although Crane stated that his subjects were from different social groups, it is clear there was a difference between the white and Negro groups, (for example, 36 skilled laborers out of 50 white males as compared with three skilled in the Negro group.) The number of withdrawals for Negroes and whites was equal. Crane's bias appeared in his explanation of his findings as follows:

due to the fact that both the drive and the volitional factors in the case of the Negro were operating on lower planes than in the case of the white, -- the two factors being lowered to almost functionally equal degrees, with the result that these differences tended to offset each other so far as the withdrawal score is concerned (p. 52).

He deduced from this that in a critical situation Negroes will first be very disturbed and then calm, whereas whites more controlled at first but will remain disturbed longer. The bias of the investigator, lack of comparability of the two groups, questionable interpretation of the results, and the questionable validity of the test, illustrate biases and errors in research on racial differences.

One of the first scientific approaches to the question of personality differences was made by Patrick and Sims (1934), using the Bernreuter Personality Inventory. This personality inventory permits analysis of the questionnaire according to neurotic tendency, introversion, self-sufficiency and dominance. The subjects in this study were 204 whites and 177 Negroes from an all white and all Negro university both in Ohio and in Alabama. There was no control for possible socioeconomic

differences between the groups. The investigators reported that the only significant difference between the groups was that the white males tended more toward introversion. There also was a tendency on the part of Negro males to be somewhat more dominant and self-sufficient; and for Negro females to be more dominant but less neurotic as compared with white females. In their review of literature, Patrick and Sims noted that none of the studies reported in the literature revealed consistent differences in personality between Negroes and whites. In their final conclusions they said:

Many studies show that Negroes tend more toward dominance and aggressiveness than whites but that they are lacking in persistent deliberation. Several studies have shown that racial prejudices do exist between Negroes and whites. It might be inferred that these prejudices, if expressed in conduct toward the Negro, would tend to create a social environment which would influence the development of his personality. Our present study, however, does not reveal any pronounced influence of those prejudices (p. 198).

Another study using the Bernreuter Personality Inventory was reported by Eagleson (1938). Subjects were 100 white and 100 Negro college girls. No differences in introversion were found but he did report significant superiority of Negro females in self-sufficiency. In this study, as in many others, there is no mention of control over socioeconomic background, intelligence, and urban-rural differences.

Summarizing several early personality studies, Klineberg (1944) concluded: "The specific differences in introversion are suggestive but have not been completely demonstrated" (p. 107).

In 1938 The American Youth Commission conducted extensive studies on the problems of Negro youth. The project, carried on over a period of three years, resulted in four volumes on the personality development of Negroes, which have become classics. They are:



Children of Bondage: The Personality Development of Negro Youth  
in the Urban South. A. Davis and J. Dollard

Negro Youth at the Crossways: Their Personality Development in the  
Middle States. E. F. Frazier

Growing Up in the Black Belt: Negro Youth in the Rural South.  
C. S. Johnson

Color and Human Nature: Negro Personality Development in a Northern  
City. W. L. Warner, B. H. Junker, and W. A. Adams

These intensive studies covered Negroes in the North, Middle states and South, both rural and urban communities, including boys and girls from different educational levels and different social classes. Various methods of studying the Negro youth had been employed: sociological life histories, interviews, questionnaires, intelligence tests, social attitude tests, detailed socio-psychiatric case studies and ecological and cultural analyses of the community setting.

The main findings and conclusions were summarized by Robert L. Sutherland in his book Color, Class and Personality (1942). One of the main points emphasized repeatedly in the conclusion of these reports is that:

Within the Negro society, "standards" of behavior differ radically according to social classes. The resulting differences in the training of the child and adolescent are so great that one cannot speak of "the problems" or "the characteristics" of "the Negro child." One must speak first in terms of the social class training of the child, and only secondarily of his caste training (p. 65-66).

This has been emphasized by Klineberg in his review of studies (1944). Several other authorities also have called attention to the fact that investigators might be dealing with comparisons of different social groups whenever they compare Negro and white groups. This is indicated repeatedly as being one of the major problems in white-Negro comparison studies.

Most authorities in the area of race differences point to the fact

that the Negro in America is usually regarded by whites as highly emotional and expressive, with relatively little control over his feelings and their manifestations. Davis (1943), in an extensive study of the American Negro child stated that a Negro child, who is accepted, not for himself, but merely because he is a Negro might be expected to react with symptoms of aggressiveness, exhibitionism, or submissiveness. Negro children revealed most vividly and often the feelings of insecurity resulting from anticipated rejection or insult from white children. It seems, however, that most of these characteristics are typical of the lower class in general and not only of Negroes.

Karon (1958) compared Negroes and whites in order to find out if caste sanctions have any effect on Negroes. His subjects were selected from 1,500 ninth grade students. The groups compared were Northern whites and Northern and Southern Negroes. He administered to the groups the Picture Arrangement Test that was developed by Tomkins and Horn (1957). Karon reported differences that, according to him, indicated actual possession of and simultaneous denial of aggression. He also stated that in studying the problems among adolescent and adult members of a minority group, one must only look for the direct signs and symptoms of personality distortion such as are clearly observable in children, but also realize that these symptoms at the older age levels may be expressed in forms apparently unrelated to the racial problem. The consequences of prejudice and segregation for the personality continue with increasing complexity from childhood through adolescence as part of the development of the total personality.

Frank Auld Jr. (1952) reviewed experiments in the area of personality research in order to evaluate influences of social class on

personality test responses in these studies and concluded that lower-class subjects differ in their responses to some personality tests (e.g., questionnaire, Rorschach, TAT) from middle-class subjects. In studies where these two social classes were compared, middle-class subjects have given more responses considered favorable in terms of the tests in comparison to lower-class subjects. He also reported the differences are larger when "social" rather than "economic" measures of social status are used, and when the subjects have a considerable spread in social status.

In a recent review of comparative studies of Negroes and whites, Dreger and Miller (1960) concluded:

So-called "personality tests" may be inappropriate for testing most Negroes who are different from whites in socioeconomic status (p. 381).

This indicates that the personality differences might be confounded with socioeconomic differences.

In addition to the problem of having social class differences, it has been pointed out by researchers in the area that, the variable of intelligence has also been confounded in a great number of studies.

Trumbull (1953) studied the relationships between factors of personality and intelligence using 92 high school boys and girls and 87 college women. He used the Chicago Test of Primary Mental Abilities and two personality tests, the Minnesota Multiphasic Personality Inventory and that developed by Guilford and Martin through a factorial analysis technique. He found statistically significant relationships between factors of intelligence and factors of personality, among them were relationship between femininity and verbal ability, ascendancy and better performance on factors of intelligence at high school level.

These relationships did not seem to hold throughout the age groups or between sexes. Roen (1960) studied the problem of personality and Negro-white intelligence. A group of 500 soldiers were tested by the Army Classification Battery (ACB), California Test of Personality, Taylor Manifest Anxiety Scale, and the Bernreuter Personality Inventory. Then, 50 white soldiers were matched with 50 Negro soldiers on ten variables, such as: parents' income, marital status, education level. Roen's major hypothesis was that personality variables would correlate higher with intelligence test scores in Negroes than they would in whites, since the

Negroes' socioeconomic exclusion, lack of historical achievement and erratic family ties, negatively influence the emergence of their personality. These psychological experiences are strongly related to the Negro's intellectual potentials (p. 148).

His hypothesis was confirmed.

Grossack (1957), in an attempt to overcome the problem of social desirability (the tendency of subjects to give socially desirable responses to personality inventories) in experiments where racial differences are involved, administered the Edwards Personal Preference Schedule (EPPS) to 63 male and 108 female Negro students from the South, and compared their responses with the standardization group. The Negro was described as "predominantly middle-class in outlook, but not in social origin." He found

. . . Significant differences between Negro males and standardization group males, and Negro females and standardization group females in many personality variables (p. 131).

The standardization group males scored significantly higher than the Negro males on exhibitionism, autonomy (need to be independent of others in making decisions), affiliation (need to be loyal to friends),

dominance and heterosexuality. The Negro males scored higher on deference (need to follow a superior), order, abasement (need to accept blame when things do not go right), and endurance. Negro females tended to score highest in change, intraception (need for imaginative, subjective human outlook) and abasement, and lowest in heterosexuality, succorance (need to extend aid), exhibitionism and autonomy.

Pettigrew (1964 A) argued that Grossack actually compared groups that are different in socioeconomic level and in educational level, as his group was from the South, whereas the standardization group was from the North.

Brazziel (1964), administered the EPPS to two groups of Negro college students, 140 subjects from the lower South and 122 subjects from the upper South. He found that need structure for both groups combined, was significantly different from the white norms. The authors speculated that the areas that were most effected were those calling for interpersonal relationship with others in an ascendance, or submission pattern. However, Brazziel noted that middle-income students from urban areas in the upper-South were less affected than were lower-South students in most categories.

A comparison of Negroes and whites on the MMPI test was reported by Hokanson and Calden (1960) who found that Negroes in their sample scored significantly higher on the Pd, Mf, Sc, Ma, L and F scales. Subjects were 84 whites and 34 Negroes, male tuberculosis patients from a VA hospital in Wisconsin. The groups were equalized for average age and occupation. Both groups came predominantly from Northern, working-class setting. The investigators conclude that:

Negroes tend to show less concern over conventional social mores;

demonstrate a greater emotional vigor and buoyancy; are more prone to act on their ideas and impulses; manifest more of what are considered to be bizarre or unusual thoughts and behavior; and exhibit a more feminine pattern of interests (p. 32-33).

In a recent study, comparing Rorschach responses made by Negro and white college students, Weatherly, Corke and McCary (1964) failed to find any statistically significant differences between the two groups. They hypothesized that differences between the two groups are diminishing since earlier studies with the Rorschach (Hunter, 1937; Stainbrook and Siegel, 1944) did indicate differences.

Pettigrew (1964 B) suggested that

✓ . . . the Negro's own protests and assertion of civil rights, his increasing educational and economic opportunities, the findings of social science, and the emergence of proud new African nations all have salved the wounds and helped in changing the Negro's self-image (p. 10).

#### Studies of Specific Personality Traits

##### I. Anxiety

Researchers have noted that discrimination has resulted in Negroes tending to be more sensitive in social situations for fear of being rejected. This extreme sensitivity is very often accompanied by what has variously been called cautiousness, fear, anxiety and hyperactivity.

Kardiner and Ovesey (1951) studied 25 Negro subjects in Harlem by means of psychanalytic interviews, Rorschach and TAT, and concluded that the direct effects of discrimination against the Negro are shown in his low self-esteem and anger at the way he is treated. Both Kardiner and Ovesey feel that the above constructs lead to fear and anxiety which may be manifested in what they called self-abnegation, caution and apologetic behavior.

A high degree of anxiety in Negro subjects as measured by anxiety scales is indicated in a large number of studies. In two separate questionnaire studies in which the MMPI was used, Caldwell (1959) and Hokanson and Calden (1960) have reported that Negro males scored considerably higher as a group than comparable whites on manic behavior (Ma scale of the MMPI) indicating the Negroes' tendency toward anxiety and hyperactivity.

As is true with most personality characteristics in interracial personality experiments, so it is with anxiety, contradictory results to those reported above were also reported. Stainbrook and Siegal (1944) administered the "group Rorschach" (1) to 80 Negro and white high school and 90 Negro and white college students from the South. From the Rorschach scores the authors concluded that high school Negro youth are more emotionally stable and less impulsive than white high school youth and possess less anxiety. The Negro college students, however, demonstrated less emotional stability than the white college group on this Rorschach scale.

The majority of studies report higher scores on anxiety scales for Negro subjects as compared with white subjects. However, there is some evidence to the contrary.

## II. Acquiescence

Acquiescence is generally defined as passive compliance. In psychological tests, however, it is manifested by a tendency to agree with items by marking them "true," "yes," and the like.

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(1) Stainbrook and Siegal did not clearly indicate which group Rorschach was used.



Most psychologists today argue that acquiescence is not a personality variable. They seem to agree, however, with the review of response style by Jackson and Messick (1958) and by McGee (1962a, 1962b), that acquiescence is related to personality variables. In this review, the authors maintain that persons with certain personality traits have a greater tendency to acquiescence than persons without these traits.

Several investigators attempted to relate acquiescence to other personality variables. Couch and Keniston (1960) related acquiescence to "Impulsivity, Dependency, Anxiety, Mania, Anal preoccupation, and Anal resentment" (p. 173). Adorno, et al., (1950) concluded that measured acquiescence is one of the family of traits included in authoritarianism (California F scale). Others are: lack of self-confidence, weak ego-strength, and high dependency upon authority as was indicated by the TAT and interviews.

Most studies suggest that Negroes are more suggestible and resort to passive acquiescence. Young (1929) in Louisiana and Hurlock (1930) in New York City studied differences in experimentally defined suggestibility between Negro and white school children and found that Negroes were much more suggestible. This however, was contradicted by Cooper (1929) who used Allport's Ascendance-Submission Reaction Study with 56 Negro college students. He found means and medians similar to Allport's norms. The Negro was not found by Cooper to be submissive. Kardiner and Ovesey (1951) from analysis of 25 cases suggested that Negroes tend to be passive, submissive, and resigned to dangers and insecurities, all rather loosely defined by the authors. This study is one of the most quoted in the literature. The Negro's defenses, they



claim, are so rigid that he cannot allow himself the luxury of ordinary rage even when he is in pain. Johnson (1957) showed that when answering a race relations questionnaire, 77 percent of 100 Negro youth in Upstate New York agreed that when a business place refused them service they should leave without causing any trouble.

Grossack (1957) found Negroes in the South scored high on deference (EPPS), which he felt supported the idea that the Negro, especially in the South, often must hide his personal resentment and play the part of a submissive, acquiescent, inferior, docile and obedient person. Hence, acquiescence can serve as a defense for aggressive and hostile feelings resulting from frustration.

Pettigrew (1964 B) interpreted these findings as indicating a desire to be accepted in the larger society combined with a highly developed readiness to withdraw passively if confronted by rejection and humiliation. He claimed that Negroes have developed a mask of passive acquiescence when confronted with whites.

From several of the above, it seems that acquiescence variously defined, has been developed by Negroes as a means for adjusting to the environment.

### III. Masculinity-Femininity

Many studies have pointed to the fact that employment discrimination made it more difficult for the poorly educated Negro male to secure steady employment than for the poorly educated Negro female. (The female will probably be able to obtain a job as a domestic, if nothing else is available). When the unskilled Negro male does manage to secure

a job, it is usually an occupation that pays barely enough to support himself, much less a family. Thus the pattern of a mother-centered family is maintained, and for the male problems arise in regard to his sex identity. Kardiner and Ovesey (1951) analyzed the difficulties a Negro male brought up in a mother-centered home has in adopting a masculine role. The authors stated that the Negro usually becomes dependent and has serious personality difficulties and sexual disturbance.

Many investigators state relatively high percentage of Negro children are brought up in a disorganized home, without a father. Many researchers have demonstrated the effect of an absent father on personality development. Bach (1946), Sears, Pintler and Sears (1946), Sears (1951), Lynn and Sawrey (1959) have pointed out, that father deprived boys are, as they variously define the terms, markedly more immature, submissive, dependent, and effeminate than other boys, both in their overt behaviors and fantasies. Bandura and Walters (1959) and Mussen and Distler (1959) contended that as Negro children grow older, this passive behavior may continue but more typically it is vigorously overcompensated by exaggerated masculinity.

Hokanson and Calden (1960) found that Negro males scored higher on the femininity scale of the MMPI than did white males. Pettigrew (1964 B) suggested that a high score on dominance, found for Negro males in several experiments, is an overcompensatory reaction for their lowly role.

Family disorganization also seems to have its effect on the Negro female. Lott and Lott (1963), in a study of interests of high school students on the Allport-Vernon Study of Values Test, found sharper

differences between the sexes among white boys and girls than between the sexes among Negroes. More interests generally associated with males were revealed by Negro girls in comparison with white girls. Generalizing from the scale they felt that in father-absent homes it seems that Negro girls model themselves after their mothers and prepare to assume both male and female responsibilities.

It seems that the sexual life of Negroes is not free from conflict as many psychologists earlier believed. This is shown by Grossack (1957), who using the EPPS found lower scores on sex variable for both male and female Negroes.

The easy sex life described by Dollard (1937) in the Negro group is contradicted by the material presented by Kardiner and Ovesey (1951):

The most surprising fact about the sex life of the Negro -- of all classes -- lies in its marked deviation from the white stereotypes that exist on the subject. The Negro is hardly the abandoned sexual hedonist he is supposed to be. Quite the contrary, sex often seems relatively unimportant to him. The factors what weigh heavily to make this the case are uniformly bad relations with females on an emotional level (p. 69).

In sum, most studies report differences in masculinity-femininity interests between whites and Negroes. No account is given however, to socioeconomic differences between the groups and its possible effect on these interests.

#### IV. Ego-Strength

The ego-functioning of Negro and white has not been a subject for many studies. A few studies, however, have used the ego-strength scale of the MMPI together with other measures, or have made reference to the ego-functioning in the interpretation of their findings.

From their tests and interviews Kardiner and Ovesey (1951) re-

ported tendencies toward feeling worthless, inferior and guilty, among their Negro subjects. Grossack (1957) reported Negroes scoring higher on abasement as measured by the EPPS, when compared with the standardization group. Roen (1960) using The California Test of Personality and the Bernreuter Personality Inventory found self-confidence to be the only variable that significantly differentiated between the white and Negro groups, with the Negroes scoring in the direction of low self-confidence.

Steckler (1957), in an attempt to evaluate the Authoritarian Ideology in Negro college students used the California F, E, and politico-economic conservatism (PEC) scales and was able to demonstrate that middle-class Negro college students tend to accept most of the anti-Negro stereotypes and to agree with many of the anti-white statements. Their ideological position is somewhat contradictory, since on one hand they identify with white middle-class standards, yet on the other, they are critical of white people. This was interpreted by the investigator as an attempt by the middle-class Negro to identify with the white middle-class values and dissociate himself from other Negroes.

Two important factors have a damaging effect on the Negro's ego-strength: discrimination and family disorganization. Davis (1943), drawing on his experience with Negro children, noted that as a result of anticipated rejection by whites, Negro children felt "frustrated and insecure."

Again, from extensive studies using many experimental techniques Clark (1955) found that racial recognition in both white and Negro

children appears by the third year and rapidly sharpens each year thereafter. Karon (1958) using the Picture Arrangement Test (Tomkins and Horn, 1957), indicated that although the effects of prejudice, discrimination and segregation on the personality of adolescents and adults reflect the accumulation of childhood experiences, the later reactions are more indirect and complicated than are the concrete effects observed in children.

Milner (1953) maintained that full awareness of his social devaluation does not usually impinge on the Negro until early adolescence. How well the Negro bears up under this severe emotional stress, argues Milner, is a function of his ego-strength which he has developed in his earlier family-centered years. Thus, a warm supportive home can effectively compensate for many of the restrictions the Negro child faces outside of the ghetto. The type of home he enjoys, therefore, is most important in his ability to handle segregation. Unfortunately, a very high percentage of Negroes are brought up in homes that are far from favorable for a strong ego development. One can suggest that low social class, with lack of economic security and a high percentage of father-absent families, all might contribute to development of a weak ego.

#### V. Aggression

One of the personality characteristics most often attributed to Negroes is aggression. Hence many investigators have used this trait as the target for their research in the area of racial differences.

In 1923, McFadden and Dashiell, using the rather general Downey

Will-Temperament Profile in a comparison study, noted that the Negro group contained slightly more aggressive persons.<sup>(1)</sup> However, they overlooked, as did many other researchers, the fact that this group included a very high percentage of people of low socioeconomic level. They suggested it is possible that aggression is a characteristic of the low socioeconomic groups. Patrick and Sims (1934) in their review concluded that many studies show Negroes tend toward dominance and aggressiveness. Their study, however, in which the Bernreuter Personality Inventory was used, did not support these findings. Their results indicate that:

. . . the Negro in a Negro college situation answers the items in this personality Inventory in a similar fashion to the white student in his own college situation (p. 200).

Dollard, Doob, Miller and Sears (1939) postulated that a frustration-aggression hypothesis which states that all aggression is preceded by frustration means, in this case, that there is an enormous amount of potential aggression created by the frustrating situations in which Negroes find themselves trapped.

Aggressive resentment of discrimination by whites is openly expressed by Negroes in numerous ways. Davis and Dollard (1940) concluded that patterns of physical aggression are limited to the lower Negro classes. The authors stated that vicarious aggression and the tendency to make an excuse for color are to be found in all ranks of the Negro community.

In most field studies reported, findings indicate a "general" or

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<sup>(1)</sup> Aggression was probably determined by how hard subjects pushed down on the pencil.

freer, more aggressive type of behavior among lower class children than is characteristic of middle and upper class circles. Sutherland (1942) stated, however, that as children grow older, they meet a more rigid set of attitudes which makes interracial fighting a serious offense, punishable by law or by vigilant action. It causes Negroes to inhibit their aggressive behavior as they grow older. In addition to occasional outbursts in interracial relations, violence within their own society is not uncommon in the lower levels of Negro society.

In a study of 400 grade school children in Virginia, Hammer (1953) employed the House-Tree-Person test and found evidence of wide spread aggression and bitterness among the Negro children. This was possibly supported by Mussen's (1953) study in which another somewhat related projective test, the Murray TAT, was used. Subjects were 50 white and 50 Negro boys from lower-class New York City homes, of at least average intelligence, and between the ages of nine to fourteen, where age-matched. The author claimed that the whites told significantly more stories expressing "self-defensive aggression" while Negroes told stories with far more "emotional and verbal aggression."

Fortunately, there are sublimating alternatives in handling aggression which take the form of moving away from the frustrator or denying aggression, repressing or displacing it. Karon (1958) in an extensive study of the Negro personality, using the PAT, found denial of aggression in Negroes.

Powdermaker (1943) in her sociological essay based on previous psychoanalytic interviews of Negro children reported that the Negro is rarely able to express his hostility and aggressive impulses directly.

He therefore, has to adopt substitute or indirect forms of aggression such as diversion of aggression into witty and humorous observations on the racial status or of behavior of whites.

Several studies reported anti-Semitism among urban Negroes as a form of displaced aggression. It is a safer avenue for expression of anti-white feelings. Lincoln (1961) reported that the Black Muslims selected Jews, "the brain of the white race," for particular abuse.

In most studies the intelligence of the groups was overlooked when aggression was measured. McCary and Tracktir (1957) studied the relationship between intelligence and frustration-aggression patterns in Negroes and whites by using both the Rosenzweig Picture-Frustration test and the Otis Quick Scoring Test of Mental Ability. Subjects were 188 white and 87 Negro high school boys and girls from middle-class families in Pittsburgh, Pennsylvania. These experimenters reported no significant differences in aggressive reactions between high IQ Negro and white males. The low IQ Negro males, however, were more overtly aggressive, whereas, the low IQ white males were more self-blaming and conformed more closely to the group. No differences were noted in the middle IQ group.

It appears, from the above, that most investigators concluded that Negroes are more aggressive than whites. Only a few studies, however, reported that Negroes score higher than whites on scales measuring aggression. In studies where differences in aggression were not found, the authors argued that a defense mechanism is operating and, therefore higher aggression has not been demonstrated in scores on the tests. In other words, when what was expected was not found, some authors were



guilty of using weaker alternative explanations to substantiate their theories.

The following is a summary of some of the major studies presented in the preceding literature review.

### Theories

Several general theories of personality have been employed by different investigators in an attempt to explain some differences in personality between Negroes and whites.

The frustration-aggression hypothesis of Dollard, et al. (1939), has been used to explain Negroes' aggressive behavior. Negro racial discrimination is added to all other types of barriers. Hence, there is an enormous amount of potential aggression created by the many frustrating situations that the Negro finds himself in. Psychoanalytic theories have often been used to explain some characteristics of the Negro's personality. Among these the Oedipus complex and the various defense mechanisms received a large amount of attention.

Bastide (1950) employed the concept of the Oedipal complex to a large slave plantation and arrived at some speculations pertinent to the Negro's personality. He argued that slavery disrupted the slave's family pattern when he adopted the planter and his wife as parent-substitutes and played the dependent role of a child. This led to the Oedipal conflict with the desire for the mother-figure and rejection of the father-figure. To release tension and divert desire the slave had for his white wife, the planter encouraged the slaves to have a great deal of sexual liberty among themselves. This pattern, claimed

FIGURE 1

## SUMMARY OF MAJOR STUDIES IN NEGRO-WHITE PERSONALITY DIFFERENCES

Author(s)	Test	Subjects	Results	Comments
McFadden and Dashiell (1923)	Downy-Will Temperament Profile	N & W high-school and college students	Ns more aggressive	Validity of test questionable. No controls.
Crane (1923)	Guillotine, self-devised test	Ns. & Ws	No significant differences	No controls; biased interpretations; test validity questionable.
Patrick and Sims (1934)	Bernreuter Personality Inventory	N & W college students, Ohio & Ala.	W males tend more to introversion	No control for socioeconomic level
Eagleson (1938)	Bernreuter Personality Inventory	N & W college girls	Ns superior in self-sufficiency	No controls
Karon (1958)	Picture Arrangement Test	North & South 9th grade Ns & Ws	Aggression & denial of aggression in Ns	
Grossack (1957)	EPSS	South N college, W standardization group	Differences on most scales	Groups not equal in socioeconomic level
Brazziel (1964)	EPSS	Upper & lower South Ns; W standardization group	Ns differed on need structure	Controlled for socioeconomic level
Hokanson and Calden (1960)	MMPI	N & W Tuberculosis patients, VA hos. Wisc.	Ns higher on Pd, Mf, Sc, Ma, L, F scales	Controlled for age and occupation
Weatherly, Corke and McCary (1964)	Rorschach	N & W South college students	No significant differences between groups	
Kardiner and Ovesey (1951)	Rorschach, TAT, psychoanalytic interviews	N youth from Harlem, N.Y.	Low self-esteem; fear, anxiety	No W comparison group
Stainbrook and Siegel (1944)	Group Rorschach	South N & W high school & college students	High school Ns less impulsive & anxious; college Ns less emotional stable	
Roen (1960)	Calif. Test of Personality, Bernreuter Personality	N & W soldiers	Ns low in self-confidence	Controlled on 10 variables: age, sex, socioeconomic...
Steckler (1957)	Calif. Test of Personality, F, E, PEC scales	N & W college students	Ns identify with middle-class	
Hammer (1953)	House-Tree-Person	Virginia N & W grade school child.	Ns more aggressive	
Mussen (1953)	TAT	N & W low-class, 9-14 boys, N.Y.	Ns show more self-defensive aggression	Controlled for age, IQ, and socioeconomic level
Tracktir (1953)	Rosenzweig Picture Frustration Test	N & W high school boys, Pittsburgh	Low IQ Ns more overtly aggressive	
Lott and Lott (1963)	Allport-Vernon Study of Values	N & W high-school boys & girls	N girls have interests more associated with males	

Bastide, is the historical root for the sexual fears of white racists and the relatively free sexual patterns of some lower-class Negroes today.

Quite a few studies, reported in the preceding literature review, claim that Negroes tend to behave in a childish, passive way. However, there is at least as much evidence to the contrary, where Negroes are found highly aggressive. The same is true with regard to sexual patterns. Without assuming too much it seems that family disorganization, lower-class pattern of life and frustration encountered by Negroes, will account adequately for possible differences between personalities of Negroes and whites.

A whole list of defense mechanisms has been studied by various investigators in an attempt to explain different aspects of the Negro's behavior. Karon (1951) reported that his subjects used denial of aggression in their behavior. Grossack (1957) reported that Negro college students project their aggressive impulses onto whites. Johnson (1957) argued that the emotional dullness in Negroes is a result of repression of their hostilities, in addition to withdrawal and passivity. Several studies (Clark, 1946; Sheppard, 1947; Gray and Thompson, 1953; Simpson, 1959) reported displacement of aggression that took the form of anti-Semitism among many urban Negroes.

Neo-Freudian concepts were also employed to explain anti-white attitudes among the Negro American. Harry Stack Sullivan (1941), after interviewing Negroes in the South, reported hatred for the white. He, as well as Erick Fromm, Karen Horney, and Carl Rogers, have emphasized the connection between self-acceptance and acceptance of others. Hence,

people who disapprove of themselves tend to disapprove of others. Several studies have demonstrated that Negroes have low regard for themselves. Trent (1957) demonstrated that Negroes who hate and reject themselves tend to hate whites more than those who have a minimal amount of self-hate.

Slavery, poverty, and segregation, although having been experienced by other groups, seem to have some unique effect on the American Negro. Several speculations were made by theorists concerning the effect of slavery.

Tannenbaum (1947) claimed that North America had no set of laws regarding slaves. Hence, slaves were treated as objects of property. The slave was not recognized as a human being, as he was in the other countries more experienced with slavery. This type of relationship is supported in the study of Kardiner and Ovesey (1951). Tannenbaum concluded:

Thus many of the devastating and dehumanizing aspects of slavery in the United States can be traced to its legal roots.

Elkins (1959) followed the same line of reasoning in his analysis of the "Sambo" caricature of Southern slaves. He saw slavery on the large cotton plantations as being a closed system where there is one authority figure present and no chance for any change in the slave's status. He drew an analogy between this situation and the concentration camps of Nazi Germany. In this way he contradicted racists who believed that Sambo was an inborn racial type. In support to his theory he argued that a personality type similar to Sambo has not developed in Africa nor in Latin America.

McClelland (1961) believed that slavery lowered the need for

achievement in the slaves and hence agreed with Elkins' ideas. Negroes in slavery were completely dependent on their master and were rewarded for obedience. This type of situation usually depresses the need for achievement. Considerable empirical evidence supports this contention; repeatedly it had been found that lower status Negroes have less need for achievement than low-status whites (Mussen, 1953; Rosen, 1959; Merbaum, 1960). There is, however, some evidence (Rosen, 1959) that change in the Negro's status occurring by desegregation and mass migration to the North in the last two decades, has brought a change in need achievement among Negroes.

Finally, Pettigrew in a provocative article titled: "Negro American Personality: Why Isn't More Known"? (1964 A) called for:

A social psychological theory of Negro American personality, an interactionist theory that takes into account both the unique history and present socio-cultural position of the group as well as subtle personality dynamics (p. 4).

Most theories discussed here seem more like post-hoc explanations. Some describe the Negro as an aggressive individual with low morality, while others describe him as acquiescent. It seems possible that some of the theories describe the Negro in terms of his interaction with Negroes, while others might be describing his interaction with whites. Since aggressive behavior is more permissible in low-class groups, one would expect no differences between Negroes and whites if they are equated for social class. Today's attempts for desegregation intensify acquiescent behavior in Negroes. However, behavior depending upon family structure, such as: sexual patterns, masculinity-femininity identity, will change very gradually.

### Hypotheses

Most studies do reveal differences in personality between Negroes and whites. However, they do not exercise adequate controls. Therefore, differences are expected when the two groups are compared. When groups are matched on age, sex, intelligence, socioeconomic level and urban-rural designation, differences should be minimized.

The hypotheses are:

I. a. In the unmatched comparison, Negro males will score higher than white males, and Negro females will score higher than white females on the Taylor Manifest Anxiety Scale and Cattell Objective Analytic Anxiety Battery.

b. In the matched comparison, there will be no significant differences between Negro males and white males, and between Negro females and white females on the Taylor Manifest Anxiety Scale and Cattell Objective Analytic Anxiety Battery.

II. In both unmatched and matched comparisons, Negro males will score higher than white males, and Negro females will score higher than white females on Acquiescence Scale.

III. In both unmatched and matched comparisons, Negro males will score higher, in femininity direction, than white males on the Masculinity-Femininity Scale; Negro females will score lower, in femininity direction, than white females on the Masculinity-Femininity Scale.

IV. a. In the unmatched Comparison, Negro males will score lower than white males, and Negro females will score lower than white females on Ego-Strength Scale.

b. In the matched comparison, there will be no significant differences between Negro males and white males, and between Negro females and white females on the Ego-Strength Scale.

V. a. In the unmatched comparison, Negro males will score higher than white males, and Negro females will score higher than white females on the Aggression Scale from the Edwards Personal Preference Schedule.

b. In the matched comparison, there will be no significant differences between Negro males and white males, and between Negro females and white females on the Aggression Scale from the Edwards Personal Preference Schedule.

The hypotheses for the unmatched data are consistent with earlier findings. However, since the literature review suggests that uncontrolled variables might affect the results, the predictions for the matched data are that, differences between the groups will disappear.

## CHAPTER III

### METHODS AND PROCEDURE

#### Scales

The following is a brief description of the scales used in this study. The scales were selected from widely used personality tests, and appeared to be most suitable for the comparison of Negro and white personalities. Justification for not using separate scales can be derived from a 1904 theoretical position held by Spearman, that just as intelligence can be covered by 'g' factor, personality can be covered by 'W' or Will factor. This theoretical position has led many research psychologists to select at random a set of scales to measure personality.

Certain scales are used here because their basic concept is mentioned many times in the psychological literature. While holding a view that more elegant scales will eventually be developed to measure basic dimensions, we are forced to work with those available. The chosen scales are either the best in terms of psychometric elegance or in some cases are the only scales available.

Obviously, in this study when the concept terms are mentioned, interpretations are restricted to the operational definition. Therefore, generalizations of such interpretations are left to the caution and discretion of the reader.



The actual scale items are in Appendix A.

### Anxiety

Two scales were used to measure anxiety: the Taylor Manifest Anxiety Scale (TMAS), and the Honesty in Admitting Common Frailties (242 G) from the Objective Analytic (O-A) Anxiety Battery (1959-60 revision), by R. B. Cattell and I. H. Scheier (C. O-A).

Taylor (1953) selected approximately 200 items from the Minnesota Multiphasic Personality Inventory (MMPI) scales and presented them to clinical psychologists in order to identify the items indicative of manifest anxiety according to definition provided for them by Taylor, following Cameron's description of chronic anxiety reactions. Sixty-five items were chosen on which there was agreement among 80 percent of the judges. Some of the MMPI items which the judges considered incomprehensible, were re-written by Taylor. The 65 items together with some "buffer" items were administered to a group of college students. An item analysis was then performed and the number of items was reduced to 50. This scale is one of the most widely used anxiety scales and has been employed in many studies. Test-retest reliabilities reported by Taylor range from .68 to .89 (Taylor, 1953). Some indication about the validity of the scale was illustrated in several studies where the scale was compared with other MMPI scales (Eriksen and Davids, 1955), and with Winne's Neuroticism Scale (Holzman, Calvin and Botterman, 1952) where a correlation of .74 was obtained.

The "Honesty" scale in the Objective Analytic (O-A) Anxiety Battery includes 35 items. The developers of this scale claim that it is more

than a questionnaire. According to them, ". . . it achieves disguise of purpose and generally prevents deliberate faking." The items on the scale deal with things that every one does, however, only "honest" people admit to them more freely. The authors argue that a person who admits having more faults as stated in the questionnaire is a more anxious individual as a result of having more guilt and self-depreciation.

#### Lie Scale

The Lie Scale (L) is a validity scale of the MMPI (Hathaway and McKinley, 1951). The scale contains 15 items imbedded in the questionnaire, to which a "true" answer makes the subject appear in a favorable light. The authors claim that it is very unlikely, however, for an individual who answers them frankly, to answer more than seven items in the favorable direction. A high L score indicates that the answers on other personality scales given in conjunction with the L scale might lack validity. In some cases "faking good" can be detected, by using the L scale. But sophisticated subjects might be able to avoid this trap. College population norms indicate what may reasonably be expected on a set of items of this sort. Cottle (1950) administered the individual and group forms alternatively within one week to a hundred normal subjects, and reported test-retest reliability coefficient of .46.

#### Verbal Ability

For the purpose of matching white and Negro subjects, a vocabulary test was administered. The scale selected was from the Kit of Refer-

ence Tests for Cognitive Factors, issued by the Educational Testing Service (French, Ekstrom and Price, 1963). These tests are distributed for research purposes only.

The scale selected from this kit is V-5 -- Advanced Vocabulary, which is one of the scales of factor V, Verbal Comprehension, designed to test the ability to understand the English language. The test is a 4-choice synonym test consisting mainly of difficult items. It has two parts, with 18 items in each. Each part is timed 4 minutes.

Several investigators have indicated that vocabulary tests are excellent indicators of general intelligence. Wechsler (1939) argued that a close relationship has consistently been found between scores on well constructed short tests of vocabulary and scores of the best full scale intelligence tests we now have.

The authors of the test note that most reliable part of any intelligence test seems to be the vocabulary scale and factorial analysis of all general intelligence tests indicate the presence of V factor.

In a factor analytic study of fluency tests, Rogers (1953) found fluency of dealing with words to be a factor by itself. He claimed that the 'g' content of such tests is as high as the best 'V' test. This might explain the high correlations that were found between vocabulary and tests of general intelligence. In addition, word fluency tests have an advantage as they are much easier to administer. Thus one is justified to measure V from verbal tests.

Acquiescence

The Bass Social Acquiescence (Bass SA) Scale was used in measuring acquiescence (Bass, 1956). Bass administered three hundred heterogeneous items to two hundred college students. Following an item analysis the scale was reduced to 56 items. The items are stated as generalizations concerning how people behave or should behave. The more statements an individual agrees with, the higher is his score on acquiescence. Bass reported a corrected split-half reliability of .92 with one group of students and a K-R 21 reliability of .81 with 1,491 Louisiana college students.

#### Masculinity-Femininity

The Masculinity-Femininity Scale (Mf) (Hathaway and McKinley, 1951) measures interests characteristic of one or the other sex. The scale contains sixty items, five of which are scored differently for males and females. The remaining 55 items are all scored in the femininity direction. A high score for a male and a low score for a female indicate deviation of interests. The authors of the test reported they found the average score for normal males was 20 to 21, and for females 36 to 37. A score of 30 or more for a male is according to the authors, suggestive of a tendency toward femininity, while a female who scores 27 or less is considered deficient in femininity. This scale has been used quite often in studies involving college students.

#### Ego-Strength

The Ego-Strength Scale (Es) has been developed by Barron (1953) following the publication of the MMPI. It contains items from different

scales of the MMPI. Barron's original intention was development of a scale for measuring therapeutic success. After constructing the test he concluded that "empirically determined" the scale measures ego-strength. Barron views ego-strength in terms of personality integration. After an inspection of the item content of this scale, he suggested that ego-strength was composed of the following characteristics: Physiological stability, good health, a strong sense of reality, feelings of personal adequacy and vitality, permissive morality, lack of ethnic prejudice, emotional outgoingness, spontaneity, and intelligence. He attributed greater resourcefulness, vitality and self-direction to persons of high ego-strength; and inhibition, affection, inability to adapt and effeminacy for males of low ego-strength.

Many studies were conducted in which the ego-strength scale was employed. (Wirt, 1955; Quay, 1955; Taft, 1957). Only a few studies were devoted to the relationship between this scale and other scales based on the MMPI. Ends and Page (1957) reported a negative correlation of  $-.45$  pre-therapy and  $-.65$  post-therapy between MAS and Es scale. Barron, as mentioned earlier, suggested a relationship between low ego-strength and effeminacy in males. He also suggested that high ego-strength is related to greater ability to adapt to new situations.

#### Aggression

The Aggression Scale used in this study is one of the scales imbedded in the Edwards Personal Preference Schedule (EPPS), (Edwards, 1953b). The scale, by using a forced choice technique with items of equal desirability, was designed to minimize the influence of social

desirability. It was designed to measure "normal personality variables," and to be used as an instrument for psychological research. In reviewing the development of the forced-choice technique, Zavala (1965) concluded that its advantages are in its minimizing subjectivity, reducing fakability, reducing positive skew and providing ratings which are reliable and valid. The scale contains 28 pairs of items.

#### Socioeconomic Index

The measure of social index employed in this study is the Two Factor Index of Social Position that grew out of the careful investigations of Hollingshead and his colleagues.

As indicated by Hollingshead and Redlich (1958) the index was developed ". . . to meet the need for an objective, easily applicable procedure to estimate the positions individuals occupy in the status structure of our society" (p. 387). The two factors utilized to determine the social position are occupation and education of the head of the household.

Each of the factors is scaled on a seven point scale and then combined by weighing the individual scores obtained by the investigators by employing multiple correlation techniques. Factor analysis was used by Hollingshead and Redlich to determine the relationship between the estimate of class position of individuals and their social behavior.

Barber (1957) reviewed indices of social class position and indicated that using more than one indicator tends to increase the validity of an index as a measure. The social index is presented in Appendix C.

## Subjects

Subjects participating in this study were white students from Oklahoma State University, Stillwater, Oklahoma, and Negro students from Oakwood College at Huntsville, Alabama, who were enrolled for the 1965 Fall semester.

Eight hundred and twenty-five white students and 325 Negro students were tested, of which information obtained from 657 white and 272 Negro students was complete and was used in this investigation. Of the 657 white students, 307 were males and 350 were females. All were enrolled in different sections of an undergraduate introductory course in psychology, and the majority were freshmen and sophomores. Five hundred and fifty-six came from towns with a population over 2,500, while 101 were from smaller towns. About 85 percent of students were from the state of Oklahoma, the rest from different states in the United States. They ranged from 16 to 33 years in age with a mean age of 18.5. Their socioeconomic status as indicated by the Socioeconomic Index ranged from 11 to 77 with a mean at 37.5.

The students from Oakwood College were Negroes, who came from different states in the United States. The college is supported by the Seventh-day Adventist church and the majority of students are from this denomination. Most students tested were freshmen and sophomores, who were enrolled in various classes. They ranged in age from 17 to 39 with a mean age of 19.7. Out of the 272 Negroes, 114 were male and 158 females. Their socioeconomic range varied from 11 to 77 with a mean of 55.8. Two hundred and forty-two were from urban areas and 30 were from rural areas (less than 2,500 population).

### Collection of Data

The various scales were put together into two booklets. The first one included: TMAS, L scale, Cattell O-A, and Vocabulary test. The second included: Bass SA, Mf scale, Es scale, and Aggression scale. The directions printed on each booklet are presented in Appendix B. The names of the scales were not indicated, and items did not appear in scale order. Subjects were given IBM answer sheets and marking pencils for indicating their answers. This was done so that the answers could be machine scored.

Each of the subjects were asked to indicate on the answer sheet their sex, age, name of home town, father's occupation and level of education.

All tests were administered by the investigator. In Oklahoma State University the tests were given to students in Introductory Psychology, sections ranging from 50 to 250.

The investigator spent a week on Oakwood College campus, collecting data from different classes in groups ranging from 15 to 85.

### Treatment of Data

After data were collected, a very careful check of all answer sheets was made by the investigator. This resulted in excluding 53 Negro and 168 white subjects for incomplete or insufficient information, such as: age, sex, parents' occupation and education; or for failing to respond to more than 30 items in the whole battery. A check for possible unusually high scores on L scale was also made. No subjects were excluded for their score on this scale.



Two groups were obtained: 657 whites and 272 Negroes. These were considered the unmatched groups. These groups were divided into males and females and urban and rural for the purpose of analysis.

From these two smaller groups two matched groups were obtained. This was done to equate Negro and white subjects on the control variables to minimize their possible effect on the results. Each white subject was matched with a Negro subject on sex, urban-rural designation which was determined on the basis of the 1960 Census: Towns with population exceeding 2,500 were considered urban; each of these white subjects was also matched with a Negro subject who is within one year of his age, within half a standard deviation of his vocabulary score and within his social group as indicated by the social index in Appendix C.

One hundred and fifty-three matched pairs were obtained.

Subjects above 23 years of age were not included.

An IBM 7040 computer, located at the Computer Center of Oklahoma State University was used for computations.

There were three phases in the statistical analysis of the data. In each phase the analysis was repeated for unmatched and matched groups. In the first phase product-moment correlations among the measures were obtained followed by the Fisher's Z, test of differences between correlations. This was done to determine the consistency of the relationships between the measures for both white and Negro subjects.

In the second phase attention was turned to the question of whether there are significant differences between the white and Negro sub -

jects on the different personality measures of interest here. A 2x2 factorial arrangement was analyzed for each variable and tested by an F test. The advantage of a factorial arrangement in this case is in separating the effects of race and sex. It is considered essential since it is indicated in the literature that both variables affect responses on several of the scales used in this study.

Due to extremely large differences between the urban and rural groups, 350 and 307 urban vs. 8 and 10 rural, it seemed advisable to carry the factorial analysis only on equal urban groups. The rural groups were extremely small hence any conclusions based on these findings would be questionable. The groups were equalized by random elimination of subjects and the Analysis of Variance (AOV) was employed on four equal groups: white males and females, and Negro males and females. The unmatched groups were 103 subjects each, and matched groups were 64 subjects each.

To more precisely locate the differences between the groups, data were analyzed in 13 paired groups, differences tested by t.

To evaluate truncation, the accuracy of the computations made by the computer were checked in the first phase by calculating the means and product-moment correlation between three of the measures, with a desk calculator. Conventional checks for computer accuracy were also used in the second and third phase.

## CHAPTER IV

### RESULTS AND CONCLUSIONS

Results of the statistical analysis are presented in three sections. The first section includes general findings related to the consistency of the intercorrelations of scales for both Negro and white groups. In the second section are included results relating to differences between the two groups on the various personality measures. The third section concerns findings related to the control variables.

#### Consistency of Intercorrelations

In order to determine the consistency of intercorrelations between the measures used for the total white and Negro sample, a series of product-moment correlations were employed. These are presented in Tables I and II.

Significant correlations between the TMAS and most of the other measures were obtained for both the Negro and white groups. Some of these correlations were slightly higher for the Negro than for the white group. The highest correlation for both groups,  $-.58$  was between the TMAS and Es scale. Cattell O-A correlates significantly with Mf, Es, Aggression and L scales, for the Negro group, however, for the white group it correlates significantly only with the L scale. The direction of the correlations between Cattell O-A and all other

TABLE I  
INTERCORRELATIONS AMONG PERSONALITY SCALES  
FOR WHITE GROUP

Scale	TMAS	C. O-A	B.SA	Mf	Es	Agg	L
TMAS	1.00	.28**	.12*	.28**	-.58**	-.07	-.22**
C. O-A		1.00	-.08	-.11*	-.14**	.11*	-.59**
B. SA			1.00	-.03	-.17**	-.04	-.01
Mf				1.00	-.35**	-.25**	-.01
Es					1.00	.10	.09
Agg						1.00	-.02
L							1.00

\*\*Critical value for significance ( $p = .01$ ) = .14

\*Critical value for significance ( $p = .05$ ) = .11

TABLE II  
INTERCORRELATIONS AMONG PERSONALITY SCALES  
FOR NEGRO GROUP

Scale	TMAS	C. O-A	B.SA	Mf	Es	Agg	L
TMAS	1.00	.40**	.30**	.33**	-.58**	-.01	-.27**
C. O-A		1.00	.01	-.02	-.10	.13	-.52**
B. SA			1.00	.08	-.22**	-.11	-.08
Mf				1.00	-.24**	-.15*	-.07
Es					1.00	.07	.01
Agg						1.00	-.05
L							1.00

\*\*Critical value for significance ( $p = .01$ ) = .17

\*Critical value for significance ( $p = .05$ ) = .14

measures is the same for both groups. It is important to keep in mind, however, the high correlations, white  $-.59$  and Negro  $-.52$ , found for both groups between Cattell O-A and the L scale. Since the L scale is a validity measure the scores can be used as an indication of confidence in other scales employed. All other intercorrelations were consistent for both groups. The Fisher's Z test was used to test for differences on correlations between the two groups. No significant differences were found for any of the correlations between the Negro and white groups.

In general, the foregoing analysis revealed consistency of intercorrelations for the two groups. It is also significant to note that these intercorrelations are in accordance with findings from other studies where these measures have been employed.

#### Differences on Personality Measures

In the second phase of the analysis, attention was turned to the question of whether or not there are significant differences between the white and Negro subjects on the various personality measures employed in this study. First an Analysis of Variance (AOV) for each personality variable was performed. This was followed by  $t$  tests to identify the differences between the groups. The comparisons were repeated for unmatched and matched groups. The AOV tables and  $t$  test comparisons are presented in Tables III through XX.

The results of these analyses and pertinent hypotheses will be presented separately for each of the variables. The predictions for the unmatched comparisons are consistent with findings in earlier research.

Hypothesis one; Negro subjects will score higher than white subjects on the anxiety scales in the unmatched comparisons. No differences were predicted for the matched group analysis. Both these predictions were not supported. Contrary to what was predicted, the white subjects, male and female, scored significantly higher, beyond the .001 level, than Negro males and females for both the unmatched and matched comparisons. It was also found that white females scored highest while Negro males scored lowest on TMAS. Significant differences between males and females within the groups for unmatched and matched data revealed females scored significantly higher than males. These results are supported by both  $t$  tests and the factorial AOV, Tables III, IV and V, where race factor (A) and sex factor (B) were found to be significant at .01 level for both the unmatched and matched analysis. No differences were found within the white and Negro groups in the urban-rural comparisons. However, when these groups were divided to males and females, significant differences were found. It seems reasonable therefore, to assume that the differences are mainly due to the differences between the Negro and white groups and between the sexes, and are not particular to urban-rural designation.

Slightly different results were obtained from the statistical analysis of Cattell Objective-Analytic Anxiety Test. On the unmatched comparisons, the white subjects scored significantly higher than Negro subjects, these differences disappeared however, in the matched comparisons, Table VIII. When groups were divided to males and females significant differences were found with white males scoring significantly higher for both unmatched and matched comparisons. No significant differences were found between the female groups. When com-

TABLE III  
ANALYSIS OF VARIANCE FOR TMAS  
UNMATCHED GROUPS (N = 412)

Source of Variation	df	MS	F
A (race)	1	533.885	10.647**
B (sex)	1	1858.311	37.062**
AB	1	9.634	n.s.
Within groups	408	50.141	
Total	411	2451.971	

TABLE IV  
ANALYSIS OF VARIANCE FOR TMAS  
MATCHED GROUPS (N = 256)

Source of Variation	df	MS	F
A (race)	1	837.379	13.533**
B (sex)	1	844.629	13.651**
AB	1	14.535	n.s.
Within groups	252	61.874	
Total	255	1696.543	

\*Significant at the .05 level.  
\*\*Significant at the .01 level.

TABLE V  
COMPARISON OF MEAN SCORES FOR WHITE  
AND NEGRO Ss ON TMAS  
(N total = 929 unmatched Ss; 306 matched Ss)

Comparison Groups		Unmatched groups		Matched groups	
		Mean	t value	Mean	t value
All whites	vs.	18.248	4.505***	18.791	3.537***
All Negroes		15.805		15.536	
White males	vs.	16.560	5.351***	17.139	3.700***
Negro males		12.833		12.875	
White females	vs.	19.729	2.413*	20.259	1.765
Negro females		17.949		17.901	
White males	vs.	16.560	5.409***	17.139	2.348
White females		19.729		20.259	
Negro males	vs.	12.833	6.179***	12.875	4.331***
Negro females		17.949		17.901	
White urban	vs.	18.315	4.608***	18.948	3.679***
Negro urban		15.640		15.333	
White rural	vs.	17.881	.478	17.611	.209
Negro rural		17.133		17.056	
White urban	vs.	18.315	.549	18.948	.679
White rural		17.881		17.611	
Negro urban	vs.	15.640	1.015	15.333	.846
Negro rural		17.133		17.056	
White-urban-males	vs.	16.528	4.775***	17.141	3.365**
Negro-urban-males		12.903		13.047	
White-urban-females	vs.	19.818	2.717**	20.577	2.194**
Negro-urban-females		17.669		17.394	
White-rural-males	vs.	16.717	2.798**	17.125	1.484
Negro-rural-males		12.182		11.500	
White-rural-females	vs.	19.167	.409	18.000	1.104
Negro-rural-females		20.000		21.500	

\*Significant at the .05 level. \*\*\*Significant at the .001 level  
\*\*Significant at the .01 level.



parisons between males and females within the groups were made, significant differences were revealed between white males and white females for both unmatched and matched comparisons. No differences between males and females were found for the Negro groups comparisons. This suggests the possibility of interaction between race and sex. The findings of the AOV, presented in Tables VI and VII, supported the results obtained by the  $t$  tests. Differences due to race and differences due to sex are significant at the .01 level and the .05 level respectively for the unmatched groups analysis. For the matched group comparisons, however, neither factor A nor factor B appeared significant, but the interaction of these factors is significant. This finding is inconsistent with most findings reported in the literature. The lack of male-female differences and the presence of interaction in this particular case might be an artifact resulting from the sample selected by matching.

In summary, for this study, when subjects were not matched, white subjects scored significantly higher than Negro subjects on the TMAS and Cattell O-A; and when the groups were matched, this result held only for the TMAS.

In hypothesis two the prediction was made that in both unmatched and matched comparisons Negro subjects would score higher than white subjects on Bass Social Acquiescence. These predictions were supported for both unmatched and matched comparisons. The AOV, Tables IX and X, and the  $t$  test, Table XI, performed on the data, revealed significantly higher scores beyond the .01 level, for Negro subjects as compared with white subjects. The Negro male group scored significantly higher than the white male group and the Negro female group

TABLE VI  
ANALYSIS OF VARIANCE FOR CATTELL'S ANXIETY TEST  
UNMATCHED GROUPS (N = 412)

Source of Variation	df	MS	F
A (race)	1	264.320	7.072**
B (sex)	1	201.320	5.386*
AB	1	83.971	n.s.
Within groups	408	37.375	
Total	411	586.986	

TABLE VII  
ANALYSIS OF VARIANCE FOR CATTEL'S ANXIETY TEST  
MATCHED GROUPS (N = 256)

Source of Variation	df	MS	F
A (race)	1	92.641	n.s.
B (sex)	1	92.641	n.s.
AB	1	162.562	4.467*
Within groups	252	36.389	
Total	255	384.233	

\*Significant at the .05 level.

\*\*Significant at the .01 level.

TABLE VIII

COMPARISON OF MEAN SCORES FOR WHITE AND NEGRO Ss  
ON CATTELL'S ANXIETY TEST  
(N total = 929 unmatched Ss; 306 matched Ss)

Comparison Groups		Unmatched groups		Matched groups	
		Mean	t value	Mean	t value
All whites	vs.	14.486	3.612***	14.176	1.558
All Negroes		12.908		13.098	
White males	vs.	15.938	4.456***	15.569	2.679**
Negro males		12.930		12.778	
White females	vs.	13.211	.564	12.938	.497
Negro females		12.892		13.383	
White males	vs.	15.938	5.409***	15.569	2.742**
White females		13.211		12.938	
Negro males	vs.	12.930	.050	12.778	.610
Negro females		12.892		13.383	
White urban	vs.	14.583	3.419***	14.281	1.585
Negro urban		12.983		13.111	
White rural	vs.	13.950	1.372	13.389	.191
Negro rural		12.300		13.000	
White urban	vs.	14.583	.914	14.281	.577
White rural		13.950		13.381	
Negro urban	vs.	12.983	.627	13.111	.073
Negro rural		12.300		13.000	
White-urban-males	vs.	15.862	3.984***	15.625	2.623*
Negro-urban-males		13.049		12.828	
White-urban-females	vs.	13.507	.922	13.070	.294
Negro-urban-females		12.935		13.366	
White-rural-males	vs.	16.302	1.965	15.125	.663
Negro-rural-males		11.818		12.375	
White-rural-females	vs.	11.354	.961	12.000	.892
Negro-rural-females		12.579		13.500	

\*Significant at the .05 level. \*\*\*Significant at the .001 level.  
\*\*Significant at the .01 level.

TABLE IX  
ANALYSIS OF VARIANCE FOR BASS SOCIAL ACQUIESCENCE SCALE  
UNMATCHED GROUPS (N = 412)

Source of Variation	df	MS	F
A (race)	1	3914.801	62.423**
B (sex)	1	707.766	11.286**
AB	1	.004	n.s.
Within groups	408	62.714	
Total	411	4687.275	

TABLE X  
ANALYSIS OF VARIANCE FOR BASS SOCIAL ACQUIESCENCE SCALE  
MATCHED GROUPS (N = 256)

Source of Variation	df	MS	F
A (race)	1	2075.941	32.576**
B (sex)	1	573.004	8.992**
AB	1	.660	n.s.
Within groups	252	63.726	
Total	255	2713.331	

\*Significant at the .05 level.

\*\*Significant at the .01 level.

TABLE XI

COMPARISON OF MEAN SCORES FOR WHITE AND NEGRO Ss  
ON BASS SOCIAL ACQUIESCENCE SCALE  
(N total = 929 unmatched Ss; 306 matched Ss)

Comparison Groups		<u>unmatched groups</u> Mean t value		<u>matched groups</u> Mean t value	
All whites	vs.	30.773	11.191***	31.209	5.626***
All Negroes		37.125		36.490	
White males	vs.	30.059	5.821***	30.028	3.110**
Negro males		35.509		34.597	
White females	vs.	31.400	9.994	32.259	5.080***
Negro females		38.291		38.173	
White males	vs.	30.059	2.166*	30.028	1.710
White females		31.400		32.259	
Negro males	vs.	35.509	2.827**	34.597	2.657*
Negro females		38.291		38.173	
White urban	vs.	30.910	10.859***	31.230	5.798***
Negro urban		37.426		36.889	
White rural	vs.	30.020	2.666**	31.056	.771
Negro rural		34.700		33.500	
White urban	vs.	30.910	1.077	31.230	.083
White rural		30.020		31.056	
Negro urban	vs.	37.426	1.641	36.889	1.349
Negro rural		34.700		33.500	
White-urban-males	vs.	30.189	5.831***	29.609	3.722***
Negro-urban-males		35.893		35.203	
White-urban-females	vs.	31.517	9.568***	32.690	4.667***
Negro-urban-females		38.561		38.408	
White-rural-males	vs.	29.434	.746	33.375	.675
Negro-rural-males		31.909		29.750	
White-rural-females	vs.	30.667	2.873*	29.200	2.016
Negro-rural-females		36.316		36.500	

\*Significant at the .05 level. \*\*\*Significant at the .001 level.  
\*\*Significant at the .01 level.

scored significantly higher than the white female group. Differences between males and females within the Negro and white groups were also significant. Negro females scored significantly higher as compared with Negro males in the unmatched comparison. This result was also significant in the matched group comparison. Differences in the white group were significant with females scoring higher than males for the unmatched comparison. This difference did not hold, however, for the matched data. On the AOV, in both comparisons, factors A and B indicated significant differences between the Negro and white groups and between males and females in the same direction as indicated by the t test comparisons.

In this personality measure, as in the previous ones, no significant differences were found between urban and rural comparisons within the groups.

It can, therefore, be concluded that significant differences in scores appear on Bass SA, in this study, between Negroes and whites and between males and females.

In hypothesis three predictions were made with regard to differences on the Mf scale. It was hypothesized that Negro males will score higher than white males and Negro females will score lower than white females on femininity interests, for both unmatched and matched comparisons. This hypothesis was partially supported. No significant differences were revealed in the total Negro and white groups or for the males comparisons, on the Mf scale; data presented in Table XIV. White females, however, scored significantly higher than Negro females on the unmatched group comparison. This significant difference disappeared when groups were matched. Significant differences between

TABLE XII  
ANALYSIS OF VARIANCE FOR Mf SCALE  
UNMATCHED GROUPS (N = 412)

Source of Variation	df	MS	F
A (race)	1	45.556	n.s.
B (sex)	1	11843.872	485.974**
AB	1	15.932	n.s.
Within groups	408	24.371	
Total	411	11929.731	

TABLE XIII  
ANALYSIS OF VARIANCE FOR Mf SCALE  
MATCHED GROUPS (N = 256)

Source of Variation	df	MS	F
A (race)	1	.098	n.s.
B (sex)	1	7171.973	332.332**
AB	1	55.316	n.s.
Within groups	252	21.581	
Total	255	7248.988	

\*Significant at the .05 level.

\*\*Significant at the .01 level.

TABLE XIV  
COMPARISON OF MEAN SCORES FOR WHITE AND NEGRO Ss  
ON MASCULINITY-FEMININITY SCALE  
(N total = 929 unmatched Ss; 306 matched Ss)

Comparison Groups		Unmatched groups		Matched groups	
		Mean	t value	Mean	t value
All whites	vs.	31.979	1.270	31.020	.260
All Negroes		31.349		30.810	
White males	vs.	25.928	.477	24.722	1.261
Negro males		25.675		25.722	
White females	vs.	37.286	4.372***	36.617	1.926
Negro females		35.443		35.333	
White males	vs.	25.928	29.238***	24.722	15.912***
White females		37.286		36.617	
Negro males	vs.	25.675	17.606***	25.522	13.406***
Negro females		35.443		35.333	
White urban	vs.	32.221	1.509	31.089	.197
Negro urban		31.417		30.919	
White rural	vs.	30.644	.121	30.500	.232
Negro rural		30.800		30.000	
White urban	vs.	30.221	1.789	31.089	.326
White rural		30.644		30.500	
Negro urban	vs.	31.417	.566	30.919	.627
Negro rural		30.800		30.000	
White-urban-males	vs.	26.331	1.271	34.891	1.032
Negro-urban-males		25.602		35.781	
White-urban-females	vs.	37.175	3.232	36.676	1.537
Negro-urban-females		35.727		35.549	
White-rural-males	vs.	24.000	1.703	23.375	1.020
Negro-rural-males		26.364		25.250	
White-rural-females	vs.	37.179	3.970	36.200	1.701
Negro-rural-females		33.368		33.800	

\*Significant at the .05 level. \*\*\*Significant at the .001 level.  
\*\*Significant at the .01 level.



males and females in both Negroes and whites are due to the nature of the scale. No differences due to race were indicated in the factorial AOV in both unmatched and matched comparisons. These results are presented in Tables XII and XIII. Significant differences due to differences between the sexes are self-explanatory.

In summary, the results of the analysis of the Mf scale revealed differences between white females and Negro females in the unmatched comparisons only.

Hypothesis four was that Negro subjects will have lower Ego-Strength scores than the white subjects in the unmatched comparisons. No differences were predicted for the matched data. This hypothesis was supported for both analyses. The comparison of the total white group with the total Negro group on the Es scale, presented in Table XVII, revealed differences beyond the .001 level for the unmatched group comparison. This difference, however, dropped in the matched group comparison. Significant differences were also found between white male subjects and Negro male subjects, and between white female subjects and Negro female subjects, with white subjects scoring higher in both groups. These significant differences disappeared, however, for both groups in the matched group comparisons.

Male-female differences within the Negro and white groups were also significant in both unmatched and matched data with males scoring significantly higher in both comparisons.

Significant differences found in the different urban-rural comparisons might be due to the confounding of male-female differences and other variables as most of these are not significant in the matched group comparison. The AOV, presented in Tables XV and XVI,

TABLE XV  
ANALYSIS OF VARIANCE FOR EGO STRENGTH SCALE  
UNMATCHED GROUPS (N = 412)

Source of Variation	df	MS	F
A (race)	1	585.148	16.317**
B (sex)	1	1495.691	41.706**
AB	1	14.391	n.s.
Within groups	408	35.862	
Total	411	2131.092	

TABLE XVI  
ANALYSIS OF VARIANCE FOR EGO STRENGTH SCALE  
MATCHED GROUPS (N = 256)

Source of Variation	df	MS	F
A (race)	1	122.375	n.s.
B (sex)	1	780.504	17.129
AB	1	1.129	n.s.
Within groups	252	45.567	
Total	255	949.579	

\*Significant at the .05 level.

\*\*Significant at the .01 level.

TABLE XVII

COMPARISON OF MEAN SCORES FOR WHITE AND NEGRO Ss  
ON EGO STRENGTH SCALE  
(N total = 929 unmatched Ss; 306 matched Ss)

Comparison Groups		Unmatched groups		Matched groups	
		Mean	t value	Mean	t value
All whites	vs.	44.349	6.287***	43.706	2.482*
All Negroes		41.386		41.782	
White males	vs.	46.179	3.555***	45.389	1.720
Negro males		43.658		43.514	
White females	vs.	42.743	5.113***	42.210	1.878
Negro females		39.747		40.148	
White males	vs.	46.179	7.020***	45.389	2.805**
White females		42.743		42.210	
Negro males	vs.	43.658	5.021***	43.514	3.196**
Negro females		39.747		40.148	
White urban	vs.	44.045	4.518***	43.481	1.589
Negro urban		41.835		42.156	
White rural	vs.	46.020	5.377***	45.389	2.780**
Negro rural		37.767		38.556	
White urban	vs.	34.045	3.082**	43.481	1.378
White rural		46.020		45.389	
Negro urban	vs.	41.835	2.752**	42.156	1.640
Negro rural		37.767		38.556	
White-urban-males	vs.	45.815	2.337*	45.281	1.162
Negro-urban-males		44.194		44.031	
White-urban-females	vs.	42.556	3.921***	41.859	1.167
Negro-urban females		40.086		40.465	
White-rural males	vs.	47.925	2.833**	46.250	1.459
Negro-rural-males		38.636		39.375	
White-rural-females	vs.	43.917	4.360***	44.700	2.667*
Negro-rural-females		37.263		37.900	

\*Significant at the .05 level. \*\*\*Significant at the .001 level.  
\*\*Significant at the .01 level.

revealed differences mainly related to sex but not to race. In the unmatched comparisons both factors A (race) and B (sex) appear significant. In the matched group comparison only factor B appears significant.

In brief, it seems from the above that differences between Negro and white subjects disappeared when groups are matched. Differences due to sex, however, stay in both unmatched and matched comparisons.

The prediction of hypothesis five, that Negro subjects will score higher on the aggression scale in the unmatched comparisons was supported. The prediction of no differences between the matched groups on aggression was also supported. The comparison for unmatched data of all the white subjects with all Negro subjects on the aggression scale, presented in Table XX, reveal that white subjects score significantly higher, at the .05 level, than Negro subjects. This difference, however, did not hold for the matched comparisons. It was also found that white males score significantly higher than Negro males on the aggression scale. This difference also dropped when groups were matched. Significant differences between males and females within the white and Negro groups were found with males scoring significantly higher in both groups. These results are consistent for both unmatched and matched comparisons.

The factorial AOV for aggression scores, presented in Tables XVIII and XIX, reveals that only differences due to sex are significant for both unmatched and matched data. It should be kept in mind that when total groups, Negro and white, are compared with a t test the sex factor is confounded with the race factor. This, however, is not the case in the AOV analysis.

TABLE XVIII  
ANALYSIS OF VARIANCE FOR AGGRESSION SCALE  
UNMATCHED GROUPS (N = 412)

Source of Variation	df	MS	F
A (race)	1	51.738	n.s.
B (sex)	1	495.883	18.841
AB	1	6.068	n.s.
Within groups	408	26.320	
Total	411	580.009	

TABLE XIX  
ANALYSIS OF VARIANCE FOR AGGRESSION SCALE  
MATCHED GROUPS (N = 256)

Source of Variation	df	MS	F
A (race)	1	5.063	n.s.
B (sex)	1	306.250	18.095
AB	1	.562	n.s.
Within groups	252	16.924	
Total	255	328.799	

\*Significant at the .05 level.

\*\*Significant at the .01 level.

TABLE XX  
COMPARISON OF MEAN SCORES FOR WHITE AND NEGRO Ss  
ON EPPS AGGRESSION SCALE  
(N total = 929 unmatched Ss; 306 matched Ss)

Comparison Groups		Unmatched groups		Matched groups	
		Mean	t value	Mean	t value
All whites		10.038		9.627	
All Negroes	vs.	9.070	2.502*	9.359	.561
White males		11.202		10.750	
Negro males	vs.	10.202	2.042*	10.667	.112
White females		9.017		8.630	
Negro females	vs.	8.253	1.384	8.198	.765
White males		11.202		10.750	
White females	vs.	9.017	6.720***	8.630	3.252**
Negro males		10.202		10.667	
Negro females	vs.	8.253	2.942**	8.198	3.687***
White urban		10.086		9.659	
Negro urban	vs.	9.062	2.411*	9.415	.477
White rural		9.772		9.389	
Negro rural	vs.	9.133	.828	8.944	.329
White urban		10.086		9.659	
White rural	vs.	9.772	.654	9.380	.256
Negro urban		9.062		9.415	
Negro rural	vs.	9.133	.097	8.944	.477
White-urban-males		11.220		10.828	
Negro-urban-males	vs.	10.165	1.976*	10.641	.235
White-urban-females		9.132		8.606	
Negro-urban-females	vs.	8.245	1.451	8.310	.488
White-rural-males		11.113		10.125	
Negro-rural-males	vs.	10.545	.561	10.875	.348
White-rural-females		8.292		8.800	
Negro-rural-females	vs.	8.316	.024	7.400	.861

\*Significant at the .05 level. \*\*\*Significant at the .001 level.  
\*\*Significant at the .01 level.

In the urban-rural comparisons, no significant differences were found between the groups on any of the variables. When these groups were divided to males and females and comparisons between the groups were made, some significant differences were found. It seems, therefore, reasonable to assume that the differences are mainly due to differences between the Negro and white groups and are not effected by urban-rural designation.

A note of caution is in order here with regard to significant differences found by the comparisons with t test. It has been indicated (Ryan, 1959) that when the number of comparisons increases, the probability of judging one or more of these comparisons significant, also increases. For example, when 13 comparisons are made and tested with the t test at .01 level, they are actually tested at  $(1 - .99^{13}) = .13$ . In other words, in 13% of comparisons analyzed there will be one or more "significant" differences, even though the complete null hypothesis is true. Each separate comparison, however, is assumed to be tested at the .01 level of significance.

Summarizing the foregoing analysis, it can be said that some of the differences between Negro and white subjects on personality measures disappear when groups are matched. Significant differences remain only on anxiety and acquiescence scales with whites scoring significantly higher on anxiety and Negroes scoring significantly higher on acquiescence. Urban-rural differences do not seem to be an important factor in terms of differences between the two groups.

The significance and interpretations of these findings are covered more fully in the chapter which follows.

### Background Variables

Three additional scores were obtained on every subject on: a) Vocabulary scale, b) social index, and c) L scale. These scores were used for control and matching purposes.

The mean of the L scores for the white group, unmatched, was 3.145, and for the matched comparisons, 3.255. For the Negro groups, the mean scores were 5.129 and 4.987, respectively. The differences between the groups were significant ( $t = .001$ ) in both comparisons. It should be noted, however, that both means are below the average point for lying, which is considered to be seven.

The white group scored significantly higher than the Negro group on the vocabulary scale: white group mean 13.163, and Negro group mean 10.283,  $t < .001$ . White females scored highest (13.574), next was the white male group (12.694), which was followed by the Negro male group (10.877). The lowest mean score was obtained by the Negro female (9.854).

Significant differences ( $t = .001$ ) in the scores on the socioeconomic index were obtained when white subjects were compared with Negro subjects. The mean socioeconomic index for the white group was 37.659, which is in social class III, according to the social index presented in Appendix C. The mean for the Negro group was 55.575 which is in social class IV as indicated by the social index. This difference is slightly higher than one standard deviation for all subjects tested; the standard deviation of this scale was found to be 17.24.



## CHAPTER V

### DISCUSSION

This study is essentially an example of control applied to variables which may contribute to differences between personality measures obtained for white and for Negro college students. Evidence supporting the hypothesis that differences might be related to inadequate controls is common knowledge to psychologists (Klineberg, 1944; Anastasi, 1958; Pettigrew, 1964 A). Perhaps the most revealing finding from data obtained in the study is that when adequate controls are exercised some of the differences found in scores of personality measures of Negroes and whites disappear.

In contrast to earlier findings (Kardiner and Ovesey, 1951; Caldwell, 1959; Hokanson and Calden, 1960), the results reported in this study indicate that white subjects score significantly higher on measures of anxiety than do Negro subjects. It is possible that a defense mechanism of denial and faking operated in the Negro sample in this study, which resulted in lower scores on anxiety scales. Support for this point of view can be found in the significantly higher scores on the L scale found in the Negro group. It is important to note here that there is a significantly high negative correlation between the anxiety scales and the L scale in this study, which is consistent with earlier findings. Additional support for this line of reasoning can be found in some inconsistencies revealed in the data on the anxiety

scales. While significant differences were found for both unmatched and matched comparisons on the TMAS, some of the differences did not hold for the matched comparisons on Cattell O-A. There is evidence that the TMAS is more susceptible to deception as compared to other measures of anxiety (Davis, 1955). The authors of Cattell O-A name, among the advantages of this scale, disguise of purpose and lesser possibility for the respondent to accomplish deliberate faking. There might be a reason to believe, therefore, that more faking occurred in the responses of Negro subjects on the TMAS. It is also possible that faking affected the scores on the acquiescence scale in this study. The Negro group scored significantly higher on the acquiescence scale. This finding is in agreement with those from several earlier studies (Hurlock, 1930; Kardiner and Ovesey, 1951; Johnson, 1957). Pettigrew (1964 A) interpreted a comparable finding as being a defense, a mask of passive acquiescence, developed by Negroes to adjust to the environment. Elkins (1959), in his theory about the "Sambo," claims that slavery led to a childish personality and total acceptance of a father-figure among Negro slaves, hence the origin for higher acquiescence among contemporary Negroes.

One might also argue that differences in anxiety do exist apart from differences on the L scale, and that differences between the groups on the L scale revolve about possible differences in the subject sample. Support for this viewpoint comes from the investigator's personal observations and information gathered about Oakwood college. Oakwood college is a church related institution sponsored by the Seventh-day Adventist faith which denomination is considered to hold to an orthodox religious philosophy, and

is scientifically oriented. As indicated by the Seventh-day Adventist Department of Education:

There is a spiritual climate or atmosphere in which prayer, worship and doing the will of God is, in the eyes of the majority of the students, the ideal and accepted pattern of living (Hammill, 1952, p. 7).

Most students at Oakwood college were also brought up in a religious atmosphere and for them to endorse items of the L scale, like: "At times I feel like swearing" (item 39, Appendix A), or "I do not always tell the truth" (item 4, Appendix A), would be to admit doing wrong and, hence, will be contrary to what is expected of them by members of their subculture. If they mark items like the above as "false" in line with their beliefs, they will obtain high scores on the L scale. The differences in these scales may be due to real differences in personality. These responses might reflect differences in values, self-concept, beliefs and ideas.

In support of the finding of less anxiety in Negro subjects, two earlier studies report similar results. Patrick and Sims (1934) using the Bernreuter Personality Inventory found Negro females to be less neurotic as compared with white females. Stainbrook and Siegel (1944), using the Rorschach, reported Negro high school subjects to be more emotionally stable and possessing less anxiety than the white group.

Another possible explanation for the differences in results between the present experiment and earlier similar ones is the fact that the Negro group in this study were students in an all Negro school, where they do not have to compete with white students, therefore, need-achievement for Negroes may be lower. Lower need-achievement in Negro subjects was demonstrated in several studies (Mussen, 1953; Rosen,

1959; Merbaum, 1960) and it is suggested by McClelland's theory (1961). Lack of competition with whites and lower need-achievement might result in lower anxiety. Lack of contacts with whites in college also minimizes frustrating situations, thus, possibly leading to less aggression and less anxiety which might be aroused in these situations. This is in agreement with Dollard, et al., (1939) frustration-aggression theory and with other findings in this study.

Some of the arguments advanced for the differences in the anxiety scales, are relevant to the lack of differences found in the matched groups on the last three variables: *Mf*, *Es* and aggression. One can again argue here that the lack of differences is due to the special characteristics of the Negro group. Data obtained from the Central Conference of the Seventh-day Adventists show that the percentage of broken homes is smaller than is found in the overall population of the United States. One might reason, therefore, that students from Oakwood college were brought up in relatively stable homes and therefore the ego-strength and masculinity-femininity identity are not too different from that of Oklahoma State University students. A note of caution is in order, however, as the information given by the Central Conference of the Seventh-day Adventists pertains to the total Seventh-day Adventists denomination, and it may not be descriptive of either the white or non-white membership.

In accordance with previous hypotheses one can also argue that since the subjects were Negroes at an all Negro college, they experienced less frustrating situations as a result of having fewer confrontations with white people hence their aggression is lower, as has been suggested in Dollard's et al., theory (1939).

It can also be claimed that a denial of aggression is operating in lowering the results on aggression scores for the Negro group as has been suggested by Karon (1958). But this seems somewhat less likely with the Negroes comprising the sample described herein, as the aggression measure used was controlled for social desirability. Moreover, if one maintains the argument that wherever differences are not formed between the groups, defenses are operating, one will be repeating the same mistake made by many racists who were reported in chapter II. It seems that many researchers accepted it as a fact that differences between Negroes and whites in personality do exist. But when differences were not found, in most cases argued faking, without testing it. Most researchers also overlooked the possibility of faking in their white subjects. The question of possible faking will have to await better instruments or better research control over faking.

Still another way to interpret the results is possible, namely, that differences between whites and Negroes are diminishing. This had been suggested by Weatherly, Corke and McCary (1964) who used the Rorschach test in a recent study and reported no significant differences were found between the groups. Earlier studies with the Rorschach (Hunter, 1937; Stainbrook and Siegel, 1944) however had reported differences. This possibility was also suggested by Pettigrew (1964 B), who proposed that recent changes in the American Negro's socioeconomic status and civil rights, have followed changes in the personality of the Negro. This hypothesis can be supported by some of the findings in this study. Since an era of integration arises, Negroes are met with fewer frustrating situations and hence they have less need for aggressive behavior. Instead, they have a strong need

to be accepted by society at large. This need is manifested by the significantly higher scores on the acquiescence scale which were obtained by the Negro subject.

Contrary to the above, one can argue that even if there is a change taking place in the Negro's personality, it is gradual and probably will take many years before the family structure will completely change. The same is true for frustrating situations with which the Negro might find himself confronted in everyday life situations. Hence it might be somewhat premature to say that this is already manifested in the performance of Negro subjects on personality tests.

Finally, all the attempts made here to explain the inconsistencies in the findings fall short from explaining satisfactorily the lack of any significant differences between the groups on the masculinity-femininity scale. None of these explanations can adequately deal with the findings that differences found in comparing the ego-strength and aggression scales of the unmatched groups disappeared completely when the groups were matched.

The final conclusion, therefore is that in many prior studies, the investigators have not controlled well for many relevant variables and this might account for many of the differences reported in previous research.

#### Suggestions for Further Research

Several additional lines of investigation seem advisable for future research. First, an examination of a Negro group in an integrated college as compared with the Negro group employed in this study and

with a white group might be considered. Second, in a comparison with a larger, more heterogenous group, the effect of matching can be studied more extensively by employing a series of matching comparisons each one focused on only one variable at a time. This can be carried out in such a way as to reveal which one of the control variables carried most weight and is mainly the cause for differences found in unmatched groups.

Finally, an attempt should be made to use only those measures of personality in studies of racial differences where faking is kept to minimum, or to control for faking as much as possible by matching subjects or groups on L scores.

## CHAPTER VI

### SUMMARY

This study was designed to explore whether reported differences between personalities of Negro and white subjects on personality measures are artifacts resulting from inadequate control of variables.

Eight personality measures were administered to 825 white college students at Oklahoma State University and 325 Negro college students at Oakwood college in Huntsville, Alabama. The scales used in measuring personality are: Taylor Manifest Anxiety Scale (TMAS), Lie scale from the MMPI (L), Anxiety Test (242-G) from Cattell's Objective-Analytic Test, Advanced Vocabulary V-5 from Tests of Cognitive Factors, Bass Social Acquiescence Scale, Masculinity-Femininity Scale from the MMPI (Mf), Barron Ego-Strength (Es), and Aggression Scale from Edwards Personal Preference Schedule (EPPS).

The statistical analysis was carried in three phases. First, inter-correlations between the measures were determined. This was followed by a factorial Analysis of Variance for each variable and comparisons with the  $t$  test. Comparisons were made between the two samples and also after a subject by subject matching. The matching process controlled for age, sex, intelligence, socioeconomic background and urban-rural designation.

The findings revealed that the white subjects display more anxiety as indicated by significantly higher scores on the TMAS ( $t = .001$ ). This



result holds for both unmatched and matched groups and is opposite to most conclusions reached in previous studies. The same results were obtained on Cattell O-A Anxiety Test for the unmatched comparisons. No significant differences, however, were found for the matched comparisons. Negroes scored significantly higher ( $t = .001$ ) on the Acquiescence scale in both unmatched and matched groups, which is consistent with other findings. Higher ego-strength scores were found for the white subjects when unmatched data were analyzed, but these differences virtually disappeared in the matched groups. Similarly, the slightly higher aggression scores ( $t = .05$ ) of the unmatched white group disappeared when the groups were matched. Finally, female Negroes differed significantly ( $t = .001$ ) from white females on the Mf scale. With unmatched data, however, all differences disappeared when subjects were matched.

It was concluded that the findings on the anxiety scales, Es, Mf, and aggression scales were inconsistent with most earlier data reported. Several explanations were advanced in an attempt to account for these inconsistencies.

The present statistical results illustrate that faulty and/or lack of control on relevant variables may have contributed to some of the apparent significant differences between white and non-white subjects reported in previous research.

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## A P P E N D I X E S

## APPENDIX A

### SCALES

The scales administered were arranged in two booklets. The first one contained: Taylor Manifest Anxiety Scale, Cattell's Anxiety Test 242-G, Tests for cognitive Factors--Advanced Vocabulary, V-5, and Minnesota Multiphasic Personality Inventory L Scale. The second booklet contained: Bass Social Acquiescence Scale, MMPI Mf Scale, Barron Es Scale, and Edwards Personal Preference Schedule Aggression Scale.

The scales are presented in the order they were given. The number preceding each item refers to its position in the booklet. A key follows each statement.

#### Taylor Manifest Anxiety Scale

2. I find it hard to keep my mind on a task or job. (True)
3. I blush as often as others. (True)
7. I am easily embarrassed. (True)
8. It makes me nervous to have to wait. (True)
9. I sweat very easily even on cool days. (True)
10. I frequently notice my hand shakes when I try to do something. (True)
11. I have often felt that I faced so many difficulties I could not overcome them. (True)
13. I cannot keep my mind on one thing. (True)

16. Often my bowels don't move for several days at a time. (True)
17. I often find myself worrying about something. (True)
18. I do not have as many fears as my friends. (False)
19. At times I think I am no good at all. (True)
21. I do not tire quickly. (False)
22. At times I have been worried beyond reason about something that really did not matter. (True)
24. I am more self-conscious than most people. (True)
25. I am a very nervous person. (True)
30. I am the kind of person who takes things hard. (True)
31. My feelings are hurt easier than most people. (True)
32. I worry over money and business. (True)
34. I often dream about things I don't like to tell other people. (True)
38. At times I lose sleep over worry. (True)
40. Sometimes I become so excited that I find it hard to get to sleep. (True)
43. I feel anxious about something or someone almost all of the time. (True)
46. Life is often a strain for me. (True)
47. I have diarrhea ("the runs") once a month or more. (True)
48. At times I am so restless that I cannot sit in a chair for very long. (True)
51. I am often sick to my stomach. (True)
53. I am very confident of myself. (False)
54. I cry easily. (True)
55. I am often afraid that I am going to blush. (True)
56. I have nightmares every few nights. (True)
57. I don't like to face a difficulty or make an important decision. (True)

- 58. I certainly feel useless at times. (True)
- 60. I have a great deal of stomach trouble. (True)
- 61. When embarrassed I often break out in a sweat which is very annoying. (True)
- 63. I have very few headaches. (False)
- 64. I am happy most of the time. (False)
- 65. My hands and feet are usually warm enough. (False)
- 67. I am not at all confident of myself. (True)
- 68. I feel hungry almost all the time. (True)
- 70. I do not often notice my heart pounding and I am seldom short of breath. (False)
- 72. I am usually calm and not easily upset. (False)
- 74. I work under a great deal of strain. (True)
- 76. At times I feel that I am going to crack up. (True)
- 78. I wish I could be as happy as others. (True)
- 81. I have been afraid of things or people that I knew could not hurt me. (True)
- 82. I worry quite a bit over possible troubles. (True)
- 85. My sleep is restless and disturbed. (True)
- 87. I practically never blush. (False)

Minnesota Multiphasic Personality Inventory  
L Scale (all items keyed "False")

- 1. Once in a while I think of things too bad to talk about.
- 4. I do not always tell the truth.
- 6. I get angry sometimes.
- 12. Sometimes when I am not feeling well I am cross.
- 15. If I could get into a movie without paying and be sure I was not seen I would probably do it.

- 20. I like to know some important people because it makes me feel important.
- 23. I do not like everyone I know.
- 28. I gossip a little at times.
- 29. Sometimes at elections I vote for men about whom I know very little.
- 37. Once in a while I laugh at a dirty joke.
- 39. At times I feel like swearing.
- 42. I do not read every editorial in the newspaper every day.
- 44. Once in a while I put off until tomorrow what I ought to do today.
- 49. My table manners are not quite as good at home as when I am out in company.
- 66. I would rather win than lose a game.

Cattel O-A Battery, Anxiety Test 242-G  
(Do you sometimes . . .?)

- 5. At times, I have been more afraid than I would dare admit. (True)
- 14. I sometimes fail to do what I know is right, because I lack courage. (True)
- 26. I sometimes say bad things about a person that I would not tell him to his face. (True)
- 27. I sometimes think of things that are too bad or "dirty" to talk about. (True)
- 41. I sometimes wish evil things would happen to my competitors or opponents. (True)
- 45. At times, I have gone along with the crowd even when my conscience told me this was the wrong action. (True)
- 50. I sometimes take credit for doing things that were really done mostly by someone else. (True)
- 52. I always keep secrets that I promise to keep. (False)
- 59. I have at times lied deliberately. (True)
- 69. I like to know important people because it makes me feel important. (True)

71. I always have good reasonable and unemotional reasons for doing things. (False)
75. I have sometimes blamed other people for something which was my fault. (True)
77. I have sometimes had improper thoughts about a member of the opposite sex. (True)
79. I always try to do things on time and promptly, instead of putting things off. (False)
83. I have sometimes "picked on" or bullied someone smaller than myself. (True)
84. I sometimes lose my temper over things that I eventually realize are quite unimportant. (True)
89. I have sometimes made nasty remarks about a person, just because people around were doing so. (True)
90. When I find things, I always give them back to their owner, even if I would like very much to keep them. (False)
91. I am always careful with what belongs to others, even if it belongs to someone I dislike very much. (False)
92. I always apologize when I have been rude or discourteous. (False)
93. I am just as polite at home as when I am out in company. (False)
94. I sometimes try to get in good with superior ("apple polish") in order to gain an advantage for myself. (True)
95. I have always obeyed the law. (False)
96. When people ask me about things I do not really understand, I am always willing to admit my ignorance. (False)
97. I always feel sorry for someone falling ill or having a similar misfortune. (False)
98. I have sometimes hated a person so much that I have had a momentary impulse to kill him. (True)
99. I have sometimes kept books as my own which I have borrowed from the library, when the record has been lost. (True)
100. I have always played absolutely fair in games. (False)
101. As a child, I almost always obeyed my parents. (False)

102. I require proof before believing a person guilty of something.  
(False)
103. I always admit it when I am wrong. (False)
104. I always put in an honest day's work, when working for pay.  
(False)
105. I always stand by my friends. (False)
106. I get quite jealous, even of my best friends. (True)

Tests for Cognitive Factors -- V-5  
Advanced Vocabulary

107. rancor            1-forbearance 2-ridicule 3-malice 4-bravery. (3)
108. raucous          1-empty 2-quiet 3-smooth 4-harsh . . . . . (4)
109. gargoyle        1-oil 2-medicine 3-carved waterspout  
4-ugly building . . . . . (3)
110. recrudescence 1-purify 2-renew activity 3-lack refine-  
ment 4-crush . . . . . (2)
111. specious        1-plausible, but not genuine 2-note-worthy  
3-class or variety 4-roomy . . . . . (1)
112. bauble          1-bubble 2-showy plaything 3-idle talk  
4-confusion . . . . . (2)
113. prolific        1-scarce 2-producing abundantly 3-reckless  
4-speaking profanely . . . . . (2)
114. opulent         1-party 2-wealthy 3-happy frame of mind  
4-semiprecious stone . . . . . (2)
115. coercion        1-conspiracy 2-strategy 3-restraint  
4-attraction . . . . . (3)
116. hiatus         1-animal 2-calamity 3-dread 4-gap . . . . . (4)
117. germane        1-microbe 2-contagious 3-relevant 4-  
different . . . . . (3)
118. perfunctory    1-fundamental 2-formal 3-superficial  
4-careful . . . . . (3)
119. diverge        1-reveal 2-chant 3-distract the attention  
of 4-differ or turn off from . . . . . (4)

120. evoke 1-take away 2-anger 3-connect 4-bring  
out . . . . . (4)
121. pertinent 1-relevant 2-lying next to 3-necessary  
4-bold . . . . . (1)
122. holocaust 1-entirety 2-destruction 3-saintly  
4-price . . . . . (2)
123. piquant 1-mellow 2-fish 3-pungent 4-cloth . . . . . (3)
124. firmament 1-foundation 2-heavens 3-strong 4-glue . . . . . (2)
125. bizarre 1-market 2-conventional 3-odd 4-  
imaginative . . . . . (3)
126. moral 1-ethical 2-esthetic 3-mental state  
4-weak . . . . . (1)
127. implacable 1-subdued 2-relieved 3-uncertain  
4-relentless . . . . . (4)
128. paradox 1-ornamental box 2-question 3-infectious  
disease 4-statement that says two opposite  
things . . . . . (4)
129. bigot 1-foreigner 2-cynic 3-intolerant person  
4-insect . . . . . (3)
130. sumptuous 1-luxurious 2-sweet 3-incredulous  
4-cheap . . . . . (1)
131. tacit 1-tactful 2-elaborately developed 3-  
unspoken but implied 4-clever . . . . . (3)
132. harbinger 1-forerunner 2-well-tailored 3-  
fortuneteller 4-port . . . . . (1)
133. panegyric 1-medicine 2-denunciation 3-sports event  
4-laudation . . . . . (4)
134. cryptic 1-grave 2-escape 3-hidden 4-  
pretentious . . . . . (3)
135. descried 1-described 2-scolded 3-saw 4-  
denounced . . . . . (3)
136. querulous 1-questioning 2-complaining 3-noisy  
4-agreeable . . . . . (2)
137. pecuniary 1-involving money 2-esthetic 3-trifling  
4-unusual . . . . . (1)



138. carnage      1-flower 2-small eagle 3-slaughter  
                     4-antique . . . . . (3)
139. subservient 1-arrogant 2-submissive 3-undermining  
                     4-unnecessary . . . . . (2)
140. trepidation 1-fear 2-watering 3-means of travel  
                     4-surgery . . . . . (1)
141. delineate    1-limit 2-straighten 3-omit  
                     4-depict . . . . . (4)
142. preponderance 1-statement 2-dominance 3-body of  
                     water 4-thoughtfulness . . . . . (2)

Bass Social Acquiescence Scale  
 (all items keyed "True")

1. Destroyers of tyranny have contributed the most to mankind.
2. What we win through authority we lose; what we win through our consideration we keep.
3. To be happy, always stay within the law.
4. Obedience is the mother of success.
5. Pity is the touch of God in human hearts.
6. Sleep is loved by everyone.
7. The only known cure for fear is faith.
8. Happiness must be won through great effort.
9. Giving is always better than receiving.
10. Only a statue's feelings are not easily hurt.
11. The feeling of a friendship is like that of being comfortably filled with roast beef.
12. Love of the opposite sex makes the world go round.
13. The grass is always greener in the other fellow's yard.
14. Every man is blind to his own defects.
15. Next to love sympathy is the most divine passion of the human heart.

16. There is no satisfaction without a companion to share it.
17. Most big cows have little horns.
18. Seeing is believing.
19. We like best what lies beyond our reach.
20. Wild colts make good horses.
21. The restless sleeper blames the couch.
22. The greatest of fortunes are for those who leave the common path and blaze a new trail for themselves.
23. Love is the greatest of the Arts.
24. Make yourself honey and the flies will eat you.
25. Amusement is the medicine for worry.
26. One false friend can do more harm than one hundred enemies.
27. Still water runs deep.
28. Never trust a flatterer.
29. Count your sheep and the wolf will eat them.
30. Sweet is the sleep of the man with virtue.
31. You can't teach an old dog new tricks.
32. Better one safe way than a hundred on which you are not sure.
33. Life is a struggle from beginning to end.
34. No principle is more noble or holy than that of true obedience.
35. He who laughs last laughs longest.
36. He conquers all who conquers himself.
37. One should feel the failures of his friends as if the failures were his own.
38. Empty heads go with loud talk.
39. He that has many friends need never fear disaster.
40. They never fail who die in a great cause.

41. You only injure yourself when you take notice of despised critics.
42. 'Tis vain to quarrel with your destiny.
43. A sense of duty is the basis of character.
44. Stay away from the proud man who is ashamed to weep.
45. Our chief want in life is someone who will make us do what we can.
46. Who does not love the opposite sex remains a fool the whole life long.
47. Success against odds is the greatest of American ideals.
48. He that loses his conscience has nothing left that is worth keeping.
49. Those in high places are in greater danger than those in low places.
50. Virtue is a struggle in which we overcome our weaknesses.
51. No gift is more precious than good advice.
52. It is difficult to do excellent work without great strain.
53. There is nothing which the body suffers which the soul may not profit by.
54. You should give more than you want to give.
55. The victory always remains with those who admire rather than with those who criticize.

Minnesota Multiphasic Personality Inventory  
Mf Scale

56. I like mechanics magazines. (False)
57. I think I would like the work of a librarian. (True)
58. When I take a new job, I like to be tipped off on who should be gotten next to. (False)
59. I would like to be a singer. (True)
60. I feel that it is certainly best to keep my mouth shut when I'm in trouble. (False)
61. When someone does me a wrong I feel I should pay him back if I

- can, just for the principle of the thing. (False)
62. I am very strongly attracted by members of my own sex. (False)
63. I used to like drop-the-handkerchief. (True)
64. I have often wished I were a girl. (Or if you are a girl) I have never been sorry that I am a girl. (True)
65. I enjoy reading love stories. (True)
66. I like poetry. (True)
67. My feelings are not easily hurt. (False)
68. I sometimes tease animals. (False)
69. I think I would like the kind of work a forest ranger does. (False)
70. I would like to be a florist. (True)
71. It takes a lot of argument to convince most people of the truth. (False)
72. I would like to be a nurse. (True)
73. I like to go to parties and other affairs where there is lots of loud fun. (False)
74. I frequently find it necessary to stand up for what I think is right. (False)
75. I believe in a life hereafter. (False)
76. I enjoy a race or game better when I bet on it. (False)
77. Most people are honest chiefly through fear of being caught. (False)
78. My table manners are not quite as good at home as when I am out in company. (False)
79. I like dramatics. (True)
80. I like collecting flowers or growing house plants. (True)
81. I have never indulged in any unusual sex practices. (False -- for male; True -- for female)
82. At times my thoughts have raced ahead faster than I could speak them. (True)
83. I like to cook. (True)

84. I would like to be a soldier. (False)
85. I used to keep a diary. (True)
86. I do not have a great fear of snakes. (False)
87. I am worried about sex matters. (True -- for male; False -- for female)
88. My hands have not become clumsy or awkward. (True)
89. I daydream very little. (False)
90. If I were a reporter I would very much like to report news of the theater. (True)
91. I would like to be a journalist. (True -- male only)
92. At times it has been impossible for me to keep from stealing or shoplifting something. (True -- female only)
93. In walking I am very careful to step over sidewalk cracks. (False)
94. I have never had any breaking out on my skin that has worried me. (False)
95. I frequently find myself worrying about something. (True)
96. I think I would like the work of a building contractor. (False)
97. I like science. (False)
98. I very much like hunting. (False -- male only)
99. My parents have often objected to the kind of people I went around with. (False -- female only)
100. Some of my family have habits that bother and annoy me very much. (True)
101. I should like to belong to several clubs or lodges. (False)
102. I like to talk about sex. (True -- for male; False, for female)
103. I have been disappointed in love. (True)
104. I believe there is a Devil and a Hell in afterlife. (False)
105. I like to be with a crowd who play jokes on one another. (False)
106. I was a slow learner in school. (False)

- 107. If I were an artist I would like to draw flowers. (True)
- 108. It does not bother me that I am not better looking. (False)
- 109. I am entirely self-confident. (False)
- 110. I have often felt that strangers were looking at me critically. (True)
- 111. Most people make friends because friends are likely to be useful to them. (False)
- 112. Once in a while I feel hate toward members of my family whom I usually love. (True)
- 113. If I were a reporter I would very much like to report sporting news. (False)
- 114. I liked "Alice in Wonderland" by Lewis Carrell. (True)
- 115. I wish I were not bothered by thoughts about sex. (True -- for male; False -- for female)
- 116. I think that I feel more intensely than most people do. (True)
- 117. There never was a time in my life when I liked to play with dolls. (False)

#### Barron Ego-Strength Scale

- 118. I have a good appetite. (True)
- 119. I have diarrhea once a month or more. (False)
- 120. At times I have fits of laughing and crying that I cannot control. (False)
- 121. I find it hard to keep my mind on a task or job. (False)
- 122. I have had very peculiar and strange experiences. (False)
- 123. I have a cough most of the time. (False)
- 124. I seldom worry about my health. (True)
- 125. My sleep is fitful and disturbed. (False)
- 126. When I am with people I am bothered by hearing very queer things. (False)

- 127. I am in just as good physical health as most of my friends.  
(True)
- 128. Everything is turning out just like the prophets of the Bible said it would. (False)
- 129. Parts of my body often have feelings like burning, tingling, crawling, or like "going to sleep." (False)
- 130. I am easily downed in an argument. (False)
- 131. I do many things which I regret afterwards (I regret things more often than others seem to.) (False)
- 132. I go to church almost every week. (True)
- 133. I have met problems so full of possibilities that I have been unable to make up my mind about them. (False)
- 134. Some people are so bossy that I feel like doing the opposite of what they request, even though I know they are right. (True)
- 135. I like collecting flowers or growing house plants. (False)
- 136. I like to cook. (False)
- 137. During the past few years I have been well most of the time.  
(True)
- 138. I have never had a fainting spell. (True)
- 139. When I get bored I like to stir up some excitement. (True)
- 140. My hands have not become clumsy or awkward. (True)
- 141. I feel weak all over much of the time. (False)
- 142. I have had no difficulty in keeping my balance in walking. (True)
- 143. I like to flirt. (True)
- 144. I believe my sins are unpardonable. (False)
- 145. I frequently find myself worrying about something. (False)
- 146. I like science. (True)
- 147. I like to talk about sex. (True)
- 148. I get mad easily and then get over it soon. (True)
- 149. I brood a great deal. (False)

150. I dream frequently about things that are best kept to myself.  
(False)
151. My way of doing things is apt to be misunderstood by others.  
(False)
152. I have had blank spells in which my activities were interrupted  
and I did not know what was going on around me. (False)
153. I can be friendly with people who do things which I consider  
wrong. (True)
154. If I were an artist I would like to draw flowers. (False)
155. When I leave home I do not worry about whether the door is locked  
and the windows closed. (True)
156. At times I hear so well it bothers me. (False)
157. Often I cross the street in order not to meet someone I see.  
(False)
158. I have strange and peculiar thoughts. (False)
159. Sometimes I enjoy hurting persons I love. (True)
160. Sometimes some unimportant thought will run through my mind and  
bother me for days. (False)
161. I am not afraid of fire. (True)
162. I do not like to see women smoke. (False)
163. When someone says silly or ignorant things about something I know  
about, I try to set him right. (True)
164. I feel unable to tell anyone all about myself. (False)
165. My plans have frequently seemed so full of difficulties that I  
have had to give them up. (False)
166. I would certainly enjoy beating a crook at his own game. (True)
167. I have had some very unusual religious experiences. (False)
168. One or more members of my family is very nervous. (True)
169. I am attracted by members of the opposite sex. (True)
170. The man who had most to do with me when I was a child (such as my  
father, stepfather, etc.) was very strict with me. (True)
171. Christ performed miracles such as changing water into wine. (False)



- 172. I pray several times every week. (False)
- 173. I feel sympathetic towards people who tend to hang on to their griefs and troubles. (False)
- 174. I am afraid of finding myself in a closet or small closed place. (False)
- 175. Dirt frightens or disgusts me. (False)
- 176. I think Lincoln was greater than Washington. (True)
- 177. In my home we have always had the ordinary necessities (such as enough food, clothing, etc.) (True)
- 178. I am made nervous by certain animals. (False)
- 179. My skin seems to be unusually sensitive to touch. (False)
- 180. I feel tired a good deal of the time. (False)
- 181. I never attend a sexy show if I can avoid it. (False)
- 182. If I were an artist I would like to draw children. (False)
- 183. I sometimes feel that I am about to go to pieces. (False)
- 184. I have often been frightened in the middle of the night. (False)
- 185. I very much like horseback riding. (False)

Edwards Personal Preference Schedule  
Aggression Scale

(Items 186-199 keyed A; items 200-213 keyed B.)

- 186. A. I like to read newspaper accounts of murders and other forms of violence.  
B. I would like to write a great novel or play.
- 187. A. I feel like getting revenge when someone has insulted me.  
B. When I am in a group, I like to accept the leadership of someone else in deciding what the group is going to do.
- 188. A. I like to tell other people what I think of them.  
B. I like to have my meals organized and a definite time set aside for eating.
- 189. A. I feel like blaming others when things go wrong for me.  
B. I like to ask questions which I know no one will be able to answer.

190. A. I get so angry that I feel like throwing and breaking things.  
B. I like to avoid responsibilities and obligations.
191. A. I like to attack points of view that are contrary to mine.  
B. I like to write letters to my friends.
192. A. I feel like making fun of people who do things that I regard as stupid.  
B. I like to predict how my friends will act in various situations.
193. A. I feel like criticizing someone publicly if he deserves it.  
B. I like my friends to make a fuss over me when I am hurt or sick.
194. A. I get so angry that I feel like throwing and breaking things.  
B. I like to tell other people how to do their jobs.
195. A. I feel like blaming others when things go wrong for me.  
B. I feel that I am inferior to others in most respects.
196. A. I like to attack points of view that are contrary to mine.  
B. I like my friends to confide in me and tell me their troubles.
197. A. I feel like telling other people off when I disagree with them.  
B. I like to participate in new fads and fashions.
198. A. I like to tell other people what I think of them.  
B. I like to avoid being interrupted while at my work.
199. A. I feel like making fun of people who do things that I regard as stupid.  
B. I like to listen to or to tell jokes in which sex plays a major part.
200. A. I would like to write a great novel or play.  
B. I like to attack points of view that are contrary to mine.
201. A. When I am in a group, I like to accept the leadership of someone else in deciding what the group is going to do.  
B. I feel like criticizing someone publicly if he deserves it.
202. A. I like to have my life so arranged that it runs smoothly and without much change in my plans.  
B. I get so angry that I feel like throwing and breaking things.
203. A. I like to ask questions which I know no one will be able to answer.  
B. I like to tell other people what I think of them.
204. A. I like to avoid responsibilities and obligations.

- B. I feel like making fun of people who do things that I regard as stupid.
205. A. I like to write letters to my friends.  
B. I like to read newspaper accounts of murders and other forms of violence.
206. A. I like to predict how my friends will act in various situations.  
B. I like to attack points of view that are contrary to mine.
207. A. I like my friends to make a fuss over me when I am hurt or sick.  
B. I feel like blaming others when things go wrong for me.
208. A. I like to tell other people how to do their jobs.  
B. I feel like getting revenge when someone has insulted me.
209. A. I feel that I am inferior to others in most respects.  
B. I feel like telling other people off when I disagree with them.
210. A. I like my friends to confide in me and to tell me their troubles.  
B. I like to read newspaper accounts of murders and other forms of violence.
211. A. I like to participate in new fads and fashions.  
B. I feel like criticizing someone publicly if he deserves it.
212. A. I like to avoid being interrupted while at my work.  
B. I feel like telling other people off when I disagree with them.
213. A. I like to listen to or to tell jokes in which sex plays a major part.  
B. I feel like getting revenge when someone has insulted me.

## APPENDIX B

### TESTS INSTRUCTIONS

#### Part I

Instructions for: Taylor Manifest Anxiety Scale  
MMPI I Scale  
Cattell's Anxiety Test

Do not write or mark on this booklet in any way. Your answer to the statements in this inventory are to be recorded only on the separate Answer Sheet.

The statements in this booklet represent experiences, ways of doing things, or beliefs or preferences that are true of some people but are not true of others. Read each statement and decide whether or not it is true with respect to yourself. If it is true or mostly true, blacken the answer space in column T on the Answer Sheet in the row numbered the same as the statement you are answering. If the statement is not usually true or is not true at all, blacken the space in column F in the numbered row. Answer the statements as carefully and honestly as you can. There are no correct or wrong answers. We are interested in the way you work and in the things you believe. Sometimes it may be difficult to make a decision, but please answer every item either true or false without skipping any.

REMEMBER: mark the answer space in column T if the statement is true or mostly true; mark the answer space in column F if the statement is false or mostly false. Be sure the space you blacken is in the row numbered the same as the item you are answering. Mark each item as you come to it; be sure to mark one and only one answer space for each item.

#### Instructions for: Vocabulary Test

This is a test of your knowledge of word meanings. Look at the sample below. One of the four numbered words has the same meaning or nearly the same meaning as the word at the left. Indicate your answer by writing, in the parentheses at the right, the number of the word that you select.

attempt            1-run   2-hate   3-try   4-stop . . . . . (3)

The answer to the item is number 3; you should have a "3" written in the parentheses.

Your score will be the number marked correctly minus a fraction of the number marked incorrectly. Therefore, it will not be to your advantage to guess unless you are able to eliminate one or more of the answer choices as wrong.

You will have 4 minutes for each of the two parts of this test. Each part has one page. When you have finished Part I, STOP. Please do not go on to Part II until you are asked to do so.

## Part II

Instructions for: Bass Social Acquiescence Scale  
MMPI Mf Scale  
Barron Ego Strength Scale

Read each statement below and decide whether it is true as applied to you or false as applied to you. If a statement is TRUE or MOSTLY TRUE as applied to you, blacken between the lines in the column headed 1. If a statement is FALSE or NOT USUALLY TRUE as applied to you, blacken between the lines in the column headed 2. If a statement does not apply to you or it is something that you don't know about, make no mark on your answer sheet. Remember to give YOUR OWN opinion. Do not leave any blank spaces if you can avoid it.

### Instructions for: EPPS Aggression Scale

This schedule consists of a number of pairs of statements about things that you may or may not like; about ways in which you may or may not feel.

- A. I like to talk about myself to others.
- B. I like to work toward some goal that I have set for myself.

Which of these two statements is more characteristic of what you like? If you like "talking about yourself to others" more than you like "working toward some goal that you have set for yourself," then you should choose A over B. If you like "working toward some goal that you have set for yourself" more than you like "talking about yourself to others," then you should choose B over A.

You may like both A and B. In this case, you would have to choose between the two and you should choose the one that you like better. If you dislike both A and B, then you should choose the one that you dislike less.

For each numbered item, blacken between the lines in the column headed 1 for A, and the column headed 2 for B.

## APPENDIX C

### THE TWO FACTOR INDEX OF SOCIAL POSITION

#### A. The Occupational Scale

1. Higher Executives, Proprietors of Large Concerns, and Major Professionals.

a. Higher Executives

Bank Presidents; Vice-Presidents

Judges (Superior Courts)

Large Business, e.g.

Directors, Presidents,

Vice-Presidents,

Assistant Vice-President,

Executive Secretary,

Treasurer.

Military, Commissioned Officers,

Major and above,

Officials of the Executive Branch

of Government, Federal, State,

Local, e.g.,

Mayor, City Manager, City Plan Director,

Internal Revenue Directors.

Research Directors, Large Firms

b. Large Proprietors(Value over \$100,000)

Brokers

Dairy Owners

Contractors

Lumber Dealers

c. Major Professionals

Accountants (C.P.A.)

Economists

Actuaries

Engineers (College Grad.)

Agronomists

Foresters

Architects

Geologists

Artists, Portrait

Lawyers

Astronomers

Metallurgists

Auditors

Physicians

Bacteriologists

Physicists, Research

Chemical Engineers

Psychologists, Practicing

Chemists

Symphony Conductor

Clergyman (Professionally Trained)

Dentists

Teachers, University, College

Veterinarians, (Veterinary Surgeons)

2. Business Managers, Proprietors of Medium Sized Business, and Lesser Professionals.

a. Business Managers in Large Concerns.

Advertising Directors	Office Managers
Branch Managers	Personnel Managers
Brokerage Salesmen	Police Chief; Sheriff
District Managers	Postmaster
Executive Assistants	Production Managers
Executive Managers,	Sales Engineers
Govt. Officials,	Sales Managers, National Concerns
minor, e.g.,	Sales Managers (Over \$100,000)
Internal Revenue Agents	
Farm Managers	

b. Proprietors of Medium Businesses (Value \$35,000 - \$100,000)

Advertising Owners	Manufacturer's Representatives
Clothing Store Owners	Poultry Business
Contractors	Purchasing Managers
Express Company Owners	Real Estate Brokers
Fruits, Wholesale	Rug Business
Furniture Business	Store Owners
Jewelers	Theater Owners
Labor Relations Consultants	

c. Lesser Professionals

Accountants (Not C.P.A.)	Military, Commissioned Officers,
Chiropodists	Lts., Captains
Chiropractors	Musicians (Symphony Orchestra)
Correction Officers	Nurses
Director, Community House	Opticians
Engineers (Not College Grad.)	Pharmacists
Finance Writers	Public Health Officers (M.P.H.)
Health Educators	Research Assistants, University
Librarians	(Full-time)
	Teachers (Elementary and High)

3. Administrative Personnel, Small Independent Businesses, and Minor Professionals.

a. Administrative Personnel

Adjusters, Insurance	Sales Representatives
Advertising Agents	Section Heads, Federal, State,
Chief Clerks	and Local Govt. Offices
Credit Managers	Section Heads, Large Businesses
Insurance Agents	and Industries
Managers, Dept. Stores	Service Managers
Passenger Agents -- R. R.	Shop Managers
Private Secretaries	Store Managers (Chain)
Purchasing Agents	Traffic Managers

b. Small Business Owners (\$6,000-\$35,000)

Art Gallery	Gas Station
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Auto Accessories	Glassware
Awnings	Grocery-General
Bakery	Hotel Proprietors
Beauty Shop	Inst. of Music
Boatyard	Jewelry
Brokerage, Insurance	Machinery Brokers
Car Dealers	Manufacturing
Cattle Dealers	Monuments
Cigarette Machines	Package Store (Liquor)
Cleaning Shops	Painting Contracting
Clothing	Plumbing
Coal Businesses	Poultry Producers
Convalescent Homes	Publicity and Public Relations
Decorating	Real Estate
Dog Supplies	Records and Radios
Dry Goods	Restaurant
Electrical Contractors	Roofing Contractor
Engraving Business	Shoe
Feed	Shoe Repair
Finance Co., Local	Signs
Fire Extinguishers	Tavern
Five and Ten	Taxi Company
Florist	Tire Shop
Food Equipment	Trucking
Food Products	Trucks and Tractors
Foundry	Upholstery
Funeral Directors	Wholesale Outlets
Furniture	Window Shades
Garage	

c. Semi-Professionals

Actors and Showmen	Morticians
Army M/Sgt; Navy C.P.O.	Oral Hygienists
Artists, Commercial	Photographers
Appraisers (Estimators)	Physio-therapists
Clergymen (Not Professionally Trained)	Piano Teachers
Concern Managers	Radio, T.V. Announcers
Deputy Sheriffs	Reporters, Newspaper
Dispatchers, R. R. Train	Reporters, Court
I.B.M. Programmers	Surveyors
Interior Decorators	Title Searchers
Interpreters, Court	Tool Designers
Laboratory Assistant	Travel Agents
Landscape Planners	Yard Masters, R. R.

d. Farmers

Farm Owners (\$25,000-\$35,000)

4. Clerical and Sales Workers, Technicians, and Owners of Little Business. (Value under \$6,000)

a. Clerical and Sales Workers

Bank Clerks and Tellers	Factory Storekeeper
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Bill Collectors  
 Bookkeepers  
 Business Machine Operators,  
     Offices  
 Claims Examiners  
 Clerical or Stenographic  
 Conductors, R. R.  
 Employment Interviewers

Factory Supervisor  
 Post Office Clerks  
 Route Managers (Salesmen)  
 Sales Clerks  
 Shipping Clerks  
 Supervisors, Utilities,  
     Factories  
 Toll Station Supervisors  
 Warehouse Clerks

b. Technicians

Camp Counselors  
 Dental Technicians  
 Draftsmen  
 Driving Teachers  
 Expeditors, Factory  
 Experimental Tester  
 Instructors, Telephone Co.,  
     Factory  
 Inspectors, Weights,  
     Sanitary Inspectors,  
     R. R., Factory  
 Investigators

Laboratory Technicians  
 Locomotive Engineers  
 Operators, P.B.X.  
 Proofreaders  
 Safety Supervisors  
 Supervisors of Maintenance  
 Technical Assistants  
 Telephone Co. Supervisors  
 Timekeepers  
 Tower Operators, R. R.  
 Truck Dispatchers  
 Window Trimmers (Store)

c. Owners of Little Business

Flower Shop (\$3,000 - \$6,000)      Tailor Shop (\$3,000 - \$6,000)  
 Newsstand (\$3,000 - \$6,000)

d. Farmers

Owners (\$10,000 - \$20,000)

5. Skilled Manual Employees

Adjusters, Typewriter  
 Auto Body Repairers  
 Bakers  
 Barbers  
 Blacksmiths  
 Bookbinders  
 Boilermakers  
 Brakemen, R. R.  
 Brewers  
 Bulldozer Operators  
 Butchers  
 Cabinet Makers  
 Carpenters  
 Casters (Founders)  
 Cement Finishers  
 Cheese Makers  
 Chefs  
 Compositors  
 Diemakers  
 Diesel Engine Repair and  
     Maintenance (Trained)

Firemen, R. R.  
 Foremen, Construction, Dairy  
 Gardeners, Landscape (Trained)  
 Glassblowers  
 Glaziers  
 Gunsmiths  
 Gauge Makers  
 Hair Stylists  
 Heat Treaters  
 Horticulturists  
 Lineman, Utility  
 Linoleum Layers (Trained)  
 Linotype Operators  
 Lithographers  
 Locksmiths  
 Loom Fixers  
 Lumberjacks  
 Machinists (Trained)  
 Maintenance Foremen  
 Installers, Electrical Appliances  
 Masons

Masseurs  
 Mechanics (Trained)  
 Millwrights  
 Moulders (Trained)  
 Painters  
 Paperhangers  
 Patrolmen, R. R.  
 Pattern and Model Makers  
 Piano Builders  
 Piano Tuners  
 Plumbers  
 Policemen, City  
 Postmen  
 Printers  
 Radio, T.V. Maintenance  
 Repairmen, Home Appliances  
 Riggers  
 Rope Splicers

Sheetmetal Workers (Trained)  
 Shipsmiths  
 Shoe Repairmen (Trained)  
 Stationary Engineers (Licensed)  
 Stewards, Club  
 Switchmen, R. R.  
 Tailors, (Trained)  
 Teletype Operators  
 Toolmakers  
 Track Supervisors, R. R.  
 Tractor-Trailer Trans.  
 Typographers  
 Upholsterers (Trained)  
 Watchmakers  
 Weavers  
 Welders  
 Yard Supervisors, R. R.

Small Farmers

Owners (under \$10,000)  
 Tenants who own farm equipment

6. Machine Operators and Semi-Skilled Employees

Aides, Hospital	Meter Readers
Apprentices, Electricians,	Operators, Factory Machines
Printers, Steamfitters,	Oiler, R. R.
Toolmakers	Paper Rolling Machine Operators
Assembly Line Workers	Photostat Machine Operators
Bartenders	Practical Nurses
Bingo Tenders	Pressers, Clothing
Building Superintendents	Pump Operators
(Cust.)	Receivers and Checkers
Bus Drivers	Roofers
Checkers	Set-up Men, Factories
Clay Cutters	Shapers
Coin Machine Fillers	Signmen, R. R.
Cooks, Short Order	Solderers, Factory
Delivery Men	Sprayers, Paint
Dressmakers, Machine	Steelworkers, (Not Skilled)
Drill Press Operators	Stranders, Wire Machines
Duplicator Machine Operators	Strippers, Rubber Factory
Elevator Operators	Taxi Drivers
Enlisted Men, Military Service	Testers
Fliers, Benders, Buffers	Timers
Foundry Workers	Tire Moulders
Garage and Gas Station Assistants	Trainmen, R. R.
Greenhouse Workers	Truck Drivers, General
Guards, Doorkeepers, Watchmen	Waiters-Waitresses ("Better
Hairdressers	Places")
Housekeepers	Weighers
Meat Cutters and Packers	Welders, Spot

Winders, Machine  
Wiredrawers, Machine  
Wine Bottlers

Wood Workers, Machine  
Wrappers, Stores and Factories

#### Farmers

Smaller Tenants who own little equipment.

#### 7. Unskilled Employees

Amusement Park Workers	Laundry Workers
(Bowling Alleys, Pool Rooms)	Messengers
Ash Removers	Platform Men, R. R.
Attendants, Parking Lots	Peddlers
Cafeteria Workers	Porters
Car Cleaners, R. R.	Roofer's Helpers
Car Helpers, R. R.	Shirt Folders
Carriers, Coal	Shoe Shiners
Counter men	Sorters, Rag and Salvage
Dairy Workers	Stagehands
Deck Hands	Stevedores
Domestics	Stock Handlers
Farm Helpers	Street Cleansers
Fishermen (Clam Diggers)	Unskilled Factory Workers
Freight Handlers	Truckmen, R. R.
Garbage Collectors	Waitresses—"Hash Houses"
Grave Diggers	Washers, Cars
Hod Carriers	Window Cleaners
Hog Killers	Woodchoppers
Hospital Workers, Unspecified	
Hostlers, R. R.	Relief, Public, Private
Janitors, Sweepers	
Laborers, Construction	Unemployed (No Occupation)
Laborers, Unspecified	

#### Farmers

Share Croppers

### B. The Educational Scale

1. Graduate Professional Training
2. Standard College or University Graduation
3. Partial College Training
4. High School Graduates
5. Partial High School (complete tenth or eleventh grade)
6. Junior High School (complete seventh through the ninth grade)
7. Less than Seven Years of School

#### Integration of Two Factors

The factors of Occupation and Education are combined by weighing the individual scores obtained from the scale positions. The weights for each factor were determined by multiple correlation techniques. The weight for each factor is:

<u>Factor</u>	<u>Factor weight</u>
Occupation	7
Education	4

To calculate the Index of Social Position score for an individual, scale value for Occupation is multiplied by the factor weight for Occupation, and the scale value for Education is multiplied by the factor weight for Education. Both are added to give the Index.

#### Index of Social Position Scores

The Two Factor Index of Social Position Scores may be arranged on a continuum, or divided into groups of scores. The range of scores on a continuum is from a low of 11 to a high of 77. For some purposes a researcher may desire to work with a continuum of scores. For other purposes he may desire to break the continuum into a hierarchy of score groups.

The author has found the most meaningful breaks for the purpose of predicting the social class position of an individual or of a nuclear family is as follows:

<u>Social Class</u>	<u>Range of Computed Scores</u>
I	11-17
II	18-27
III	28-43
IV	44-60
V	61-77

VITA

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Doctor of Philosophy

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Major Field: Psychology

Biographical:

Personal Data: Born in Jerusalem, Israel, March 6, 1934, the son of Moses and Yocheved Frenkel.

Education: Received a Teachers' Diploma from Levinsky Teachers' College, Tel-Aviv, Israel, in June, 1953; studied for the Bachelor of Arts degree at the Hebrew University in Jerusalem, with a major in Education and Sociology; received the Master of Science degree from Yeshiva University in New York with a major in Psychology, in June, 1960; completed the requirements for the Doctor of Philosophy degree in May, 1966.

Professional Experience: Intern in clinical psychology for New York State at Willowbrook State School, Staten Island, New York, 1960; staff psychologist and research associate at the Jewish Chronic Disease Hospital in Brooklyn, New York, 1961; staff psychologist at the Adult Psychiatry Clinic, Indiana Medical Center in Indianapolis, 1962; graduate teaching assistant at Oklahoma State University, from September, 1963 to present.

Professional organizations: Member of Psi Chi, national honor society in psychology; associate member of the American Psychological Association; member of the Eastern Psychological Association; member of the Indiana Psychological Association.