RACIAL (BLACK-WHITE) VARIABILITY FOR COLLEGE STUDENTS ON THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

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Although several experimenters have conducted studies using the Minnesota Multiphasic Personality Inventory to test for racial differences, none have been executed using a non-custodial, integrated setting. The purpose of this study was to determine if there were significant differences between Black and white students on the Minnesota Multiphasic Personality Inventory in an integrated university, and to determine if these differences are consistent with findings in past research. In this study, socio-economic status, which has been suspected as the cause for racial variability, was statistically controlled. All previous studies have reached similar conclusions; there were significant differences because Blacks generally score higher than whites on certain scales. There seems to be little consistency in past findings, because these differences do not appear on the same scales.

The sample in this study consisted of one hundred and forty-nine (N = 149) undergraduate students attending summer school at North Texas State University in 1972: fifty-eight Blacks, 31 males and 27 females; ninety-one whites, 45 males and 46 females. These subjects were
randomly selected from a university roster of Texas residents and asked to complete voluntarily a Minnesota Multiphasic Personality Inventory. Socio-economic status was calculated by adding weighted scores for paternal occupation and level of educational achievement. Schneider and Lysgaard's classification scheme and the Minnesota Multiphasic Personality Inventory were administered and scored over a period of two weeks. Statistical treatment was performed on non-K corrected profiles by North Texas State University Computer Center.

The T-score means for all groups were computed and analyzed, using a one-way analysis of co-variance. This statistical procedure was used because it statistically controlled for socio-economic status. The level of confidence for acceptance of all hypotheses was established as .05. Since racial variability on the Minnesota Multiphasic Personality Inventory has previously been attributed to different levels of socio-economic status, statistically controlling for this variable was highly desirable. Three major comparisons were made: Black students were compared to white students; Black males were compared to white males; Black females were compared to white females. The three racial groupings were compared on all thirteen basic Minnesota Multiphasic Personality Inventory scales.

There was more homogeneity among the sample of students used in this study than was expected. It was suspected
that the Black samples were not typical of their racial group because they were basically middle class; as such, they were more pressed to remove differences between themselves and their white counterparts. Data for this study were gathered during a summer session, and it was also suspected that as a group these students were similarly motivated, especially toward educational goals. As a result, there was greater similarity between racial samples, and this was reflected in fewer significant differences than were hypothesized.

The final analysis of this study showed that Black students scored significantly higher than white students on scales F and 4. Black males scored significantly higher than white males on scale F. White males scored significantly higher than Black males on scale 3. Black females scored significantly higher than white females on scales 3, 4, 9, and 0.

It may be concluded that the differences found in this study were the result of different socio-cultural patterns operating within each group. The combined racial groups were significantly different only on scales F and 4 of the MMPI. While differences of great magnitude have been observed in the past, they were for different scales. Those significant differences which were unexpectedly found indicated a socio-cultural origin.
It was recommended that future investigations be directed toward identifying the socio-cultural dictates which cause racial variability on the Minnesota Multiphasic Personality Inventory.
RACIAL (BLACK-WHITE) VARIABILITY FOR COLLEGE STUDENTS ON THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

THESIS

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements For the Degree of

MASTER OF SCIENCE

By

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CHAPTER I

INTRODUCTION

The existence of significant differences between Blacks and whites in relation to a variable such as personality has been widely debated. In a study executed in 1967, H. Harrison and E. Kass (7) discussed the conceptual orientation, which was basic to the work of O. Klineberg (11), concerning differences in the intellectual functioning of Blacks and whites. Recognition of this difference and implementation of research to obtain empirical evidence as to the nature of this difference are not new ideas. In 1944, in his book *Characteristics of the American Negro*, Klineberg (12) advanced the idea that such variables as I. Q. and personality differences result from environmental factors such as education, socio-economic status, and geographical location. Much of the subsequent research on the nature of racial differences in performance on psychological tests followed this conceptual framework.

In 1967, Harrison and Kass (7) pointed out that the investigation of these significant racial differences had emotional implications for many people. For example, many studies were conducted in order to prove the superiority or inferiority of one group or to prove the extent of suffering of one group at the hands of the other as was the case in
the personality study of A. Kardiner and L. Ovesey (10) which was reported in *The Mark of Oppression* in 1951. Other studies were conducted in order to discover and describe racial differences and the ramifications of these differences. It is the latter objective that spurred the bulk of the research in this area. Researchers with this objective have developed an orientation toward not ignoring known racial differences on psychological tests, as did many past researchers whose investigations were often oriented toward proving or minimizing racial superiority, oppression, or both.

Studies comparing MMPI profile differences between categorical groups within the American culture have obtained inconsistent and often contradictory results. The investigation of racial differences on the MMPI is no exception. Personality theorists have emphasized that personality development is heavily influenced by the culture, subculture, or an amalgamation of different cultures with which an individual is associated. Social scientists have long advanced the theory that a Black subculture exists, the Black subculture being subordinate and less intact than the more dominant white culture. On the other hand, many Blacks have advanced the idea that the white culture is not dominant to any degree, rather it is viewed as such by the white culture. Other Blacks have leveled charges of ethnocentrism at many whites for using the prefix "sub" when referring to Black culture
in the United States. Whether there is any efficacy in trying to ascertain to what extent a cultural division is dominant over persons outside its own group seems hypothetical at best. Advocates of each point of view do however agree that there are distinct differences between the two racial groups in performance on psychological tests.

Many investigative studies have failed to control adequately the variables that exert some known, but not fully understood, effects upon variations in MMPI profiles. Variables such as geographical location, age, sex, educational attainment, and socio-economic level have been inadequately controlled or not controlled at all, as was the case in several investigations of this controversy (2, 15, 16). The paucity of adequately controlled investigations which substantiate many claims concerning racial differences in MMPI profiles is very noticeable, and this deficiency is of particular concern to this author.

Harrison and Kass (7) explained that previous investigations into personality differences between Black and white Americans produced few, if any, striking differences between the two racial groups. In the light of what is known about the contrast of social environments of the two groups, this absence of significant differences is surprising. Blacks are confronted with personal and economic discrimination. They come from matriarchal families more often than whites (17), and their religious institutions and beliefs are often
different from those of the white majority (19). It stands to reason that, if these social variables influence personality development and if currently available tests are sensitive enough to differentiate between Black and white subjects, substantial racial differences should have been found regularly. However, these differences in personality test scores have not been consistently observed.

Four explanations of these findings were suggested:

1. Uncontrolled variables have minimized mean differences between groups of the compared samples and maximized variability within the groups.

2. The focus of most previous research has been on differences in the area of adjustment and psychopathology, which may not be marked in these tests.

3. The subjects in most of these studies have been middle-class Blacks and their white peers, but there is reason to believe that middle-class Blacks minimize their differences from whites.

4. The sensitivity of the tests used in these various studies to detect racial differences is open to question (17).

Most studies reviewed, e.g., Klineberg's in 1944, Dreger and Miller's in 1960, and McDonald and Gynther's in 1963, were controlled according to age and sex. These authors felt that those variables directly related to social class have been relatively well controlled. In 1963
R. McDonald and M. Gynther (15) conducted a parametric (sex X class X race) study in a segregated school system using high school seniors as subjects. Employing the MMPI as the test instrument, they found that social-class differences were not as pronounced as racial differences. Because I. Q. and education had not generally been controlled in personality studies, their absolute effects were not known. It might be expected, however, that their control could lessen rather than increase racial differences in test scores. There has been an inherent problem with these previous studies. The subjects have all come from groups such as patients or prisoners, high school or college students, but a true cross section or random subject selection has not been used. Karon's (11) study using the Tompkins-Horn Picture Arrangement Test was the only study that used a representative sampling procedure. Up to this point, the methods of sampling utilized by researchers had often restricted the generality and the regularity of racial differences that had been found.

In the areas of adjustment and psychopathology, moderate differences have been found. In at least three of nine past studies, Blacks were more elevated than whites on scales L, F, Hs, Sc, and Ma on the MMPI.

Limited ability to differentiate between racial groups has been demonstrated by the Bernreuter Personality Inventory and the Bell Adjustment Inventory (5). The only studies
showing racial differences of the expected magnitude, outside of the adjustment area, was Mussen's (16) work concerning lower-class boys. Mussen also found that fourteen of fifty Thematic Aperception Test content-analysis categories were related to racial differences. Using the Picture Aggangement Test, Karon (11) found that only thirteen of its scales reliably differentiated southern Blacks from whites. Dreger and Miller (5) produced even less impressive findings of racial differences in work with the Rosenzwig Picture Frustration Test. A subsequent study with the Allport-Vernon-Lindzey Study of Values, using college students as subjects, produced minimal differences.

The idea that middle-class Blacks tend to minimize differences between themselves and their white counterparts offers at least a partial explanation for the lack of apparent differences found in racial comparisons on psychological test scores. Lower-class people are not so greatly pressured to minimize differences between themselves and their white counterparts. Since only college students were involved with the Bernreuter Personality Inventory, the Bell Adjustment Inventory, and the Allport-Vernon-Lindzey Study of Values, it was not surprising that no specific racial differences were found. Using lower-class and lower-middle-class samples, the MMPI studies have produced moderate differences. Similar degrees of difference were found in Mussen's (16) study with lower-class boys.
It is possible that the tests are not sensitive enough. The items themselves may not be sufficiently discriminatory, or they may be combined on the scales in such a way as to conceal each other's effects. The result is that similar test scores may be achieved on an inventory such as the MMPI; it is possible, however, that Blacks and whites achieve these similar scores on different items.

In 1958, J. Kosa, L. Rachiele and S. Schommer (13) suggested that how individuals perform on psychological tests is significantly related to membership in large, complex groups, such as race and social class, and that this membership appears to be the determining factor in an individual's test performance. The existence of a Black subculture within the United States is hardly debatable. Rhetoric on this subject has most often concerned itself with the "hows" and the "whys" of this phenomena, but there is basic agreement that a Black subculture does not necessarily require an understanding of the historical process of its advent, nor does the recognition require an explanation of how this subculture, through a process of attrition and acculturation with the dominant white culture, will eventually be absorbed.

Past researchers (2, 7, 9) have indicated that there is some need for the development of appropriate norms for Blacks on the MMPI since this instrument is so widely used. Because of the demonstrated differences in Black and white MMPI profiles and the similarity in MMPI profiles for many
categorical groups within the Black population of the United States, such as adolescents, criminals, pregnant women, mental patients, and college students, the applicability of present norms to Black MMPI profiles is questionable. An increase in the use of the MMPI for counseling and research purposes with college populations makes it imperative that the effectiveness of this instrument be enhanced by application of appropriate norms to profiles obtained from the ever increasing Black student population on previously all white college campuses. However, it is of even more importance that variables which have known effects on MMPI profiles, such as age, social class, occupational status, sex, and race, be taken into consideration when the test is used.

Clarification of Terms Used in This Study

Definition of several terms somewhat uniquely employed in the present study are as follows:

**Black**: Persons of Negroid ancestry.

**MMPI**: Minnesota Multiphasic Personality Inventory.

**Racial (Black-white)**: Comparatively speaking, subjects who are designated Black for Negroid and white for Caucasian.

**Socio-economic Status (SES)**: The total of the two weighted scores from the Schneider and Lysgaard scale.

**White (white)**: Persons of Caucasian ancestry, including Mexican-Americans.
Purpose of the Study

Although the pertinent literature contains fifteen studies which have dealt directly with racial variability on the MMPI, to date only one study has been reported in the literature which utilized college students as subjects. The study by Butcher, Ball, and Ray (1), however, dealt exclusively with racially segregated college populations. There has been no study reported in the literature which investigated racial variance between Black and white college students attending an integrated university or college. The primary purpose of this study is to determine if significant racial variability on the MMPI exists in a racially integrated university or college. Another purpose of this study is to determine if significant racial variability on the MMPI exists in a racially integrated university when variables such as age, sex, SES, regional differences, institutional affiliation, and race are controlled through experimental design.

The methods of profile comparison have varied as broadly as have the variables controlled in past research. Comparative measures have ranged from

... comparisons of mean scale scores, percentage of scales elevated above a "T" score of 70, first scale score as per the categories of Haertzen and Hill (1959) (as modified by Ball, 1960), highest, second highest and two-digit codes, to an item analysis ... (3, p. 169)

making the comparability of findings from other related studies illogical if not statistically impossible. Research
has been conducted in many types of institutions and with diverse populations. Various studies have used subjects from mental hospitals, prisons, and educational institutions on both secondary and college levels.

The existence of a Black subculture distinct from the more dominant white culture has been posited as the source of racial variability on the MMPI. Researchers refer to this phenomenon as the socio-cultural variable. Some researchers (10) hold that through the acculturation process, that is racial interaction and association, these personality differences will diminish as measured by the MMPI.

Does racial variation in MMPI profiles resemble findings of another study which attributed racial variability to institutional affiliation? Is the variability in the same direction? The end result has been that each study used its own validity criteria as well as some but not necessarily all of these variables: race, SES, educational level, institutional setting, and regional differences. With the added problem of diverse methodological approaches, comparability of findings and their implications should be guardedly interpreted.

Hypotheses

Past studies of racial variability on the MMPI have yielded significant differences between samples. Black females and white females have differed significantly from each other on some scales of the MMPI, and so have Black
males and white males (1, 2, 3, 4).

In this study the following hypotheses were tested:

I. Black males will score significantly higher than white males on scales F, 4, 5, 6, and 9.

II. Black females will score significantly higher than white females on scales F, 8, and 0.

III. White females will score significantly higher than Black females on scales K and 1.

IV. The Black racial sample (males plus females) will score significantly higher than the white racial sample (males plus females) on scales L, F, K, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0.
CHAPTER BIBLIOGRAPHY


Previous investigations of racial (Black-white) differences on the MMPI have varied drastically in methodological procedure, populations sampled, data collected, experimental design, and the application of similar controls. At present, only contradictory or simplistic explanations for racial variability have been advanced.

Although previous studies purported to test statistically for differences attributable to race alone, some have variously disregarded such confounding factors as sex, education level, occupation, hospital status, socio-economic status (SES), employment status, age, I. Q., duration of illness, and marital status (3, p. 161).

According to An MMPI Handbook by W. G. Dahlstrom and G. S. Welsh (6), earlier investigations of racial differences on the MMPI have not yielded stable enough results and explanations to allow generalization. Fry (8) in 1949 found Black Pennsylvania prisoners scoring slightly lower on all clinical scales except scale 0. In 1954, M. G. Caldwell (4) studied young Black offenders in an Alabama prison. He found somewhat of an opposite trend to that of Fry in that Blacks were generally higher on the clinical scales. A study by Panton (19) using a North Carolina sample of prisoners was in general accord with the 1954 study by Caldwell. He, for instance, found that Blacks were significantly
higher on scales F, 6, 8, and 9; whites scored higher than Blacks on scale 3 and had a tendency to be higher on scale 4 than the Black counterpart in profile configuration. In 1959, Calden (3) studied patients in a Veterans' Administration hospital and found Blacks scoring higher on scales F, L, 4, 5, 8, and 9.

J. C. Ball (1) studied MMPI profile differences between Black and white ninth graders in two recently integrated public schools in a southern state. The author held that his study was designed to account for the effects of age, I. Q., broken homes, socio-economic status, academic achievement, and educational retardation upon personality. Concerning socio-economic status, Ball said Blacks predominately came from the lowest two of the seven classes on the Minnesota Parental Occupation Scale, while whites basically came from the highest five classes on that scale. He further explained that there were differences between Blacks and whites in their present level of scholastic achievement, with Blacks being ranked lower. On the I. Q. of sampled Blacks, he remarked, "The mean I. Q. of the Negro students is some ten points lower than that of sampled white students (1, p. 304)."

Findings indicated that Black girls tend to be withdrawn and candid in their test-approach attitudes, as reflected in low L and K scores and high F scores. Ball also felt that socio-economic status did not account primarily for the
major differences found; furthermore, higher scores on scale 2 for Black adolescent males was attributed to a higher incidence of broken homes than was true of their white counterparts. Ball emphasized that the completion of invalid profiles more often by Blacks than whites was associated with poor academic performance and lower I. Q. scores for Blacks.

Major criticisms were leveled at Ball's explanation for his findings. One such criticism was that the study employed too few subjects. Further criticism was directed toward the socio-economic status, academic achievement, and I. Q. variables, which Ball inadequately attempted to control through matching, thereby causing confounding effects on his findings. A concise summation of the major criticisms of Ball's study was advanced by Costello, Tiffany, and Gier who stated that

Ball (1960) compared MMPI performance of a small sample of Black and white ninth-grade students without controlling for the fact that whites had a higher mean I. Q., were achieving better grades in school, and were predominantly from a higher SES class than blacks. Also, a higher percentage of broken homes was associated with the group of black males. Ball was aware of these demographic differences, but accounted for their effect in a post hoc fashion rather than attempting to control them through experimental design (3, p. 161).

J. Butcher, B. Ball, and E. Ray (2) investigated the effect of socio-economic status on MMPI Profiles of Black and white college students. The variables controlled were geographical location, age, sex, and socio-economic level. The Warner Occupational Index was used for matching subjects
according to socio-economic status. Three major comparisons were made (1) to determine if there were differences between a matched sample of white males and females attending different colleges; (2) to investigate socio-cultural differences other than socio-economic status by matching samples from both racially segregated colleges according to the variables of age, sex, education, and geographical locale; (3) to probe for racial differences between subjects matched for age, education, and SES.

Findings indicated that subcultural differences operated independently of sex and socio-economic status and that interpretation of Black profiles without taking into consideration the SES of the subject was complicated, since lower-class Blacks feel less pressure to minimize their socio-cultural differences with their white counterpart than middle-class Blacks (10). No significant differences were found in sex-profile comparisons for the white sample, but differences were found between the combined (male-female) racial samples when subjects were matched according to socio-economic status. Butcher, Ball, and Ray's methodological approach, that is, investigating the effects of SES on racial differences on the MMPI, was reflected in the sensitivity of the MMPI to SES of subjects when variables such as age, sex, institutional differences, and occupational status were controlled. A possible source of variation, that is, socio-cultural rather than racial membership, or specific
SES was advanced as the source of significant racial variability.

Up until 1960, none of these studies had been devised with the intention of providing representative samples of Blacks and whites. The comparisons that have been reported in the literature have undoubtedly been influenced by many factors other than racial membership.

In 1960, an exploratory study by J. K. Hokanson and G. Calden (11), using Black and white samples matched on the variables of age and hospital admittance within a six-month period, revealed significant racial differences in scaled scores on the MMPI. "Records with validity scores above a critical score of \( T = 70 \) were rejected except on the F scale where records having scores above \( T = 80 \) were disqualified" (11, p. 32). A "T" value was computed for each of the MMPI scales. Blacks scored higher on scales 4, 5, 8, 9, L, and F; however, no mean scores were reported concerning how whites scored relative to Blacks. It was the opinion of the authors that Black males show less concern over conventional social mores, demonstrate greater emotional vigor, are more prone to act on their ideas, manifest more of what is considered unusual thought and behavior, and present a more feminine pattern of interest. Hokanson and Calden (11) suggested a methodological approach that subsequent research on racial differences on the MMPI followed in principle. They proposed that "a more careful consideration of an individual's
socio-cultural background may be necessary for an adequate evaluation of his MMPI record" (8, p. 33), a principal rigidly employed by R. M. Costello, D. W. Tiffany, and R. H. Gier (5) in controlling a study published in 1972.

Investigation of the theory that racial variation in MMPI profiles was possibly caused by factors other than membership in a specific racial group was done by C. Miller, C. Wertz, and S. Counts (18) in 1961. These authors collected MMPI profile records of one hundred Blacks and one hundred whites. The sample was composed of Blacks and whites who applied for treatment at a Veterans' Administration mental hygiene clinic. Subjects were matched for age, employment status, and education. Matching subjects on occupational level was not successful, since 39 per cent of the Blacks fell in the lowest category of unskilled labor as compared to only 8 per cent of the whites.

Using an analysis of variance between studies done by Fry (8) and Hokanson and Calden from other institutional settings, Miller, Wertz, and Counts pointed out that most racial variation was influenced by attendance at particular types of institutions and not with membership in a racial group. The idea was also advanced that one should not try to develop norms for Blacks, as advocated by Hokanson and Calden (11), McDonald and Gynther (15), and Butcher, Ball, and Ray (2). Instead, they held that socio-environmental factors, such as occupational level and education, rather
than race were responsible for much of the racial variability in test scores.

In a subsequent study, R. L. McDonald and M. D. Gynther (16) investigated the effect of socio-economic status on the MMPI. Subjects were matched for age, sex, and socio-economic status. The authors, using an admittedly crude procedure to match subjects on the class factor, advised that their results should be interpreted with this inadequacy in mind. No analysis of variance revealed that the significant differences found between races could not be attributed to socio-economic status or class alone.

These findings do not coincide with the hypothesis advanced by W. G. Dahlstrom and G. S. Welsh (6) that racial differences are a function of known socio-economic differences. In view of this fact, McDonald and Gynther advanced an hypothesis that has been proposed by other researchers (7, 9, 10)—namely, Flanagan and Lewis and Harrison and Kass—that racial differences on the MMPI are socio-culturally determined when an adequate matching procedure is used.

McDonald and Gynther (16) designed a study in 1962 with their objective being an advent of complementary and subsequent studies designed to generate normative data for Blacks on the MMPI. Their sample was composed of high school seniors from urban, segregated public schools. Socio-economic level was not controlled, even though it was significantly
skewed, with whites dominating the higher two of the quadruple categorization scheme. No mention was made of other variables which had demonstrated in previous research a confounding effect when not properly controlled. Nor was there any attempt to control social class within this Black sample. The authors assumed that social class for all Black subjects was identical. Using a configurational analysis, they found a very distinct racial difference in MMPI profiles. Racial membership was advanced as the chief source of variance. The establishment of appropriate norms for male and female Blacks was also recommended.

Large differences between Black and white pregnant women in response to items on the MMPI, but not the Clinical scales, were found in a study by H. H. Harrison and E. H. Kass (9). Ruling out biological differences as the source of variance in MMPI item response, the researchers pointed out that the observed differences were primarily socio-cultural in origin. The northern Black sample resembled the northern white sample more closely in the mode of responding to items on the inventory than did the southern Black sample. Since environmental factors that had previously been found to influence personality differences were controlled, e.g., age, sex, and socio-economic level, the authors advanced the idea that acculturation or the lack of acculturation to "white society" accounts for racial personality differences on the MMPI.
A subsequent study in 1968 by these same authors (10) advanced the theory that the pace of acculturation of Blacks to the northern white urban environment accounts for the basic differences observed in MMPI profiles. As assimilation and acculturation increase, racial differences on the MMPI should, according to the authors, decrease.

In 1968, C. Miller, S. C. Knapp and C. W. Daniels (17) studied the differential effects of specific institutional affiliation and racial variability as measured by the MMPI. The authors used a sample of one hundred Black and one hundred white male subjects in a Veterans' Administration Hospital matched for age, education, and occupational status. The MMPI profiles obtained were compared with samples used in previous research by others: the prison sample employed by Fry (8) in 1949; tubercular patients sampled by Hokanson and Calden (11) in 1960; and mental hygiene clinic patients used in a study by Miller, Wertz, and Counts (18) in 1961.

Racial variation in this study was attributed to institutional affiliation rather than to racial membership. An analysis of variance between the three racial-mean profiles from the three different institutions was utilized by the authors to show that specific institutional affiliation is a source of racial differences. Further emphasis was given to the theory that norms should be established according to environmental rather than racial factors; socio-cultural factors which are thought to influence MMPI profiles should be identified and studied.
J. Flanagan and G. Lewis (7), after referring to Pettigrew's (20) implications that little is known about the nature of racial differences in personality because of a failure of past researchers to control socio-economic status, regional differences and educational levels, studied prisoners and defended using such a sample on the premise that some of the environmental and motivational factors which are difficult to control could be more easily regulated by using confined or restricted populations. Subjects were not as closely matched on socio-economic status as in other studies (2, 5, 9, 10, 15). This could possibly account for their finding no significant racial differences on the MMPI. The authors imply that differences in experience associated with such factors as education or socio-economic status may be more important for aptitude variables than for racial personality variations.

R. M. Costello, D. W. Tiffany, and R. H. Gier (5) designed a study to focus upon the contrasts, similarities, and conflicts generated by previous research. Three broad areas of conflict were probed: (1) the source of racial variance, (2) the difficulty in rigorously controlling variables known to affect MMPI profiles, such as age, sex, geographical location, and socio-economic status, and (3) the type of validity criteria employed by previous researchers. The authors' primary concern was to focus upon the methodological issues and experimental designs which generated many of the
inconsistencies in the findings of past research. They concluded that apparent racial differences may have been caused by the data chosen by the experimenter for examination, the variations in the requirements for declaring an MMPI profile invalid, and the difficulty of matching subjects according to environmental, socio-cultural, and demographic variables.
CHAPTER BIBLIOGRAPHY


CHAPTER III

METHOD

Subjects

Subjects for this study consisted of 172 students enrolled at North Texas State University during the summer of 1972. Students were selected randomly from a University master roll. Every third undergraduate student listed was selected and asked to complete an MMPI. This selection procedure produced such a small number of Black subjects that an alternate selection process had to be utilized to increase the size of the Black sample.

The present study employed only valid profiles from students who were listed as Texas residents. Validity criteria employed in this study, which was similar to that employed by Costello, Tiffany, and Gier (2), required rejection of MMPI profiles which contained $L > T = 70$, $F > T = 80$, or $K > T = 70$. Twenty-three profiles met this rejection criterion. Thus, the sample in the present study was reduced to an $N$ of 149. Racial and sexual groupings were as follows: 58 Blacks—31 males and 27 females—and 91 whites—45 males and 46 females.
Description of Instruments

Form R of the Minnesota Multiphasic Personality Inventory was administered to each subject. Protocols were hand-scored first by the author and secondly by an independent psychometrist at another university in northern Texas.

The Syneider and Lysgaard classification scheme was employed to assign students a socio-economic status. This scale did not use income level of the subject's father or mother as a criterion for assigning a socio-economic level to subjects; only educational level and occupational titles were employed. The originators of this classification scheme explained that their inclusive occupational categories were not entirely homogeneous with respect to class income level, social prestige, or social equality because "it was intended that the classification be independent of such criteria, which at their face value might be contingent upon a certain way of life" (7, p. 144). Entertaining the idea that subjects are usually unaware of their father's income level and in concurrence with the rationale cited by Syneider and Lysgaard (9) for the structure of their scale, this method was employed to assign students a socio-economic status in the present study.

Procedure

Subjects in this study were volunteers. As an incentive for participation in the study, subjects were promised an interpretation of their MMPI profiles. Subjects were
administered the MMPI and upon its completion were given the Schneider and Lysgaard Classification Scheme (9). Verbal instructions consisted of the following:

Open your test booklets and read the directions carefully. If you have questions regarding how to answer the questions on the test after reading the directions, let me know. If there are no questions, then you may proceed. After you have finished, give your test booklet and answer sheet to me; then, fill out the information sheet (Schneider and Lysgaard Classification Scheme) that I will give you. Directions for completion are at the top of the page.

After subjects completed the socio-economic scale, they were thanked for their cooperation and told that they were free to leave.

The level of socio-economic status was determined by adding together two weighted scores in a manner similar to that reported by Costello, Tiffany, and Gier (3). Weights were assigned in this manner: for parental educational level a weight of 2 for nine to twelve years, 3 for thirteen to sixteen years, and 4 for sixteen plus years of education. For occupational classification a weight of 6 was assigned to Level I, 4 to Level II, 2 to Level III, and 1 to Level IV. The educational weight was added to the occupational weight; the combined score became the level of socio-economic status of the student. Socio-economic status had a possible range of one to ten.

The statistical technique employed to test the hypotheses in the present study consisted of a one-way analysis of covariance. One hundred forty-nine subjects were involved (N = 149). Racial membership (Black-white) was the
independent variable, while scores on the thirteen basic scales of the MMPI were dependent variables. The socio-economic status served as the co-variant.

An analysis of co-variance was applied to the non-K corrected MMPI "T" scores. Rationale for the non-correction was that the K correction tends to increase intercorrelations between scales, thus possibly making some subtle differences difficult to discern or reach significance (2, p. 17).

Statistically controlling socio-economic status was highly desirable since racial variability has previously been attributed to differences for this variable (1, p. 306). The level of confidence required for accepting all hypotheses in this study was < .05.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

RESULTS

Hypothesis I stated that Black males would have mean scores significantly higher than white males on scales F, 4, 5, 6, and 9 of the MMPI. Statistical treatment of this, as well as all other hypotheses, consisted of a one-way analysis of co-variance. Race was the independent variable, and the level of socio-economic status served as the co-variant. Results are presented in this order: Table I, scale F; Table II, scale 4; Table III, scale 5; Table IV, scale 6; Table V, scale 9.

TABLE I

ANALYSIS OF CO-VARIANCE OF T SCORES OF MALE RACIAL SAMPLES FOR SCALE F OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Difference</td>
<td>612.83</td>
<td>1</td>
<td>612.83</td>
<td>4.72</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>9477.61</td>
<td>73</td>
<td>129.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>612.83</td>
<td>74</td>
<td>51.67</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 51.67 White Adjusted Mean = 51.31

Statistical computations revealed that there was a significant racial difference (p < .05) between Black and
white males on the F scale of the MMPI. Thus, hypothesis I is accepted for scale F.

Results of statistical treatment for scale 4 may be seen in Table II. Statistical treatment revealed no significant racial differences on this scale \(p > .05\). Results tend in the opposite direction than was hypothesized. Therefore, hypothesis I is not supported for scale 4.

**TABLE II**

**ANALYSIS OF CO-VARIANCE OF T SCORES OF MALE RACIAL SAMPLES FOR SCALE 4 OF THE MMPI**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Difference</td>
<td>2.15</td>
<td>1</td>
<td>2.15</td>
<td>0.02</td>
<td>N/S*</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>10020.02</td>
<td>73</td>
<td>137.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10022.17</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant

Black Adjusted Mean = 54.79  White Adjusted Mean = 54.40

Statistical treatment also revealed no significant racial differences on scales 5, 6, and 9. Results are presented in Tables III, IV, and V, respectively.

Hypothesis II proposed that female racial samples would differ significantly from each other on scales F, 8, and 0, with Black females having higher mean scores on these respective scales than their white counterparts. As may be seen in Tables VI and VII, no significant differences were
TABLE III

ANALYSIS OF CO-VARIANCE OF T SCORES OF MALE RACIAL SAMPLES FOR SCALE 5 OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Difference</td>
<td>18.99</td>
<td>1</td>
<td>18.99</td>
<td>0.23</td>
<td>N/S</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>6135.09</td>
<td>73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6154.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 57.77  White Adjusted Mean = 58.93

TABLE IV

ANALYSIS OF CO-VARIANCE OF T SCORES OF MALE RACIAL SAMPLES FOR SCALE 6 OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Difference</td>
<td>1.17</td>
<td>1</td>
<td>1.17</td>
<td>0.0085</td>
<td>N/S</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>10052.63</td>
<td>73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10053.79</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 57106  White Adjusted Mean = 57.35

found for scales 8 and 0. The hypotheses regarding these scales were, therefore, rejected.

Significant differences were found for scale 0, and the hypothesis regarding this scale was accepted. (See Table VIII.)

Hypothesis III stated that white females would score significantly higher on scales K and 1 than their Black
### TABLE V

**ANALYSIS OF CO-VARIANCE OF T SCAres OF MALE RACIAL SAMPLES FOR SCALE 9 OF THE MMPI**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Difference</td>
<td>8.56</td>
<td>1</td>
<td>8.56</td>
<td>0.10</td>
<td>N/S</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>6169.19</td>
<td>73</td>
<td>84.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6177.75</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 6158  White Adjusted Mean = 60.81

### TABLE VI

**ANALYSIS OF CO-VARIANCE OF T SCAres OF FEMALE RACIAL SAMPLES FOR SCALE F OF THE MMPI**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Difference</td>
<td>399.42</td>
<td>1</td>
<td>399.42</td>
<td>3.26</td>
<td>N/S</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>8577.45</td>
<td>70</td>
<td>122.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8976.87</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 65.74  White Adjusted Mean = 60.82

### TABLE VII

**ANALYSIS OF CO-VARIANCE OF T SCAres OF FEMALE RACIAL SAMPLES FOR SCALE 8 OF THE MMPI**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Difference</td>
<td>25.76</td>
<td>1</td>
<td>25.76</td>
<td>0.28</td>
<td>N/S</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>6530.11</td>
<td>70</td>
<td>93.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6555.86</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 51.29  White Adjusted Mean = 52.54
TABLE VIII
ANALYSIS OF CO-VARIANCE OF T SCORES OF FEMALE RACIAL SAMPLES FOR SCALE 0 OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Difference</td>
<td>2951.03</td>
<td>1</td>
<td>254.00</td>
<td>6.59</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>2697.04</td>
<td>70</td>
<td>38.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2951.03</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 49.11  White Adjusted Mean = 45.19

counterparts. Statistical results required rejection of hypothesis III, as may be seen in Tables IX and X.

Statistical computations revealed non-hypothesized significant findings for scales 3, 4, and 9. Mean scores were higher for Blacks on each of these scales. Results are presented in Tables XI, XII, and XIII, respectively.

TABLE IX
ANALYSIS OF CO-VARIANCE OF T SCORES OF FEMALE RACIAL SAMPLES FOR SCALE K OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>Difference</td>
<td>547.25</td>
<td>1</td>
<td>547.25</td>
<td>1.89</td>
<td>N/S</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>20261.42</td>
<td>70</td>
<td>289.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20808.67</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 49.83  White Adjusted Mean = 44.07
### TABLE X

**ANALYSIS OF CO-VARIANCE OF T SCORES OF FEMALE RACIAL SAMPLES FOR SCALE 1 OF THE MMPI**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Difference</td>
<td>44.64</td>
<td>1</td>
<td>44.64</td>
<td>0.22</td>
<td>N/S</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>14348.82</td>
<td>70</td>
<td>294.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14393.47</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 42.09  White Adjusted Mean = 40.44

### TABLE XI

**ANALYSIS OF CO-VARIANCE OF T SCORES OF FEMALE RACIAL SAMPLES FOR SCALE 3 OF THE MMPI**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Difference</td>
<td>462.61</td>
<td>1</td>
<td>462.61</td>
<td>3.88</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>8345.23</td>
<td>70</td>
<td>119.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8807.84</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 52.25  White Adjusted Mean = 46.95

### TABLE XII

**ANALYSIS OF CO-VARIANCE OF T SCORES OF FEMALE RACIAL SAMPLES FOR SCALE 4 OF THE MMPI**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Difference</td>
<td>810.88</td>
<td>1</td>
<td>810.00</td>
<td>6.18</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>9180.90</td>
<td>70</td>
<td>131.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9990.97</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 57.80  White Adjusted Mean = 50.78
TABLE XIII
ANALYSIS OF CO-VARIANCE OF T SCORES OF FEMALE RACIAL SAMPLES FOR SCALE 9 OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Difference</td>
<td>501.73</td>
<td>1</td>
<td>501.73</td>
<td>5.81</td>
<td>&lt; .05</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>6044.98</td>
<td>70</td>
<td>86.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6546.72</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 63.26
White Adjusted Mean = 57.73

For hypothesis IV, Black males and females were combined and compared with the combined white sample. Statistics for the thirteen basic scales revealed significant racial differences only for scales F and 4. Significant results are shown in Tables XIV and XV.

Means and standard deviations for both racial samples may be seen in Table XVI.

TABLE XIV
ANALYSIS OF CO-VARIANCE OF T SCORES FOR RACIAL SAMPLES FOR SCALE F OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Difference</td>
<td>976.15</td>
<td>1</td>
<td>976.15</td>
<td>7.83</td>
<td>&lt; .05</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>18095.88</td>
<td>146</td>
<td>123.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1902.03</td>
<td>147</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 65.92
White Adjusted Mean = 60.37
TABLE XV

ANALYSIS OF CO-VARIANCE OF T SCORES FOR RACIAL SAMPLES FOR SCALE 4 OF THE MMPI

<table>
<thead>
<tr>
<th>Scale</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Difference</td>
<td>513.34</td>
<td>1</td>
<td>513.34</td>
<td>3.83</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>19565.81</td>
<td>146</td>
<td>134.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20079.15</td>
<td>147</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black Adjusted Mean = 56.44 White Adjusted Mean = 52.41

TABLE XVI

RACIAL MEANS AND STANDARD DEVIATION FOR THE THIRTEEN BASIC SCALES OF THE MMPI

<table>
<thead>
<tr>
<th>Scales</th>
<th>Blacks</th>
<th></th>
<th></th>
<th>Whites</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Means</td>
<td>SD</td>
<td>Means</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>50.40</td>
<td>7.38</td>
<td>52.00</td>
<td>10.66</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>65.53</td>
<td>11.57</td>
<td>60.63</td>
<td>10.85</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>47.28</td>
<td>17.45</td>
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Discussion

Significant racial differences have been discovered for all thirteen basic scales of the MMPI; however, no individual research has reported significant differences on all thirteen of these scales simultaneously. Racial variability has been observed more often on some scales than on others. Consequently, the frequency of differences noted previously on specific scales was the rationale for combining specific scales within each major hypothesis.

The authenticity of a distinct pattern of racial variability of the MMPI is no longer speculative, but widely accepted. Little research using the MMPI has been undertaken to determine the primary source of this variability. Instead, most research has been directed toward empirically substantiating the current axiomatic status of racial variability on the MMPI. Investigations intentionally focused upon the cultural environment as a possible cause for racial differences and upon the ramification of these differences on personality development could be beneficial to psychology's understanding of the marked tendency toward higher profiles for Blacks on the MMPI.

Harrison and Kass (6) felt that a lack of acculturation of Blacks to white cultural patterns accounts for racial differences on the MMPI. However, acculturation was defined by J. Chaplin (4) as a process by which a child learns the behavioral patterns characteristic of his group or learns
social patterns of an alien group. This view implies that acculturation has already occurred. Social learning and social institutions are similar for both groups, often identical, where common social facilities exist for both races. Harrison and Kass (6) were referring here, however, to the construct of cultural assimilation rather than acculturation.

Past research has proceeded with experimental designs that attributed racial variability to membership in a specific racial group. Often such constructs as acculturation, cultural abclusion, and cultural assimilation were ignored or considered to have negligible effects upon the outcome of research. Hence, most researchers have often discovered that their findings were in conflict with other investigations. It is advisable that this research take into consideration the diverse populations sampled, the assorted environmental settings, as well as other variables such as SES, age, and geographical locality when assessing the validity of findings. Heuristic implications within this study will possibly encourage additional research directed toward identifying the causes of racial variability rather than attributing this variance solely to racial membership—a biological variable.

Hypothesis IV stated that significant racial differences between Blacks and whites would be found for scales L, F, K, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. Hypothesis IV
was rejected, since significant differences were found only for scales F and 4.

Findings on the F scale indicated that Black students did not possess as much impulse control as did white students. Blacks reflected more apathy and were likely to be more opinionated toward religion and laws than white students. Aggression and sadism in interpersonal relations was also indicated. Blacks, as a group, tended to show less concern for accepted norms and mores.

It was expected that there would be more significant differences than were discovered in this study. Black and white students, while differing on several scales, proved to be more similar than different. Since there were several significant differences between samples, it is felt that heuristic research should be directed toward identifying the cultural influences that are suspect as causative factors producing these variances.

This study used subjects enrolled in a summer session as opposed to Butcher, Ball, and Ray's study (2) which employed regular-term students. Traditionally, summer students are considered to be more motivated toward educational goals than those who only attend during a regular session. Perhaps this phenomenon may explain the apparent homogeneity of the subjects tested for this study.

If these historical, clear-cut racial differences could be attributed solely to a biological factor such as race,
then there should be a consensus of findings for all re-
search directed at the source of this variability. The
meaning of any empirical investigation in this case is con-
tingent upon the mode of investigation and assessment.

McDonald and Gynther's (8) heuristic implication in
their research was supported by the trends in the present
study. These authors predicted that the greater the physical
integration between Blacks and whites, the fewer significant
differences there would be on the MMPI. The present study,
having been conducted in an integrated university, was
unique. No other study has been reported which utilized
college populations in such a setting. Since findings of
the present study were in the direction predicted by McDonald
and Gynther in 1963, it is tempting to conclude that they
were correct in their predictions. Poverty of research con-
ducted in a racially integrated non-custodial setting tempers
such a temptation.

Butcher, Ball, and Ray (2) published the only previous
research which utilized college subjects. They conducted
their research in a racially segregated setting. More racial
differences were found by these authors than were empirically
supported in the present research. In this study, support
was indicated for the prediction that physical proximity
decreases racial variability.

Ball (1) focused his research upon an evaluation of the
effects on SES on the MMPI profiles, a factor statistically
controlled in the present study. Past studies have controlled
poorly for SES, and according to Costello, Tiffany, and Gier (5), this failure has often contaminated the findings. Several past researchers (1, 5, 10) advocated the development of separate norms for Blacks on the MMPI, an idea denounced in subsequent research. One study (10) reiterated the prediction of McDonald and Gynther (7) by suggesting that, instead of racial normatization of the MMPI, interpretation of MMPI protocols should be done for particular socio-cultural settings as opposed to racial categories. These authors also suggested that most past racial differences on the MMPI resulted from the subjects' affiliation with a particular type of institution. Very little racial variability was associated with the subjects' racial membership.

Also opposed to racial normatization, Miller, Daniels, and Knapp (9) emphasized, as did others (6, 8), that the importance of the setting should be evaluated when investigating causative factors for racial variability on the MMPI. Socio-cultural factors which possibly influence scores should be identified and concisely labeled.

Findings in the present study enabled a statement of several generalities common to each racial sample. Even though the majority of the findings were in the hypothesized direction, only scales F and 3 revealed differences significant at the .05 level of confidence. Black males scored significantly higher than white males on scale F, leading to these inferences: Black males could be described as being
more often preoccupied with peculiar thoughts, more apathetic in attitude, more likely to deny social and familial ties, and less impulse controlled than their white counterparts.

A significant difference between samples was discovered for scale 3. However, the mean score for the white males was significantly higher than the mean score for Black males. Indications were that white males were more likely than Black males to resort to physical complaints as a means of solving stressful situations, to make special efforts to appear well adjusted socially, to be lacking in self confidence, often over-reacting in response to a situation, and verbally to sound off readily. Other adjectives used in The Counselor's Handbook (3) to describe profiles obtained from white males were the following: above average in intelligence, clever, enthusiastic, imaginative, impatient, independent, infantile, inhibited, spunky, and thankless.

Hypothesis II, which stated that female racial samples would differ significantly from each other on scales F, G, and O, was rejected. Non-significant findings for scales F and G were in the hypothesized direction. Black females were found to differ significantly from white females on scale O. Speculations possible from this finding were that Black females were more likely than white females to be modest, self-effacing, possibly more socially submissive, high-strung, and sentimental.
Non-hypothesized significant differences were discovered for scales 3, 4, and 9. Black females had significantly higher mean scores on these respective scales. Indications from scale 3 findings were that Black females were more prone to worry, were enthusiastic, responsible, and more soft-hearted than white females.

Findings on scale 4 suggested less concern on the part of Blacks toward more conventional mores. Other inferences drawn were that Black females were more aggressive, self-confident, and enthusiastic than white female students.

Inferences drawn from findings on scale 9 were that Black females would demonstrate greater tendencies toward action, vigor, and buoyancy than their white counterparts. The significantly higher mean score for Black females on scale 9 has been consistently observed in past research (6, 10).

It should be kept in mind that this study, along with similar research, encompasses an inherent weakness. There are few, if any, behavioral references which have been positively correlated with behavioral implications in this and past research.

Rarity of research, especially with samples who reside in racially integrated environments, deemed it important to collect data from such settings. Such a bank of psychological literature would better enable researchers to substantiate or refute claims that there are causative factors
for racial differences on the MMPI. It was this study's intent to increase this meager bank of psychological literature.


CHAPTER V

SUMMARY AND CONCLUSIONS

The present study was undertaken, first, to investigate racial differences on the MMPI, utilizing samples from the same non-custodial institution, and, secondly, to increase the investigative literature dealing with racial variability on the MMPI. Valid MMPI protocols were completed by 149 Black and white students who were attending North Texas State University during the summer of 1972. Form R of the MMPI was administered. The Schneider and Lysgaard classification scheme was used to determine the social and economic status of each student. Statistical treatment which was performed by North Texas State University Computer Center, consisted of an analysis of co-variance with race being the independent variable and social and economic status serving as the co-variants. Comparisons were made between group means on each of the thirteen basic scales of the MMPI.

These racial comparisons were made: Black males versus white males, Black females versus white females, and Blacks (males and females) versus whites (males and females).

The following hypotheses were tested in this study.

Hypothesis I. Black males will score significantly higher than white males on scales P, 4, 5, 6, and 9 of the MMPI.
Hypothesis II. Black females will score significantly higher than white females on scales F, 3, and 0.

Hypothesis III. White females will score significantly higher than Black females on scales K and 1 of the MMPI.

Hypothesis IV. Racial samples will differ significantly on scales L, F, K, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0 of the MMPI.

The sample consisted of fifty-eight Black students, 31 males and 27 females; ninety-one white students, 45 males and 46 females. Imposition of validity criteria required rejection of twenty-three protocols, nine from whites and fourteen from Black students.

Hypothesis I was supported for scale F. Black males scored significantly higher on scale F than white males. White males were significantly higher on scale 3. The latter finding was not an hypothesized finding. Therefore, hypothesis I was supported for scale F but not for scales 4, 5, 6, and 9.

Black females scored significantly higher than white females on scale 0; thus, hypothesis II was supported for scale 0. Hypothesis II was rejected for scales F and 3 owing to non-significant racial variability on these scales. Unexpected significant differences were discovered for scales 3, 4, and 9 for the female sample, with Black females scoring higher on each of those scales.
Hypothesis III, which focused upon female differences on scales K and J, was rejected.

Racial samples (white males and females versus Black males and females) were found to differ significantly only for scales F and 4. Therefore, hypothesis IV is supported only for scales F and 4.

It may be concluded that the differences found in this study were the result of different socio-cultural patterns operating within each group. The combined racial groups were significantly different only on scales F and 4 of the MMPI. While differences of great magnitude have been observed in the past, they were for different scales. Those significant differences which were unexpectedly found, indicated a socio-cultural origin.

Findings in this study were similar to those of previous experimenters but the differences found were of such a magnitude that they must be considered important. There were more discrepancies between the scores of Black and white females than between Black and white males. This leads to the speculation that each racial group has its own intact value system for both sexes.

A major realization reached in this study was that the sample was apparently composed of middle-class Blacks and whites. As Blacks and whites become less segregated, differences on the MMPI can be expected to diminish. It is known that, as integration increases, the middle-class Black
tends to minimize differences between himself and his white counterpart. It was felt that this tendency contributed toward the homogeneity of the resulting test scores and fewer significant racial differences than had been hypothesized.

It was recommended that future investigations be directed toward identifying the socio-cultural dictates which cause racial variability on the Minnesota Multiphasic Personality Inventory.
APPENDIX

S E S
(FOR PSYCHOLOGIST USE ONLY)

NAME: ____________________________

AGE: ____________________________

SEX: Male  Female  (Circle One)

CLASSIFICATION: Fr.  Soph.  Jr.  Sr.  (Circle One)

RACE: White  Black  (Circle One)

F I R S T After filling in the above information, circle the occupation that your father is employed in from the listings below. If his specific occupational title is not listed, circle the occupational title closest to the occupation of your father.

Doctor  Assembly-line Supervisor
Banker  Foreman
Lawyer  Electronic Engineer
Minister  Insurance Agent
Professor  Clerk
Consulting Engineer  Teacher
Company Executive  Preacher
Owner of a Large Business  Reporter
Owner of a Farm  Public Official
Ranch Owner  Entertainer
Psychologist  Accountant
Sociologist  Store Manager
Social Worker  Pharmacist
Company President  Fireman
Dentist  Policeman
Plumber  Teller in a Bank
Carpenter  Assembly-line Worker
Draftsman  Laborer
Chef  Janitor
Construction Worker  Farm Worker
Machinist  Road Worker
Upholsterer  Miner
Welder  Cab Driver
Surveyor  Waiter
Barber  Foundry Worker
Painter  Railroad Worker
Printer  Plumber's Helper
Electrician  Gas Station Attendant
Waiter    Sanitation Worker
Truck Driver  Brick Layer
Butcher    T. V. Repairman

NEXT  Place an "X" in the appropriate blank below which gives the number of years of education your father has.

_____ I. 0 - 8 years  _____ III. 13 - 16 years
_____ II. 9 - 12 years  _____ IV. 16+ years
BIBLIOGRAPHY

Books


Lanyon, Richard I., A Handbook of MMPI Profiles, Minneapolis, University of Minnesota Press.


Articles


Fry, F. D., "A Study of the Personality Traits of College Students and State Prison Inmates as Measured by the Minnesota Multiphasic Personality Inventory," Journal of Psychology, XXVII (1949), 439-449.


