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A TEST OF HOLLAND'S THEORY: A COMPARATIVE STUDY OF THE EXPRESSED
VOCATIONAL CHOICE OF BLACK AND WHITE STUDENTS AS RELATED TO
RACE AND SOCIOECONOMIC FACTORS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

by

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The Ohio State University

1976

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ACKNOWLEDGEMENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>VITA</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>viii</td>
</tr>
</tbody>
</table>

## Chapter

I. INTRODUCTION .............................................. 1

II. REVIEW OF THE LITERATURE ........................... 10

   Introduction ........................................ 10
   Research on Holland's Theory of Vocational Choice ... 10
   Black and White Vocational Interests and Aspirations.. 17
   Socioeconomic Status as a Factor Which Influences Vocational Choice ... 20
   Summary ............................................. 23

III. METHODOLOGY .......................................... 25

   Sample .............................................. 25
   Instruments ........................................ 27
   Procedure .......................................... 28
   Hypotheses ......................................... 30

IV. RESULTS .............................................. 33

   Summary ............................................. 41

V. DISCUSSION .......................................... 43
### TABLE OF CONTENTS — Continued

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI. SUMMARY, CONCLUSIONS AND IMPLICATIONS</td>
<td>48</td>
</tr>
<tr>
<td>Summary</td>
<td>48</td>
</tr>
<tr>
<td>Major Findings and Conclusions</td>
<td>48</td>
</tr>
<tr>
<td>Limitations</td>
<td>49</td>
</tr>
<tr>
<td>Implications</td>
<td>51</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>53</td>
</tr>
<tr>
<td>A</td>
<td>54</td>
</tr>
<tr>
<td>B</td>
<td>55</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>56</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Summary of Sample</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Summary of the Analysis of Variance of Level Scores According to Race and Socioeconomic Status (SES)</td>
<td>34</td>
</tr>
<tr>
<td>3</td>
<td>Summary of the Scheffe' Analysis of All Possible Combinations of Level Scores According to Race and Socioeconomic Status (SES)</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>Summary of the Analysis of Variance Scores on the Vocational Preference Inventory According to Socioeconomic Status (SES) and Field</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>Summary of the Frequency Distribution and Chi Square Analysis of High Point Codes on the Vocational Preference Inventory and the Vocational Choice Questionnaire According to Socioeconomic Status (SES) and Field</td>
<td>36</td>
</tr>
<tr>
<td>6</td>
<td>Mean Scores and Standard Deviations for the Black and White Groups on the Realistic, Social, and Artistic Scales of the Vocational Preference Inventory</td>
<td>37</td>
</tr>
<tr>
<td>7</td>
<td>Analysis of Variance F Tests of the Scores for Black and White Groups on the Realistic, Social, and Artistic Scales of the Vocational Preference Inventory</td>
<td>37</td>
</tr>
<tr>
<td>8</td>
<td>Summary of the Frequency Distribution and Chi Square Analysis of High Point Codes for the Black and White Groups on the Realistic, Investigative, Social, Conventional, Enterprising, and Artistic Scales of the Vocational Preference Inventory</td>
<td>38</td>
</tr>
<tr>
<td>9</td>
<td>Summary of the Frequency Distribution and Chi Square Analysis of High Point Codes for the Black and White Groups on the Vocational Choice Questionnaire</td>
<td>39</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Summary of the Analysis of Variance of Yes Scores on the Vocational Preference Inventory According to Race and Socioeconomic Status (SES).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Page 40</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Summary of the Chi Square Analysis of Scores on Congruence According to Socioeconomic Status (SES) and Race.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Page 41</td>
<td></td>
</tr>
</tbody>
</table>
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A Hexagonal Model for Interpreting Inter- and Intra-Environmental and Personality Type Class Relationships.</td>
<td>6</td>
</tr>
</tbody>
</table>

viii
CHAPTER I

INTRODUCTION

In our changing technological society, career development must be viewed as a lifetime process. Occupations that students are now preparing for may be obsolete or nonexistent in the next ten years. When students are introduced to the world of work they must be counseled and guided so that they can make wise and realistic career choices. Students who come from the lower socioeconomic groups are not generally exposed to the many hundreds of different occupations in our economy (Sewell and Orienstein, 1965). It therefore follows that such students' vocational choices are far more limited than those of students from the higher socioeconomic groups.

The number of young men and women who have been able to rise above impoverished environments has been relatively small. For this particular group the opportunity for meaningful employment is either nonexistent or at best, at "the last to be hired and the first to be fired" expectation level. For these individuals the vocational choice process must become an immediate matter of great decision and importance.

A lack of appropriate education, training, occupational information, coupled with inadequate vocational counseling, are critical
factors that contribute to individuals, especially blacks, making poor or unrealistic vocational choices.

In order to counsel blacks, one must take into account the total black experience. Socioeconomic and racial variables are important to the counseling process. In their present form most of the current existing theories of vocational choice (Ginzberg, Ginsburg, Axelrad and Herma, 1951; Super, 1953; and Roe, 1957; Bordin, Nachmann and Segal, 1963) have little applicability to blacks. Ginzberg, Ginsburg, Axelrad and Herma (1951) and Super (1957) espouse the developmental approach; Roe (1957) attempts to explain the process in terms of satisfaction of individual needs; while Bordin, Nachmann and Segal (1963) derived their approach from psychoanalytic theory.

After a review of these existing theories, Osipow (1973) states: "It becomes clear as the assessment of career development theory is concluded, that several shortcomings exist. The theories appear to be much too broad in scope and generally too skimpy in detail" (p. 247). In addition, the theoretical formulation of the theories were generally tested using a population consisting of talented or atypical individuals. Osipow (1975) also points out, that if we are to understand the career development of minorities, then we must first analyze the causal factors associated with this process.

More importantly, if we are to have minority group participation in the American economic mainstream, we must either invent new systems to counsel with blacks, or revise the current systems and theories, thus implementing new innovations and ideas.
Of the current existing vocational choice theories that have been reviewed, Holland's (1966a) theory, with some revision, seems to offer the most viable base to start this process.

Holland's theory of vocational choice consist of the following basic assumptions (Holland, 1973, pp. 2-4) quoted here:

1. In our culture, most persons can be categorized as one of six types: realistic, investigative, artistic, social, enterprising, or conventional.

2. There are six kinds of environments: Realistic, investigative, artistic, social, enterprising, and conventional.

3. People search for environments that will let them exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles.

4. A person's behavior is determined by an interaction between his personality and the characteristics of his environment.

Holland came to see the choice of a vocation as an expression of personality and vocational interests as the expression of personality in work, hobbies, recreation, and preferences. He assumed that people who are asked their occupational preferences will project their personalities and their views of the world of work onto the titles. Holland observed that people view the world of work in terms of occupational stereotypes based upon their experiences with work and that these stereotypes have reliable psychological and sociological meaning. Holland began to construct a list of occupational titles onto which a person could project his personality, which would reflect his preferred life style. He assumed that members of a vocation have similar personalities and life histories, for, if a person enters a vocation because of his particular personality and history, it follows that each
vocation attracts and retains people with similar personalities and backgrounds. Because people in a vocational group have similar personalities, they respond to many situations and problems in similar ways, and they will create characteristic interpersonal environments. A person's vocational choice is thus the outcome of his life history.

The present study can be conceptualized as an empirical investigation of the utility of Holland's assumption when counseling with black students.

The Personality Types

Through the construction of his personality inventory, Holland (1966a) formulated the six personality types based on modes of adjustment, styles of interpersonal relationships, and reactions to environments. These represent a characteristic cluster of personal attributes quoted from Osipow (1973):

The Realistic orientation is characterized by aggressive behavior, interest in activities requiring motor coordination, skill and physical strength, and masculinity. People oriented toward this role prefer "acting out" problems; they avoid tasks involving interpersonal and verbal skills and seek concrete rather than abstract problem situations. They score high on traits such as concreteness, physical strength, and masculinity, and low on social skill and sensitivity.

The Investigative persons' main characteristics are thinking rather than acting, organizing and understanding rather than dominating or persuading, and associability rather than sociability. These people prefer to avoid close interpersonal contact, though the quality of their avoidance seems different from their Realistic colleagues.

The Social people seem to satisfy their needs for attention in a teaching or therapeutic situation. In sharp contrast to the Investigative and Realistic people, Social people seek close interpersonal situations and are skilled in their interpersonal relations, while they avoid situations where they might be required to engage in intellectual problem solving or use extensive physical skills.
The Conventional style is typified by a great concern for rules and regulations, great self control, subordination of personal needs, and strong identification with power and status. This kind of person prefers structure and order and thus seeks interpersonal and work situations where structure is readily available.

The Enterprising people are verbally skilled, but rather than use their verbal skills to support others as the Social types do, they use them for manipulation and dominating people. They are concerned about power and status as are the Conventional people, but differ in that they aspire to the power and status while the Conventionals honor others for it.

The Artistic orientation manifests strong self-expression and relations with other people indirectly through their artistic expression. Such people dislike structure, rather prefer tasks emphasizing physical skills or interpersonal interactions. They are intraceptive and asocial more feminine than masculine, show relatively little self-control and express emotion more readily than most people. (Osipow, 1973)

Holland has operationalized the six personality types by using the Vocational Preference Inventory (VPI) (1965), and the Self-Directed Search (SDS) (1971). The six types are further described by Holland in terms of goals and values, preferred roles, preferred activities, aversions, self-concept, achievement and originality, outlook and perception, and background and personal development. These types are models which are products of characteristic interactions between heredity, cultural and personal forces, such as peers, parents, social class, and physical environment. A person's biological, social and personal history create a set of abilities, skills, goals, values, self-concept and coping behavior. A major weakness in Holland's theory is his failure to expand upon how a person becomes a particular type. He mentions that childhood experiences with parents and social pressures in adolescence influence the shape of the personal orientation, but does not elaborate upon it further.
Research by Holland, Whitney, Cole, and Richards (1969) discovered that the VPI scales' intercorrelation matrix could be estimated by the distances within a hexagon. Thus, Holland (1973) states that the six personality types are psychologically related and describes the model as hexagonal in shape in which adjacent fields represent similar psychological personalities. Figure 1 shows the model Holland uses to classify his system.

![Hexagonal Model](image)

**Figure 1. A Hexagonal Model for Interpreting Inter- and Intra Environmental and Personality Type Class Relationships**

This model has several implications. In terms of alternatives or career progression, adjacent categories are most likely chosen. If it is easier to relate to people in adjacent areas, then the worker may be more effective if he works with similar types. The model also shows probability of movement among personality types. For example, using the hexagonal model proposed by Holland, one can conclude that initial Realistic individuals are more likely to move into the Conventional and
Investigative personality types than into the other three personality types. Relations with people in adjacent categories would be more frequent than with people in distant categories. And while a personal orientation of RIC would be typical, RSE would be unusual and psychologically not well integrated. The hexagon appears to be statistically supported and fairly stable (Holland, Whitney, Cole and Richards, 1969; Cole, Whitney and Holland, 1971; Cole and Hanson, 1971).

Originally, Holland formulated a level hierarchy within the six types defined by an individual's intelligence and his self-evaluation, or the worth which the individual attributes to himself. Subsequently, this over-simplified concept has been dropped. It is assumed that level of career aspiration is influenced by the pattern of orientations within the individual's hierarchy. Adequacy of career choice is dependent upon adequacy of information the individual possesses about himself. An individual with a well-structured, clearly defined personality pattern will be less affected by outside influences such as social pressure than people with ambiguous personality types.

An analysis of personality types can be done by comparing vocational interests with vocations typical of each personality type utilizing Holland's Vocational Preference Inventory (1965) or The Self-Directed Search (1972).

There are six kinds of environments: The Realistic environment is characterized by tasks that require much physical activity that tends to foster stereotyped masculine roles. The Investigative environment is characterized by tasks that stimulate and encourage ideation and cold impersonal relationships. The Social environment is characterized by
situations that foster skills in providing support for other people and encourages close interpersonal contacts. The Conventional environment is characterized by activities that require people to seek power and status. Generally this environment is oriented toward structure and organization. The Enterprising environment is characterized by tasks that are oriented toward exploiting and manipulating people. The Artistic environment is characterized by tasks that allow for considerable self-expression and esthetic experiences.

Each environment is dominated by people whose personality is typified by association with that environment. The Environmental Assessment Technique (EAT) was developed by Astin and Holland (1961) to classify and assess each model environment proposed in Holland's theory. Compatibility between the person-environment interaction is referred to as congruency. This congruency tends to foster career stability, personal satisfaction, as well as achievement. The process of finding a compatible vocation is complicated and can be confounded by many variables.

Recent research in the area dealing with blacks and vocational choice (Hager and Elton, 1971; Borgen and Harper, 1973; Kimball, Sedlacek, and Brooks, 1973; Smith, 1975) is encouraging because attention is now being focused on the career development of blacks, however there is still no research published that permits generalizations about Holland's theory to blacks from the lower socioeconomic groups to be made. Furthermore, in most studies race and social class have been confounded so that when differences are found it isn't clear whether the class variable or the race variable is more important, and how the two interact.
The purpose of the present study is to ascertain if black and white students fall proportionally into the six personality types as described by Holland and to determine if there are any significant differences in the level of vocational choice made by black and white students who come from different cultural and socioeconomic backgrounds. In essence, this study hopes to determine if Holland's theory of vocational choice has utility when counseling with black students about the vocational decision-making process.
CHAPTER II

REVIEW OF THE LITERATURE

This chapter presents a review of the literature relating to the present study. The review is divided into four sections: (1) critical studies conducted by Holland and others which lend support to the validity of the theory, (2) Black and white vocational interests and aspirations, (3) socioeconomic status as a factor which influences vocational choice, (4) a summary of the chapter.

Research on Holland's Theory of Vocational Choice

Holland began to substantiate the validity of his theory by using a population consisting primarily of National Merit Scholarship finalists. Although a number of the empirical studies that have been performed were cross-sectional and longitudinal, they were originally limited to atypical samples. However, more recent studies have included a wider range of subjects (Werner, 1969; Elton and Rose, 1970; Andrews, 1971; Privateer, 1971; Parsons, 1971; Nafziger, Holland, Helms, and McPartland, 1972).

In 1960 Holland intercorrelated the personal orientation scales of the Vocational Preference Inventory (VPI) with the Cattell Sixteen Personality Factor questionnaire (16 PF). The correlational results reported in this study seem to support the construct validity of the
scales. Forty-seven percent of the correlations between these instru-
ments were significant for large samples of high school males, and
twenty-eight percent of the correlations were significant for large
samples of high school females. Nearly all of the correlates are con-
sistent with the characteristics ascribed to each of the types.

Holland undertook to explore his theory of vocational choice by
conducting a series of longitudinal studies using large samples of
National Merit finalists. The first and second monographs (Holland,
1962; 1963a) were studies conducted over one to four year periods to
determine whether the six personal orientations were significantly dif-
f erent and whether or not the characteristics of each type confirmed its
model orientation. The significant differences in attributes were
generally consistent with the characteristics Holland gives to each per-
sonal orientation associated with vocational choices and preferences.

The longitudinal studies conducted by Holland (1963c; 1963b;
1963d; 1963e) were investigating how student perceptions (vocational
images, self descriptions, coping behaviors and competencies, vocational
daydreams) influence vocational choice.

In general the results of these studies support Holland's theory.
Holland (1963c) explored the relationship between vocational choices and
vocational images. His findings indicate that students will generally
make vocational choices and even describe themselves in ways which tend
to be consistent with the personality type they consider themselves to
resemble. Holland (1963b), investigating the relationship between voca-
tional choice and self-descriptions, found that people tend to view
occupations in stereotyped ways consistent with their own self-descrip-
tions and the main theoretical model for each type. In the same series.
of studies Holland (1963d) conducted a study to explore vocational preferences. The results are generally consistent with the models, they imply that vocational preferences are associated with self-conceptions, and personality as expressed in coping behavior. Holland also related his personality orientations to vocational daydreams (Holland, 1963e).

Holland and Nichols (1964) performed a study of changes in major field plans for a one year period. The results of this study indicate that staying in a field is associated with possessing personal attributes commonly associated with the typical student in that field, while leaving a field is related to differences from those of the typical student in that field. In another one year prediction study Holland (1964) tested his theory of vocational choice. The results indicate that large proportions of students make their choices in a manner consistent with the theory.

In a later study, Holland (1966), in order to try to obtain a more representative population, tested his theory by using a large diverse sample of typical college students. The purpose of this study was to determine how student characteristics could be predicted by using the theory to interpret the meaning of students' VPI scale scores. In general, the formulations for the personality types have some construct validity in terms of student traits and orientations. The results also indicated that a student was more likely to change fields if there was incongruence between major choice and college environment. Satisfaction with college and the size of the institution was found to be slightly less reliable predictor of satisfaction than homogeneity of the student body. In this study the EAT was used to characterize the college environment (Astin and Holland, 1961).
The findings of the above investigations are difficult to summarize because Holland has explored a wide range of variables. However, some summary conclusions can be made: (a) the findings indicate that people tend to view occupations in stereotyped ways consistent with the theoretical formulations of each of the six personality types; (b) people tend to seek occupational roles consistent with individual self; (c) people with different personality orientations have been shown to have significantly different personal attributes; and (d) results indicate that congruence and consistency in personality-environment interactions can lead to certain predictable outcomes in relationships to stability of vocational choice, vocational and academic achievement and personal stability.

Numerous other studies have been conducted to test the construct validity of Holland's theory, as well as explore the relationship between personality characteristics and vocational choice.

Osipow, Ashby and Wall (1966) tested several hypotheses derived from Holland's theory. Results of the study indicated that generally people in a particular occupation can be classified with respect to their personality and that these personality identifications were related to their initial vocational choices.

In another study, the same authors (Wall, Osipow, and Ashby, 1967) investigated the relationship between the Strong Vocational Interest Blank (SVIB) scores and Holland's personal orientations. The results indicate that in general, Holland's theory possesses considerable construct validity with respect to SVIB scores and vocational choices of college students. The SVIB group scores were consistent with personality categories.
Later, Osipow and Ashby (1968) compared the educational preferences of college freshman with their VPI high point codes. Their findings revealed that for males the Investigative and Realistic, Social and Enterprising, Conventional and Enterprising, Social and Artistic were reported. For females the Social and Artistic categories were reported with the greatest frequency.

A study by Bohn (1966) looked at Holland's model in relation to psychological needs. He found dominance, affiliation, and heterosexuality to be the needs most frequently reported, these results were consistent and supported Holland's theory of vocational stereotypes. Support for the hypothesis about the pattern of needs associated with different occupations was also confirmed in a later study conducted by Lacey (1971).

Research conducted by Folsom (1969) found that, with the exception of the Enterprising type, Holland's description of the type formulations were generally consistent with the ways in which students described themselves on the College Student Questionnaire (CSQ) scales.

Others (Astin, 1965; Walsh and Russel, 1969; Walsh and Barrow, 1971; Walsh and Lewis, 1972; Walsh, Vaudrin and Hummel, 1972) have examined personality differences in relationship to students who make congruent or incongruent college major choices.

A four year longitudinal study by Astin (1965) investigated the effects of college environments on career choice. Evidence was found to support the hypothesis that career is affected by college environment. The findings also revealed that stability of vocational choice is a product of congruence between the student's vocational choice and the characteristics of that corresponding environment.
Walsh and Ryssel (1969), in a study designed to examine congruence and personal adjustment, found that students who had made congruent college major choices experienced fewer adjustment problems, than those students who had made incongruent choices.

Walsh and Barrow, (1971) designed a study to see if congruent and incongruent college major choice groups differ on reported personality variables. In this study the overall test for congruence was not significant. The findings did, however, suggest that congruent female students tend to have more stable college major choices than their congruent male counterparts.

In a similar study (Walsh and Lewis, 1972) it was found that congruent subjects tend to have more stable college major choices, maintain personal stability and experience greater satisfaction than subjects who were found to be incongruent or undecided about a college major.

Walsh, Vaudrin and Hummel (1972) also explored the relationship between an individual and his environment. Using third quarter college freshman who they assigned to one of Holland's personality types to determine if they would perceive themselves as changing in a direction consistent with their dominant personality profile. Their findings indicated that students do tend to change in a direction that is consistent with their personality type and that congruent person-environment interaction can lead to stability and personal satisfaction.

Other studies (Elton, 1971; Walsh and Lacey, 1969; Walsh and Lacey, 1970) have also investigated the developmental person-environment interaction as suggested by Holland's theory. Significant results were reported to support the theory.
In one of the few studies investigating the utilization of Holland's theory with blacks, Wakefield, Yom, Doughtie, Chang and Alston (1975) examined the geometric relationship between Holland's personality types and the Vocational Preference Inventory for blacks. In this study, black undergraduate students were administered the first six scales of the Vocational Preference Inventory (VPI). It was found that Holland's description of personality types are generally more consistent for white subjects than they are for black subjects. Several weaknesses were also found in the scales as they relate to blacks. Comparisons revealed that the Realistic, Intellectual, Social, Enterprising, and Conventional scales for blacks did not correspond as well to Holland's model as it did for their white counterparts.

The same authors (Yom, Doughtie, Chang, Alston and Wakefield, 1975), did a study to test the construct validity of the Vocational Preference Inventory (VPI) for black students. The instrument was administered to a group of black and white subjects and their VPI scores were recorded and analyzed. The findings indicate that the VPI measures the same for both blacks and whites.

In summary, the above research presented suggests support for Holland's theory. The personality types are generally consistent with how the students describe themselves on the scales. Model environments seem to attract or are sought out by the person whose dominant type is similar to the type associated with that environment. Congruent person-environment interactions, in contrast to incongruent interactions are conducive to the following personal performance: (1) more stable vocational choice, (2) higher vocational achievement, (3) higher academic achievement, (4) better maintainance of personal stability, and
greater satisfaction. However, additional research still needs to be conducted to further validate and give support to Holland's theory when working with lower socioeconomic groups and blacks. Holland has admitted that he has neglected the economic and sociological influences upon behavior in his theory.

**Black and White Vocational Interests and Aspirations**

Individuals from different cultures and classes react differently when making vocational choices. Therefore it can be assumed that the interests and aspirations of blacks and whites would differ or be influenced by their diversity of backgrounds. If we are to reverse the current practice of counseling all individuals on the basic assumption of cultural similarity we must understand this process.

Several writers have examined and reviewed the interests and aspirations of black and white individuals. In one of the earliest studies, Witty, Garfield and Brink (1941) did a comparative study of the vocational interests of black and white high school students. From their finding, they concluded that whites tended to prefer those "thing-oriented" occupations and blacks generally selected occupations that were "people-oriented."

Chansky (1965) investigated race, aptitude and vocational interests. He found that black and white students differ significantly in vocational interests. Black students were interested in interpersonal, business, verbal, computational, and occupations requiring long training periods. White students expressed an interest in occupations concerned with nature and machines, and were less concerned about entering low
prestige occupations, regardless of their current interest in the occupations.

Studying enrollment trends of black college freshman, Bayer (1972) found that blacks still choose majors in education, social sciences, business, and the health fields proportionally more than whites. He sees whites choosing fields such as engineering, physical sciences, biological sciences, and agriculture as a major course of study in college.

In exploring how black and white occupational preferences are perceived by each black and white peer group member, Clark and Misa (1967) found that professionally aspiring black males had more influence on their classmates than did their white counterparts.

Since attention is now being focused on the career development of blacks, several authors have recently attempted to examine the validity of the instruments presently being used for assessment.

Hager and Elton (1971), using the Strong Vocational Interest Blank (SVIB), found that black males expressed a greater interest in the social service field than did white males. Borgen and Harper (1973) studied the predictive validity of the Strong Vocational Blank (SVIB) for black and white college males, noting that the Occupational and Basic scales had predictive validity for both blacks and whites. Of particular interest to the present study is Borgen and Harper's warning about using the findings of this study to generalize to blacks from the lower socioeconomic groups and disadvantaged backgrounds. Kimball, Sedlacek, and Brooks (1973), explored black and white vocational interests on Holland's Self-Directed Search (SDS). The results indicate that whites obtained more first choice Realistic codes than blacks, while
black subjects tended to have more first choice Social codes than whites.

Generally, research reports relating to the vocational interests of different racial and socioeconomic groups indicate that youth from higher socioeconomic backgrounds aspire to higher level occupations.

Antonovsky and Lerner (1959) compared the occupational aspirations of lower class black and white youth and found that blacks had higher aspirations than whites. Cosby (1971) studied black and white differences in relation to occupational aspirations and found that within groups with similar socioeconomic backgrounds black students revealed higher occupational aspirations than white students.

Ducette and Wolk (1972) investigated the relationship between locus of control and levels of aspiration in black and white students. They found that black students displaying a greater degree of internal control expected to enter lesser occupations than those who were more externally controlled. In a similar study, Gurin (1969) found that external motivation is associated with higher aspiration levels in terms of individual accomplishments.

In a study designed to identify some characteristics of the process of occupational choice of blacks, Brazziell (1961) studied black teacher education students. He found that a large proportion of the students intended to attempt to move out of the teaching field and into another occupation upon college graduation. Over half of the students had selected teaching as a second occupational choice, justifying their choice in terms of the need for a sure job. Cosby (1974) exploring the dynamics of black occupational choice found that over a period of time
black young people lowered their level of occupational expectancies and that these expectations varied as their occupational aspirations and education expectations changed.

Several other writers have conducted studies that generally support the proposition that white youth especially white males, exhibit higher levels of occupational aspirations than blacks (Holloway and Berreman, 1959; Middleton and Grigg, 1959; and Sprey, 1962; Gottleib, 1964; Kuvelsky and Bealer, 1967).

Gist and Bennet (1963) explored the occupational and educational aspirations of black and white urban high school students and found no major differences between their career aspirations, although blacks did reveal higher mobility aspirations.

To summarize, in spite of the previous research leading to contradictory conclusions, several conclusions seem evident: (1) black youth's interests and aspirations are oriented toward "people oriented" occupations, whereas whites are interested in "Thing-oriented" occupations; (2) inventories currently being used to measure the vocational interest of blacks seem to be valid, but should be further validated with the total black population; (3) levels of aspiration for both blacks and whites, are related to socioeconomic backgrounds.

Socioeconomic Status As A Factor Which Influences Vocational Choice

The results of many studies support the proposition that socioeconomic status influences vocational choice (Barber, 1957; Haller and Miller, 1963; Sewell and Orienstein, 1965; Hyman, 1966). The results of
many of these studies also show that students who come from higher socioeconomic backgrounds have higher status occupational aspirations than their lower socioeconomic counterparts.

In one of the earlier studies, Kroger and Louttit (1935) studied the influence of father's occupation on vocational choices of high school boys. They found a positive correlation between level of occupational status aspirations and social status of family suggesting that motivation is greatly influenced by the occupational values inherent in the environment in which the individual is reared.

In another early study, Ginzberg, Ginsburg, Axelrad, and Herma (1951) investigated the influence of social class on vocational choice. They found that boys from lower socioeconomic levels followed the same general pattern as did those boys from more affluent backgrounds, but were more passive about the process than boys from higher income families.

Super (1953) has also considered the importance of social class and found similar results. Parents' socioeconomic level is a major determinant of career patterns and vocational choice.

Gottlieb (1967) investigated the goals and values of low income black and white youth. His findings take issue with the notion that lower socioeconomic parents do not provide positive role models for their children. Instead, Gottlieb suggests that lower socioeconomic parents do have the desire to assist their children to succeed but lack the resources to help them significantly.

Harrison (1969) investigated the relationship of educational and occupational aspirations to school performance and socioeconomic status.
Harrison found that middle class students desire more and aspire to higher status occupations, while lower class students scale down their aspirations based on their perception of reality.

Pallone, Rickard, and Hurley (1970) studied who black and white students from "working class" families reported as "key influencers" of occupational preferences. For black males they found (in order of descending frequency) parents, teachers, brothers and sisters, relatives, counselors, and neighbors were reported as the "key influencers." The same sex parents were found to be the most potent influencers of occupational preferences for black males.

Blocher (1973) has emphasized the role of the family, suggesting that instability in lower socioeconomic black families influences vocational choice. Blocher feels that blacks are not provided the opportunity to observe positive role models who adhere to the Protestant work ethic. This lack of "good" models tends to mitigate against blacks viewing their lives in terms of work.

In a study conducted by Moulton and Stewart (1971) of upward mobile and low mobile black males it was found that the presence of the father in the home did not significantly discriminate between high and low mobile subjects. It is thus, possible for "fatherless" homes to provide high achieving males who may have acquired many of their skills and values from their mother. It may be that we have overestimated the negative influence of family instability on career choice of blacks.

Campbell and Parsons (1972) studied the vocational planning readiness of disadvantaged and nondisadvantaged students. They found that disadvantaged students gave more thought to school plans and future
occupations, although the nondisadvantaged group chose higher level occupations.

Omivig and Thomas (1974) compared vocational interests (measured by the Ohio Vocational Interest Survey - OVIS) according to socioeconomic status. They found that disadvantaged students displayed higher interest levels than the group that was not disadvantaged. Thomas (1974) also found that social class is a significant factor in determining work values.

Summary

This chapter has presented a review of pertinent literature relevant to the present study. Three basic areas were explored:
(1) critical research studies related to Holland's theory of vocational choice
(2) a review of studies directly related to black and white vocational interests and aspirations
(3) studies that relate socioeconomic factors as important aspects that influence vocational choice.

The review indicates that the results of the research conducted by Holland and his associates generally supports the basic predictions of the theory. However, in closely examining the research on black and white interests and aspirations, differences are noted that tend to confound the understanding of the process of vocational choice for blacks. Therefore, when attempting to apply Holland's theory to blacks (especially those from lower socioeconomic backgrounds), caution must be exercised not to over-generalize or make faulty assumptions about the theory's utility. It has been empirically shown that race and socioeconomic status act as influencing variables on the career decision-making process.
The preceding review also suggests that Holland's theory should not only be applicable to a primarily white middle-class population, but also be comprehensive enough to be applicable to lower income groups and minorities. This investigation therefore attempts to examine the utility of Holland's theory when counseling with these groups.
CHAPTER III

METHODOLOGY

The theory put forth by Holland revolves around two major concepts, personality types and environmental models. He explains the vocational behavior of individuals by the interaction and relationship of the two. The present study represents an exploration of this interaction to determine if, and how, the theory is applicable to lower socioeconomic groups and blacks. Specifically, the purpose of this study was to ascertain if black and white students fall proportionally into the six personality types as described by Holland, and to determine if there are any significant differences in the vocational choices made by black and white students who come from different cultural and socioeconomic backgrounds.

Sample

The sample for this study consisted of a total of 183 black and 140 white male high school students, all volunteer participants enrolled in the Dayton, Ohio School System. The subjects ranged in age from 15 to 19 years. In this study, the subjects were limited to males to avoid confounding the results by including the unclear effects of sex on career choice. Table 1 shows how the total sample was divided into groups.
TABLE 1

SUMMARY OF SAMPLE

<table>
<thead>
<tr>
<th>Socioeconomic Status</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLACK</td>
<td>(N = 96)</td>
<td>BLACK</td>
</tr>
<tr>
<td>WHITE</td>
<td>(N = 63)</td>
<td>WHITE</td>
</tr>
</tbody>
</table>

Total N = 323.

Subjects were categorized by socioeconomic status (high or low) and race (black or white). Socioeconomic status was defined by guidelines established by the U.S. Department of Labor. The low socioeconomic sample consisted of those students eligible for participation in the federally funded free school lunch program. The high socioeconomic subjects were selected from those schools not designated "disadvantaged or Title I", and whose school population was largely affluent. Information about the estimated income of family per year was also obtained from the Vocational Choice Questionnaires. This information was used as a check on the socioeconomic status of the subjects. The mean income reported for the low socioeconomic group was approximately $8,500, while for the high socioeconomic group, $21,000 was reported as the approximate mean income. Middle range income subjects were not used for this study. Race was identified by self-report and observation of subjects. Characteristics such as skin color, facial features, and hair texture was used to distinguish black and white subjects.
features, and hair texture was used to distinguish black and white subjects.

**Instruments**

Holland's (1974) occupational classification booklet, *The Occupations Finder* was used to assess level of vocational choice and to identify congruent and incongruent vocational choice. This booklet contains 465 different occupational titles and these are divided into the six personality types. Each occupational title also has a corresponding level (1 to 6) of general educational development desirable for entry into that particular occupation. Levels 1 and 2 indicate an occupational requirement of elementary school training or less; levels 3 and 4 indicate a high school education and some college training is necessary; and levels 5 and 6 are equated with a college degree.

Each subject in the sample was required to complete a Vocational Choice Questionnaire. This task provided information about the subject's age, school, educational standing, parent's occupation and income, and type of occupation desired by the subject.

Holland's Vocational Preference Inventory (VPI), sixth revision, was also administered to all participants. Only the first six scales (Realistic, Investigative, Social, Conventional, Enterprising, and Artistic) of the instrument were used in this study. The primary purpose for using this inventory was to assess the personality type and vocational choice of each subject.

The Vocational Preference Inventory (VPI) is composed of 160 different occupational titles. The respondent indicates those occupations he finds appealing or interesting and those he dislikes or
finds uninteresting. The instrument permits the identification of the personality type of each subject. The inventory has eleven scales: Realistic, Investigative, Social, Conventional, Enterprising, Artistic, Self-Control, Masculinity, Status, Infrequency, and Acquiescence. The VPI is considered to be an instrument which reveals the individual's interests, needs, values and other traits.

According to the Vocational Preference Inventory Manual (Holland, 1975), the test-retest reliability over short periods of time has been moderate to high (.70 to .80) while longer periods induce a decline of reliability (.40 to .60). Internal consistency and homogeneity of content for the VPI is moderate (.50 to .89) for most scales.

The construct validity of the VPI scales has been demonstrated in numerous studies. Holland (1960) found that students with different dominant personality types have different self concepts, interests, and values. Holland (1962) examined the predictive validity of the VPI. The findings indicated that the VPI was able to predict vocational choices better than chance over a two year period for high aptitude students. However when the VPI predictions were compared to the student's own predictions, the student's predictions were far more accurate. The VPI scales have also been shown to predict extracurricular and curricular interest and accomplishments (Holland and Astin, 1962; Nichols and Holland, 1963).

Procedure

Subjects were initially identified by their respective school counselor, records were screened to determine race and socioeconomic status. A few days previous to the testing, prospective subjects were
gathered and briefed as to the general purpose of the study. Those subjects who then agreed to participate were given an "Agreement Slip" to complete and return. All volunteer subjects were assigned a reporting time and date for testing.

Data were gathered in group sessions, the number of subjects at any one session varied from 20 to 40. At the beginning of each testing session, prior to subjects responding to the instruments, the importance of the research being conducted and the implications that it would have for future students engaged in the process of vocational decision-making were explained. At this time anyone who wished to leave the session could do so.

The subjects were given the standard set of instructions to complete the Vocational Preference Inventory and the Vocational Choice Questionnaire, in that order. Students were asked to take the tests seriously, and to proceed at their own rate of speed. After completion of the instruments, the students were excused. Generally, sessions lasted 90 minutes.

A total of 375 high school student subjects participated in the initial data-gathering period. A total of 25 subjects were lost by failure to complete the "estimated income" portion of the Vocational Choice Questionnaire; 13 subjects were eliminated from the data analysis because they failed to complete the anticipated "vocational choice" portion of the Vocational Choice Questionnaire; and 14 subjects whose anticipated vocational choice was "undecided" or could not be classified
in *The Occupations Finder* were also eliminated from the study. The final sample included 323 subjects.

**Groups**

The eight groups were divided as follows: (1) congruent blacks; (2) congruent whites; (3) congruent high socioeconomic status subjects; (4) congruent low socioeconomic status subjects; (5) incongruent blacks; (6) incongruent whites; (7) incongruent high socioeconomic status subjects; and (8) incongruent low socioeconomic status subjects. Subjects were considered to be congruent when their anticipated vocational choice matched the high point code on the VPI and the corresponding field code listed in the Occupations Finder. For example, a subject whose vocational choice was in the Realistic field and who stated his vocational choice as a bricklayer was considered to be congruent. Subjects were considered to be incongruent when their anticipated vocational choice did not match the high point code on the VPI and the corresponding field code listed in the Occupations Finder. An example of incongruent choice would be a student whose high point code was in the Realistic field, but who stated his vocational choice as Social Worker. Only the first digit was used in coding subjects' choices.

**Hypotheses and Statistical Test**

The specific hypotheses for this study and their statistical tests were as follows:

1. High socioeconomic status subjects will differ significantly from low socioeconomic status subjects in the level of chosen occupations.

   (a) Black and white subjects from the higher socioeconomic status are equal in level of chosen occupations.
(b) Black and white subjects from the lower socioeconomic status are equal in the level of chosen occupations.

(c) Black subjects from the higher socioeconomic status differ significantly from the lower socioeconomic status black subjects in the level of chosen occupations.

(d) White subjects from the higher socioeconomic status differ significantly from the lower socioeconomic status white subjects in the level of chosen occupations.

2. Higher socioeconomic status subjects do not differ significantly from lower socioeconomic status subjects in fields chosen.

3. There is a significant difference in the choice of fields of black and white subjects, with black subjects choosing realistic, social, and artistic fields with more frequency than white subjects.

4. Higher socioeconomic status subjects will express more "yes" responses (independent of field) on the Vocational Preference Inventory than low socioeconomic status subjects.

   (a) Black and white subjects from the higher socioeconomic status are equal in the number of "yes" responses.

   (b) Black and white subjects from the lower socioeconomic status are equal in the number of "yes" responses.

   (c) Black subjects from the higher socioeconomic status are different significantly from the lower socioeconomic status black subjects in the number of "yes" responses.

   (d) White subjects from the higher socioeconomic status are different significantly from the lower socioeconomic status white subjects in the number of "yes" responses.

5. Socioeconomic status and race are significant factors associated with congruence between type and choice.

   (a) Higher socioeconomic status subjects are significantly more congruent than lower socioeconomic status subjects.

   (b) White subjects are significantly more congruent than black subjects.
To test the first four hypotheses, an analysis of variance for unequal N's were performed. A chi square analysis was employed to test the fifth hypothesis. Post hoc analysis of significance between group differences were examined by means of the Scheffe' procedure (Scheffe', 1959) to identify the location of significance.

The .05 level of significance was selected to test the hypotheses.

Summary

This chapter presented the procedures of research involved in this study. The writing included a description of the sample, the test instrument, a description of the exact procedure followed in gathering the data for this study, the hypotheses and statistical tests.
CHAPTER IV

RESULTS

This chapter will present the results of the data analysis derived from the use of Holland's Vocational Preference Inventory and the Vocational Choice Questionnaire.

An analysis of variance for unequal N's was employed to test hypotheses one, two, three, and four. Hypothesis five was tested using a chi square analysis.

The summary analysis of variance for the first hypothesis is presented in Table 2. The test for main effect of race and socioeconomic status was found to be significant (p < .05). The hypothesis that higher socioeconomic status subjects will differ significantly from lower socioeconomic status subjects in level of chosen occupations was supported. A significant (p < .05) interaction effect of race and socioeconomic status was found. The data were submitted to multiple comparisons through the use of the Scheffe' test. The Scheffe' test is a conservative procedure in terms of minimizing type 1 errors. Table 3 summarizes the Scheffe' analysis of all level scores according to race and socioeconomic status.

When all possible combinations of race and socioeconomic status were compared, this analysis revealed that black high socioeconomic
**TABLE 2**

SUMMARY OF THE ANALYSIS OF VARIANCE OF LEVEL SCORES ACCORDING TO RACE AND SOCIOECONOMIC STATUS (SES)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>1</td>
<td>4.2976</td>
<td>4.2976</td>
<td>5.1170</td>
<td>0.02436</td>
</tr>
<tr>
<td>SES</td>
<td>1</td>
<td>17.6076</td>
<td>17.6076</td>
<td>20.9647</td>
<td>0.00001</td>
</tr>
<tr>
<td>Race and SES</td>
<td>1</td>
<td>3.1976</td>
<td>3.1976</td>
<td>3.8073</td>
<td>0.05190</td>
</tr>
<tr>
<td>ERROR</td>
<td>319</td>
<td>267.9191</td>
<td>0.8398</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 3**

SUMMARY OF THE SCHEFFE' ANALYSIS OF ALL POSSIBLE COMBINATIONS OF LEVEL SCORES ACCORDING TO RACE AND SOCIOECONOMIC STATUS (SES)

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Mean</th>
<th>Observed F</th>
<th>Critical F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black High SES vs</td>
<td>4.9270</td>
<td>8.569</td>
<td>7.80</td>
<td>.05</td>
</tr>
<tr>
<td>White High SES</td>
<td>4.4920</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Low SES vs</td>
<td>4.2528</td>
<td>.050</td>
<td>7.80</td>
<td>*NS</td>
</tr>
<tr>
<td>White Low SES</td>
<td>4.2270</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black High SES vs</td>
<td>4.9270</td>
<td>24.696</td>
<td>7.80</td>
<td>.05</td>
</tr>
<tr>
<td>Black Low SES</td>
<td>4.2528</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White High SES vs</td>
<td>4.4920</td>
<td>3.036</td>
<td>7.80</td>
<td>*NS</td>
</tr>
<tr>
<td>White Low SES</td>
<td>4.2270</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not Significant.
status subjects differed significantly from white high socioeconomic status subjects (p < .05) in level of chosen occupations. Black and white subjects from the lower socioeconomic status were equal in their level of chosen occupation (see Table 2 and 3). Black high socioeconomic status subjects did differ significantly from black low socioeconomic status subjects (p < .05) in their level of chosen occupations. White high socioeconomic status subjects did not differ significantly from white low socioeconomic status subjects (see Table 2 and 3).

Table 4 shows the results of the analysis of variance of scores on the Vocational Preference Inventory in relation to socioeconomic status and field chosen. The test for the main effect of high and low socioeconomic groups was found to be not significant (p > .05). However, in the test for the main effect of field and the test for the interaction effect of socioeconomic status and field, significant results were revealed (p < .05). The hypothesis that higher socioeconomic

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socioeconomic Status</td>
<td>1</td>
<td>2.1205</td>
<td>2.1205</td>
<td>0.0492</td>
<td>0.82469</td>
</tr>
<tr>
<td>Field</td>
<td>5</td>
<td>1538.0619</td>
<td>307.6123</td>
<td>50.3402</td>
<td>0.00000</td>
</tr>
<tr>
<td>SES and Field</td>
<td>5</td>
<td>97.9776</td>
<td>19.5955</td>
<td>3.2068</td>
<td>0.00693</td>
</tr>
</tbody>
</table>
status subjects will not differ significantly from lower socioeconomic-status subjects in fields chosen was supported.

In Table 5 are reflected the frequency distribution and chi square analysis of high point codes on the Vocational Preference Inventory and the Vocational Choice Questionnaire according to socioeconomic status, and field. The largest disparity is reported on the Realistic field.

**TABLE 5**

**SUMMARY OF THE FREQUENCY DISTRIBUTION AND CHI SQUARE ANALYSIS OF HIGH POINT CODES ON THE VOCATIONAL PREFERENCE INVENTORY AND THE VOCATIONAL CHOICE QUESTIONNAIRE ACCORDING TO SOCIOECONOMIC STATUS (SES) AND FIELD**

<table>
<thead>
<tr>
<th>Field</th>
<th>R</th>
<th>I</th>
<th>S</th>
<th>C</th>
<th>E</th>
<th>A</th>
<th>N</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>56</td>
<td>21</td>
<td>13</td>
<td>12</td>
<td>37</td>
<td>20</td>
<td>159</td>
<td>Vocational Preference Inventory</td>
</tr>
<tr>
<td>Low SES</td>
<td>78</td>
<td>18</td>
<td>21</td>
<td>13</td>
<td>27</td>
<td>7</td>
<td>164</td>
<td>Vocational Choice Questionnaire</td>
</tr>
</tbody>
</table>

\[ X^2 = 13.52, \quad p < .025 \]

<table>
<thead>
<tr>
<th>Field</th>
<th>R</th>
<th>I</th>
<th>S</th>
<th>C</th>
<th>E</th>
<th>A</th>
<th>N</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>64</td>
<td>32</td>
<td>9</td>
<td>8</td>
<td>30</td>
<td>16</td>
<td>159</td>
<td>Vocational Choice Questionnaire</td>
</tr>
<tr>
<td>Low SES</td>
<td>102</td>
<td>20</td>
<td>7</td>
<td>6</td>
<td>12</td>
<td>19</td>
<td>164</td>
<td></td>
</tr>
</tbody>
</table>

\[ X^2 = 19.85, \quad p < .005 \]

Table 6 contains the mean scores and standard deviations for the black and white groups on the Realistic, Social and Artistic scales of the Vocational Preference Inventory.
TABLE 6
MEAN SCORES AND STANDARD DEVIATIONS FOR THE BLACK AND WHITE GROUPS ON THE REALISTIC, SOCIAL AND ARTISTIC SCALES OF THE VOCATIONAL PREFERENCE INVENTORY

<table>
<thead>
<tr>
<th>Scale</th>
<th>Blacks (N-183)</th>
<th></th>
<th></th>
<th>Whites (N-140)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Realistic</td>
<td>4.197</td>
<td>3.580</td>
<td>3.029</td>
<td>3.109</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>4.137</td>
<td>3.874</td>
<td>2.536</td>
<td>2.667</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artistic</td>
<td>4.820</td>
<td>3.628</td>
<td>5.950</td>
<td>3.268</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reflected in Table 7 are the analysis of variance F tests for the Realistic, Social and Artistic scales. Overall, the test for the main effect of race was found to be significant (p < .05). On the Realistic scale, blacks had a higher mean score than whites. Blacks also had a higher mean score on the Social scale. However, whites had the higher

<table>
<thead>
<tr>
<th>DF</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multivariate</td>
<td>3/319</td>
<td>7.902</td>
</tr>
<tr>
<td>R</td>
<td>1/321</td>
<td>9.449</td>
</tr>
<tr>
<td>Univariate</td>
<td>S</td>
<td>1/321</td>
</tr>
<tr>
<td>A</td>
<td>1/321</td>
<td>.111</td>
</tr>
</tbody>
</table>
mean score on the Artistic scale when compared to the black group. The results support two of the three predicted racial differences stated in the third hypothesis. Comparisons do reveal significant differences for the Realistic and Social scale (p < .05). However, as reflected in Table 7, no significant differences were reported for the Artistic scale (p > .05).

Tables 8 and 9 show the frequency distribution of high point codes and chi square analysis for the black and white groups.

### TABLE 8

**SUMMARY OF THE FREQUENCY DISTRIBUTION AND CHI SQUARE ANALYSIS OF HIGH POINT CODES FOR THE BLACK AND WHITE GROUPS ON THE REALISTIC, INVESTIGATIVE, SOCIAL, CONVENTIONAL, ENTERPRISING, AND ARTISTIC SCALES OF THE VOCATIONAL PREFERENCE INVENTORY**

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>I</th>
<th>S</th>
<th>C</th>
<th>E</th>
<th>A</th>
<th>Vocational Preference Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Black</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N=96</td>
</tr>
<tr>
<td>High SES</td>
<td>30</td>
<td>15</td>
<td>9</td>
<td>7</td>
<td>23</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Low SES</td>
<td>45</td>
<td>2</td>
<td>10</td>
<td>7</td>
<td>13</td>
<td>10</td>
<td>N=87</td>
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<tr>
<td></td>
<td>X = 15.53, p &lt; .01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N=63</td>
</tr>
<tr>
<td>High SES</td>
<td>30</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Low SES</td>
<td>44</td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>N=77</td>
</tr>
<tr>
<td></td>
<td>X = 5.07, p &gt; .25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 9

SUMMARY OF THE FREQUENCY DISTRIBUTION AND CHI SQUARE ANALYSIS OF HIGH POINT CODES FOR THE BLACK AND WHITE GROUPS ON THE VOCATIONAL CHOICE QUESTIONNAIRE

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>I</th>
<th>S</th>
<th>C</th>
<th>E</th>
<th>A</th>
<th>N</th>
<th>Vocational Choice Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High SES</td>
<td>24</td>
<td>26</td>
<td>9</td>
<td>7</td>
<td>18</td>
<td>12</td>
<td>N=96</td>
<td></td>
</tr>
<tr>
<td>Low SES</td>
<td>51</td>
<td>14</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>N=87</td>
<td></td>
</tr>
</tbody>
</table>

\[ \chi^2 = 21.10, \quad p < .001 \]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>N</th>
<th>Vocational Choice Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High SES</td>
<td>33</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>7</td>
<td>N=63</td>
<td></td>
</tr>
<tr>
<td>Low SES</td>
<td>51</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>9</td>
<td>N=77</td>
<td></td>
</tr>
</tbody>
</table>

\[ \chi^2 = 7.66, \quad p > .1 \]

The analysis of variance scores on the Vocational Preference Inventory comparing frequency of "yes" responses according to race and socioeconomic status are summarized in Table 10. The test for the main effect of race was found to be significant (p < .05). However, the test for the main effect of socioeconomic status and the interaction effect of race and socioeconomic status failed to reach significance (p > .05). The mean score for black subjects was 54.9398 versus 45.5101 for white subjects. Black subjects tended to have more "yes" responses than white subjects. These results failed to support the fourth hypothesis.
A summary of the chi square analysis of scores on congruence according to socioeconomic status and race is presented in Table 11. The test for the main effect of socioeconomic status was not significant (p > .50). Thus, the hypothesis that higher socioeconomic subjects will be significantly more congruent than lower socioeconomic is not supported. The results indicate that the test for main effect of race was significant (p < .01), therefore the hypothesis that more white subjects will be significantly more congruent than black subjects is supported.
TABLE 11

SUMMARY OF THE CHI SQUARE ANALYSIS OF SCORES ON CONGRUENCE* ACCORDING TO SOCIOECONOMIC STATUS (SES) AND RACE

<table>
<thead>
<tr>
<th></th>
<th>Congruent</th>
<th>Incongruent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>73</td>
<td>86</td>
</tr>
<tr>
<td>Low SES</td>
<td>81</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>$X^2 = .392, \quad p &gt; .50$</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>75</td>
<td>108</td>
</tr>
<tr>
<td>White</td>
<td>79</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>$X^2 = 7.585, \quad p &lt; .007$</td>
<td></td>
</tr>
</tbody>
</table>

Summary

Socioeconomic status is a "key" influencer in determining level of vocational choice. Racial differences seem secondary in differentiating level of choice. Because of the race by socioeconomic status interaction, it is likely that socioeconomic status operates on career choice differently for blacks than for whites. Thus, the first hypothesis was partially supported.

The results show however, that there is little difference in the fields that are chosen by high and low socioeconomic groups. These results tend to support the second hypothesis.
Two vocational scales, Realistic and Social, of the Vocational Preference Inventory were chosen with more frequency by black subjects than white subjects. The third scale, Artistic, was chosen more by white subjects than by black subjects. Racial differences were evident in the choices of fields. The third hypothesis was supported.

Socioeconomic status did not prove to be significantly related to the number of "yes" responses on the Vocational Preference Inventory. Hypothesis four was not supported.

Congruence of choice is not influenced by socioeconomic status, but race seems to contribute to this variable. The results show that white subjects tend to be more congruent than black subjects when selecting an occupation. Thus, hypotheses 5a is rejected, and 5b is supported.
CHAPTER V

DISCUSSION

This study was designed to look at the relevant contribution of socioeconomic status and race separately on vocational choice. Specifically, the study investigated the question of whether black and white students fall proportionally into the six personality types as described by Holland, and whether there are any significant differences in the level of vocational choices made by black and white students who come from different cultural and socioeconomic backgrounds.

Of specific interest in this study was the extent to which Holland's theory of vocational choice is applicable to blacks and lower socioeconomic groups. Historically vocational choice theories have not been applied effectively to blacks and lower socioeconomic status groups. There is much evidence to show that blacks do not enjoy as high a level of occupational status as do their white counterparts (U.S. Bureau of the Census: 1975). By examining the interrelationship among race, socioeconomic status and vocational choice, the author hopes to further the effort to devise a complete vocational theory applicable not only to blacks, but to every segment of the population.

Holland (1966) has emphasized a need to apply various sociological and demographic variables to his classification schema to help test and expand the usefulness of the theory.
The findings of the present study seem to generally support Holland's research. On five scales (Investigative, Social, Conventional, Enterprising, and Artistic) of the VPI, blacks and whites were generally evenly distributed across fields (See Table 8). On the one scale (Realistic) there were a disproportionately high number of responses. According to Holland, this indicates that individuals tend to be more attracted toward the Realistic field. A close examination, however, reveals that about 25% of the occupations in Holland's Occupation's Job Finder fall into the Realistic category. The demand for labor, and the economic and social conditions of the times will generally determine and influence vocational choice. The fact that many blacks and other low socioeconomic groups now occupy low level jobs that are classified under the Realistic field is not necessarily an indication that this reflects some personality trait, but is likely to be a condition of having limited opportunity for career advancement (Osipow, 1975).

It seems important, then, that counselors who are working with blacks be aware that there is more to consider than just having the individual be "qualified" for the job. Judicious judgment should also be used so that clients are not systematically "guided" or "pushed" into these low level type occupations. In addition, one must take into account the environmental forces which act to prevent occupational entry and the upward mobility of blacks.

The results of the present study also indicates that family background and socioeconomic status differentiates the level of vocational choice made by the individual. Meir (1968) and Roe and Klos (1969) conclude from their research that it is difficult to assess psychological
differentiation in the lower level type occupations because individual characteristics are so similar. Most of the lower socioeconomic groups responses to the question "first choice vocation" were occupations classified under the Realistic field, i.e., automobile mechanic, painter, truck driver, bus boy, and bus driver.

A number of differences may be noted when examining the effects of socioeconomic status and race. Black and white subjects from higher socioeconomic backgrounds were found to be significantly different in terms of the levels of occupations they chose (See Table 3). This finding would seem to indicate that cultural background (eg. socioeconomic status) is an important variable affecting the decision-making process.

Within racial groups, it was noted that there was a significant difference between high and low income blacks in their level of choice. This difference seems logical in view of the probable effects of socioeconomic status membership on vocational choices as discussed earlier.

Concurrently, high socioeconomic whites were not significantly different from their low socioeconomic counterparts in level chosen. For whites there generally has been few, if any real barriers to prevent them from navigating the career ladder. The white subculture seems more homogeneous regarding occupational level aspirations than the black subculture, which is contrary to most people's expectations.

The data also support further findings that seem consistent with Holland's classification schema. Unlike race, socioeconomic status does not seem related to field of choice (See Tables 4 and 5). High socioeconomic subjects do not differ significantly from their low socioeconomic
counterparts. In analyzing the choice of field selected by black and white subjects, it was found that the largest difference for blacks seem to be higher mean scores on the Realistic and Social scale. Whites had a higher mean score on the Artistic scale. These findings indicate that there are significant racial differences in the choice of fields (p < .05), with blacks choosing the Realistic and Social fields with more frequency than whites. Bayer and Boruch (1969) and Hager and Elton (1971) both found similar results. However, it would seem that as before, these findings may be more indicative of the labor market than of some personality trait.

The data do not support the contention that higher socioeconomic status subjects will have more "yes" responses (independent of field) than lower socioeconomic status subjects on the Vocational Preference Inventory. The test for the main effect of socioeconomic status failed to reach significance (p > .05). The test for the main effect of race, however, was significant (p < .05). The results of the present study, at least for blacks, indicate that we can not be assured that low socioeconomic status blacks have the same preferences and aspirations as their higher socioeconomic status black counterparts. For the whites there seems to be a lot of similarity between the high and low socioeconomic groups. These findings suggest that racial background is related to an openness to occupational alternatives. Results of studies by Chansky (1965), Ducette and Wolk (1972), and Cosby (1974) are consistent with these findings.

When considering whether socioeconomic status and race are significant factors associated with congruence, the results tend to suggest
that socioeconomic status is not associated with congruent and incongruent vocational choices. For the racial variable, the test for main effect was significant \( p < .05 \). White subjects tended to report more congruent choices than blacks. In general, these findings suggest that congruent vocational choices for whites may be associated with open entry into every occupational level, greater satisfaction and stability, better personal adjustment, and overall greater maturity in exploring the world of work. To be defined as congruent according to Holland's model, blacks must have positive role models in all fields and levels of occupations. Currently a large percentage of the black working population are in the low level and low status positions. With this being the case, caution should be exercised in defining congruency for blacks. The process of career development for blacks is different and is influenced by different variables, both social and personal.
Summary

This study attempted to investigate the utility of Holland's theory when counseling with black students. Specifically, the purpose of this study was to ascertain if black and white students fall proportionally into the six personality types as described by Holland and to determine if there are any significant differences in the level of vocational choices made by black and white students who come from different cultural and socioeconomic backgrounds.

The sample used in this study consisted of 183 black and 140 white male high school students, all volunteer participants enrolled in the Dayton, Ohio School System. Each subject completed the following instruments: (1) The Vocational Preference Inventory (VPI) which was used to assess the personality type and vocational choice of each subject; and (2) The Vocational Choice Questionnaire which was used to provide information about the subject's age, school, educational standing, parent's occupation and income, and type of occupation desired.

Major Findings and Conclusions

Findings from the analysis of the data indicate that socioeconomic status is significantly related to occupational level chosen. The higher socioeconomic status subjects were significantly different from
the lower socioeconomic status subjects in their level of chosen occupation. Although the test for the main effect of race was found to be significant and there were racial differences noted, this relationship seemed secondary to socioeconomic status. These results seem to indicate that there is a complex relationship between socioeconomic status and race operating on vocational choice.

In fields chosen, (with the exception of the Realistic field) there was generally an even distribution across the fields by socioeconomic status (See Table 5). Higher socioeconomic status subjects did not differ significantly from the lower socioeconomic status subjects in fields chosen.

For the most part, black subjects chose Realistic and Social occupations with more frequency than whites. Occupations in the Artistic field were chosen more by white subjects than by blacks.

It was also noted that black subjects expressed more "yes" responses on the Vocational Preference Inventory than whites.

Congruence of vocational choice was found not to be influenced by socioeconomic status. Rather, congruence was found to be related to race, white subjects tended to have more congruent vocational choices than blacks.

Limitations

The results of this study are subject to a number of limitations. First, the population from which the sample was drawn was not truly random. The sample was drawn from a male high school population, therefore generalizations from the study are limited to male high school
students. Perhaps a more heterogenous population would have resulted in a different outcome.

Second, only the single high point code of the VPI was used. Only a match between the first letter of the first anticipated vocational choice as denoted in The Occupations Finder booklet and the high point code of the VPI was used to define congruence. This method of defining congruence may not have been sufficiently discriminating. A more discriminating definition of congruence would have possibly been agreement between the subject's first and second highest point codes on the VPI. The later method would have discriminated, for example, between vocational choices such as bricklayer versus welder, which dominant orientations are Realistic-Conventional and Realistic-Investigative respectively.

Third, there is the limitation of Holland's personality types, more specifically, the lack of discreteness between types. The question of to what extent can a personality type be present in its purest form has been raised by Osipow, Ashby, and Wall (1966). There is overlap between the types which make it seem probable that most individuals are a combination of all six of Holland's personality types.

Fourth, as many of these high school students get older their socioeconomic status may change, if this is true, this would surely affect any future vocational plans they might have.

Finally, no consideration was given to the fact that many high school students are also uncertain about their future vocational plans and frequently will change their anticipated vocational choice before
graduation. This variable may have affected the accuracy of the assigned personality types.

Implications

Some practical implications of the present study are clear and unequivocal. However, the significant implication derived from this study is that it indicates that Holland's theory of vocational choice can have some relevance for blacks and low socioeconomic groups. The applicability of Holland's theory has been demonstrated and discussed earlier.

The data suggest that social class membership is just as important as race, and that both variables influence the career development process. Counselors must exercise caution when the Vocational Preference Inventory, (VPI) is being used for career counseling, because, unfortunately, there could be possible inappropriate negative implications for blacks and other groups. A clear illustration would be a counselor who uses the VPI scores as traits which are then matched to place or direct black clients into lower level type occupations, such as those listed in the Realistic and Conventional fields described by Holland.

Since a large number of occupations are classified disproportionately or have a restrictive range of vocational choice for individuals, (according to Holland's classification) future studies must therefore pursue to expand the personality types to provide a broader base from which we can better assess the utility of the theory.

Future studies should be conducted to examine the similarities of high and low socioeconomic status levels within the black working
population. Other studies might also further explore the relationship which might exist for those individuals who are members of some special minority group (whether it be racial, religious, or sexual) and determine how this membership affects the vocational choice process. Investigations in this area might well point out marked discrepancies which hinder the career development process.

It is the hope of this writer that the present study has contributed to some degree, to knowledge, and to motivating and stimulating others to do future research in this area, so that the process of career development can be further facilitated for blacks.
Dear Student:

As part of my graduate work at The Ohio State University, under the direction of Dr. Samuel H. Osipow, Professor of Psychology, I am studying the vocational choice process. Your principal has given me permission to seek your assistance. From this study we hope to learn information that will allow us to be more helpful to students in planning their school and work activities. To participate in this study, you will be asked to fill out a Vocational Preference Inventory, in which you will tell us about the occupations you like or dislike and a Vocational Choice Questionnaire, asking about the vocation you expect to enter after high school, parents occupation and approximate income.

I AGREE TO PARTICIPATE IN THIS STUDY __________________________________

Student's Signature Date

Parent or Guardian's Signature Date

PARTICIPANTS WHO WOULD BE INTERESTED IN RECEIVING A SUMMARY OF THIS RESEARCH, CHECK THIS BLOCK.

I DO NOT WISH TO PARTICIPATE IN THIS STUDY
VOCATIONAL CHOICE QUESTIONNAIRE

The following questionnaire and inventory (VPI) will be used in a research study designed to provide information that can be utilized to help students make wise vocational choices and plans. Although this information may not be of immediate help to you, with your cooperation, it can assist other students in the future. PLEASE GIVE THESE QUESTIONS CAREFUL THOUGHT AND ANSWER THEM AS COMPLETELY AND ACCURATELY AS YOU POSSIBLY CAN.

Name_________________________________________Date_____________________________________

School________________________________________Grade_______Homeroom_____________________

Address_______________________________________Phone No.______________________________

Place of Birth_________________________________Date of Birth_____________________________

1. After high school (or further training), the vocation which I expect to enter is:
   First choice
   Very Sure                     Not Sure
   Sure                        Not Sure
   Second Choice
   Very Sure                     Not Sure
   Sure                        Not Sure
   (CIRCLE THE DEGREE OF SURENESS OF EACH CHOICE)

2. What courses in school do you like best?____________________________________________________

3. Do you expect to go to college?_____________________________________________________________

4. If you live with only one parent, which one?_________________________________________________

5. Number of persons presently living at home, including your parents?___________________________

6. Where does Father work?__________________________Occupation____________________________

7. Where does Mother work?__________________________Occupation____________________________

8. Estimated income of family per year?_________________________________________________________


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