THE RELATIONSHIP OF CENTRALITY OF OCCUPATIONAL CHOICE TO SEX, PARENTAL IDENTIFICATION, AND SOCIOECONOMIC LEVEL IN UNIVERSITY UNDERGRADUATE STUDENTS

> Thests for the Degree of Ph. D. MICHIGAN STATE UNIVERSITY Gladys T. Strahl 1967



This is to certify that the

thesis entitled The Relationship of Centrality of Occupational Choice to Sex, Parental Identification, and Socioeconomic Level in University Undergraduate Students

presented by

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has been accepted towards fulfillment of the requirements for

PhD degree in Education

Major professor

Date November 17, 1967

O-169



ABSTRACT

THE RELATIONSHIP OF CENTRALITY OF OCCUPATIONAL CHOICE TO SEX, PARENTAL IDENTIFICATION, AND SOCIOECONOMIC LEVEL IN UNIVERSITY UNDERGRADUATE STUDENTS

by Gladys T. Strahl

This study was undertaken to investigate the relationship between centrality of occupational choice and sex, parental identification, and socioeconomic level. Psychological centrality or ego-involvement in occupational choice appears to be associated with job satisfaction and the implementation of the self concept in an occupation. Since the investigator was unable to find empirical research that dealt directly with centrality of occupational level, the basis for the study was largely theoretical. The conceptualization of Stefflre (1966) that centrality of occupational choice will be indicated by congruence among self, self concept, occupational "persona" (job personality), and occupational role expectation, was the theoretical framework for this study. Stefflre (1966) proposed that in general the job will be more central for males than for females and for the middle class than for the lower and upper class. In addition, the study considered the relationship between parental identification and centrality of occupational choice.

Participants in the study were 84 male and 102 female undergraduate students tested at the beginning of their freshman year and at the end of their sophomore year at Michigan State University. As freshmen, subjects rated themselves and their parents on the Interpersonal Check List (ICL). Identification was measured by the discrepancy between self and each parent on the ICL. As sophomores, subjects rated themselves, their occupational persona, and their occupational role expectation on the ICL. Centrality was measured by the deviation between the three concept scores and the average of the scores. As sophomores, subjects also filled out an occupational choice questionnaire which included information on the father's occupation. Socioeconomic level was measured by ratings of father's occupation on the basis of a 1963 replication of the 1947 occupational prestige ratings from the National Opinion Research Center survey.

It was hypothesized that (1) occupational choice is more central for males than for females, (2) centrality of occupational choice is not affected by the kind of identification with parents, and (3) centrality of occupational choice is not affected by socioeconomic level.

To test Hypothesis One as to whether males are more central in occupational choice than females, (1) the Mann-Whitney U Test was used to determine differences on the ICL, and (2) the Student's t Test was used to compute differences in responses to reasons for occupational choice. The hypothesis was rejected: males were not significantly more central than females on occupational choices, although results approached significance on the first part of the hypothesis.

Hypothesis Two was tested by using the Kruskal-Wallis One-Way Analysis of Variance. The null hypothesis was rejected for males, suggesting that occupational choice is affected by kind of identification with parents. The centrality group means for males showed that males' centrality is affected most by identification with both parents, second by identification with father, third by identification with mother, and last by identification with neither parent. The null hypothesis was not rejected for females: centrality of occupational choice is not affected by the kind of identification with parents.

The third hypothesis was tested by using a Spearman Rank Order Correlation. The null hypothesis was rejected for males since centrality of occupational choice and socioeconomic level were positively correlated (rs=.22). The males with most centrality of occupational choice were from a lower socioeconomic level. The null hypothesis was not rejected for females: centrality of occupational choice is not affected by socioeconomic level.

Evaluation of this study led the investigator to suggest additional research possibilities on centrality of occupational choice with both university students and employed males and females.

THE RELATIONSHIP OF CENTRALITY OF OCCUPATIONAL CHOICE TO SEX, PARENTAL IDENTIFICATION, AND SOCIOECONOMIC LEVEL IN UNIVERSITY

UNDERGRADUATE STUDENTS

By the By the By the By By the By the

A THESIS

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Counseling, Personnel Services, and Educational Psychology

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DEDICATION

to Maury

who walked beside me

ACKNOWLEDGMENTS

The author wishes to express her deep appreciation to her committee chairman, Dr. Norman Kagan, whose help extended throughout her graduate program to the completion of this thesis, to Dr. William Mueller whose statistical insights and continuing support were of utmost value, to Dr. Buford Stefflre whose writings influenced the idea for this study and whose advice added necessary reassurance, and to Dr. William Sweetland whose interest and encouragement meant so much.

Thanks to Gerald Musgrave for his assistance with computer procedures.

Thanks to my colleagues, Ted Hill and Tony Jabury, for being part of my doctoral experience.

Sincere gratitude is felt and expressed to Josephine Morse and Bill Kell for stimulating and sharing my change and growth.

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CHAPTER I

NATURE OF THE PROBLEM

Introduction

The centrality 1 of his occupation in the life of an individual is often the basis for his personal investment in that occupation. When a person makes an occupational choice that is psychologically central or ego-involving, he not only is telling others something of his education, his status, and his future potential but also he may be saying something about how he sees himself on the job, his occupational identity. This concept of identity is important to our present culture, particularly in relation to choices made by young men and women. According to Keniston (1962), many of today's young people are not making the change from a youth culture to an adult world of personal commitment to society and work but rather continue to involve themselves in a private enjoyment of life and in leisure rather than work activities. Havighurst (1964) states that some of our youth become ego-involved entrepeneurs of society with energy and drive for their work but that a larger number become the maintainers of society whose work is acceptable but not

¹Centrality means, hereinafter, that an occupation is central to an individual's life. It can be used synonymously with the concept of ego-involvement in an occupation. See <u>Definition of Terms</u> in this chapter for an operationalized definition of centrality.

absorbing or central to their lives. However, this author maintains that occupations with the highest proportions of ego-involvement are claiming an increasing share of the labor market and that young people in college have a growing range of occupational choices by which they can achieve their more complex identity in ego-involved work (Havighurst, 1964, 230-231).

The above concept of centrality in occupational choice is of concern to the area of vocational exploration. Researchers theoretically relate ego-involvement in work to job satisfaction and to implementation of the self concept. Havighurst (1964) suggests that a person who wants to serve society as well as himself through his work will be ego-involved and satisfied with his occupation. In self concept theory, the inference is that the self concept is implemented in an occupational choice because a person's perception of himself influences his occupational decision (Super, 1957). It is assumed that centrality or ego-involvement, or the lack of it, is part of the occupational decision and that the more central an occupation is to an individual the more closely it will satisfy his sense of self.

As important as this assumption of centrality is to the field of vocational theory, this investigator found little research that attempted to determine the variables involved in centrality of occupational choice. Stefflre (1966) introduced theoretical propositions that hypothesize several factors that may be involved in centrality and periphery of choice of occupation. He proposes that in general the job is of more central importance to men than to women in our present culture as well as being more central

to the middle class than to the lower class or upper class. These propositions have not been studied empirically. Another variable that has stimulated considerable research is the question or what effect parents have on their children's vocational choices. The concept of centrality and its relationship to identification with parents has not been considered in research. If a relationship can be found between such differentiating variables as the above and centrality of occupational choice, more will be known of the concept of centrality in vocational exploration. If a relationship is not found, the importance of these variables to this concept may, with the particular sample used, be questioned. Therefore, the present investigation is designed to learn more about the concept of centrality in occupational choice. More specifically, the investigation will attempt to demonstrate empirically that variables of sex, identification with parents, and socioeconomic status will affect the centrality of occupational choice.

Statement of Purpose

The purpose of this investigation is to determine the relationship between the centrality of occupational choice of a group of university undergraduates and their sex, parental identification, and socioeconomic level.

Theory

The major theoretical basis for this study is the concept formulations of Stefflre (1966) who discussed a relationship between society

and a person's selection of an "occupational persona" which is percived as the mask an individual wears on his job that reveals some of him and hides some of him. The importance of an occupational persona or "job personality" varies from being psychologically peripheral to being central and its election will be influenced by congruence among the self, the self concept, the occupational persona, and the occupational role expectation (Stefflre, 1966, 614). This author suggests that sex, socioeconomic level, cultural background, and certain societally limiting forces which vary from the essential to the accidental affect the choice of the occupational persona. It is the rare individual who chooses an occupation with complete freedom (Stefflre, 1966, 612). Specifically, Stefflre (1966) names the societally limiting forces affecting choice as philosophical, psychological, sociological, economic, and accidental (situational) and postulates that men more than women and middle class more than the other classes are influenced by forces at the philosophicalpsychological end.

The kinds of influences on occupational choice suggested by Stefflre (1966) are supported by Roe (1964) who stated that, although occupational behavior is both conditioned by and expressive of personality, it is also conditioned by the state of the culture, the position of the family, the labor market, wars and depressions. Stefflre's (1966) proposal that there are sex differences in centrality of occupational choice is indirectly supported by other researchers who found that vocational life histories of women are characteristically different from men (Erikson, 1964; Roe, 1964).

Research Hypotheses

The theoretical propositions of Stefflre (1966) as well as research which deals indirectly with the theoretical concept of psychological centrality of occupational choice serve as the basis for the research hypotheses that are developed and tested in this study.

Vocational theorists have considered women to be on the periphery of the work world for reasons ranging from ambivalence about their sex role to over-concern with and emphasis on marriage (Borow, 1966; Dourvan & Gold, 1966). In a society that has so many women in the labor force (Wolfbein, 1964), it is important to know more about women's attitudes toward work. In this respect, Stefflre's (1966) question as to whether or not an occupation is more central to males than to females seems pertinent to consider. Whether this difference between males and females will show up in stated occupational choices is not known. The hypothesis to test this question is:

Occupational choice is more central for males than for females.

Although the concept of centrality of occupational choice in relation to identification with parents has not been studied specifically, research indicates a relationship between identification with parents and problems in vocational choice (Brunkan, 1966) and between identification with parents and vocational interests (Crites, 1962). Since no previous research is available on centrality of occupational choice and parental identification, the following null hypothesis is formulated:

Centrality of occupational choice is not affected by the kind of identification with parents.

Whether or not centrality of occupational choice is affected by the socioeconomic level of the home is not known. Previous research has indicated that individuals in the middle class of our society tend to be more motivated toward work than those in the upper or lower classes (Borow, 1966; Zytowski, 1965). Stefflre (1966) suggested there will be differences among social classes with more centrality being evidenced among the middle class persons than in the other classes. In order to determine whether or not a relationship does exist between centrality of occupational choice and socioeconomic level, the following hypothesis is formulated:

> Centrality of occupational choice is not affected by socioeconomic level.

Derivation of the hypotheses given above and hypotheses and subhypotheses in restated testable form are presented in Chapter III.

Delimitations of Study

This study is dealing with only three variables involved in centrality of occupational choice. The investigator makes no claim that these are the only determinants of centrality in occupational choice.

This study is limited by its sample. The participants are university students and occupational behavior is represented only in terms of stated choices. Conclusions drawn, therefore, may apply only to stated occupational choices at a particular choice point in the occupa-

tional development of university students.

More specific limitations are that students are from sociologically intact families (both mother and father living in the home) at the time they enter the university and that their first two years of college are spent living away from their parental home. The first of these allows a measure of parental identification with either or both parents; the second controls the consistency of the college environmental factor affecting students.

Definition of Terms

Occupation and vocation are defined, for the purpose of this study, as employed activity, a job that a person holds. Vocational and occupational theorists often differentiate between these terms.

> Occupation...meaning employed activity in which the tasks involved are similar from situation to situation.... Vocation ... connotes a sense of life purpose or mission, a raison d'etre (Wrenn, 1964, 27).

This author also points out that the terms are frequently used interchangeably. For the purpose of this study, such terms as occupational choice, occupational development, and occupational exploration will be used interchangeably with the terms vocational choice, vocational development, and vocational exploration.

<u>Centrality</u> of occupational or vocational choice is defined, for the purpose of this study, as similarity among self concept (SC) occupational persona (OP), and occupational role expectation (ORE) as measured

by similar scores on the Interpersonal Check List (ICL).

<u>Periphery</u> of occupational or vocational choice is defined, for the purpose of this study, as differences among SC, OP, and ORE as measured by differences of scores on the ICL.

Philosophical reasons for choice² is defined, for the purpose of this study, as reasons expressive of an individual's humaneness and/or particular "calling" to a vocational choice.

Psychological reasons for choice is defined, for the purpose of this study, as reasons arising from unique traits or needs of the individual.

<u>Sociological reasons for choice</u> is defined, for the purpose of this study, as reasons originating from the sociological context of the family or school, from family tradition, background, or occupational inheritance.

Economic reasons for choice is defined, for the purpose of this study, as those reasons expressive of the economics of the country-good times or depression.

<u>Accidental reasons for choice</u> is defined, for the purpose of this study, as reasons occurring out of a chance situation or timely oppor-tunity.

Identification is defined, for the purpose of this study, as similarity of scores of description of self and description of mother and

² The "five reasons for choice" were proposed by Stefflre (1966).

father. For example, if a child describes himself similarly to the way he describes his mother, but not similarly to the way he describes his father, as measured by the ICL, it is assumed that he identifies with his mother and does not identify with his father. Four kinds of identification are possible: like-sex, cross-sex, with both parents, or with neither parent.

Organization of the Study

The following chapter will include a review of the related literature. Chapter III will contain a derivation of the hypotheses, sub-hypotheses, a description of the sample, and a report of the methodology employed. The results and discussion of results will be reported in Chapter IV. Chapter V will contain a summary of the study with discussion, implications, and conclusions.

CHAPTER II

REVIEW OF RELATED LITERATURE

As was stated in Chapter I, centrality of occupational choice is referred to in research studies in terms of its assumed importance to job satisfaction and to implementation of the self concept. Investigation of psychological and sociological research does not disclose that this concept has been tested empirically. The variables of concern to this study have been considered in relation to the broader concept of occupational choice (Douvan & Adelson, 1966; Heilbrun, 1965) or to specific factors such as problems in vocational choice, vocational interests, and work-value orientation (Brunkan, 1965; Crites, 1962; Kinnane & Bannon, 1964). This chapter, therefore, reviews research which is relevant to the study of the variables of sex, identification with parents, and socioeconomic level as they relate to occupational choice.

This chapter is divided into four parts. The first section is a brief historical overview of the concept of centrality in occupations. This is followed by a section considering sex differences in relation to occupational choice. In the third section, identification and occupational choice is explored. The last section contains research on the influence of socioeconomic factors in occupational choice.

The Concept of Centrality in Occupational History

Centrality or ego-involvement in an occupation is not a new concept. Work as a measure of personal self-value was part of the religious fervor prevalent in the early days of this country's history. Wrenn (1964) suggested that settlers brought with them the ideas of Luther who considered that work was carrying out God's purpose on earth and of Calvin who preached that work had personal virtue because God required it of man. While work as a virtue was inherited from our European ancestors, "work to survive" was an outcome of the pioneer conditions of life (Wrenn, 1964, 27). These two concepts combined to produce hard-working persons who were motivated to work hard and to succeed at their jobs. Work for itself tended to be more important than what the work was. When this country later moved from a pioneer society to an industrial one in which men took mental rather than physical risks and machines did much of the hard work, the term "work" was replaced by the idea of "occupation" where it was important what kind of work a man did. At that time, according to Wrenn (1964), "occupation" began to have status connotation.

The present century, with its shift to industrialization and urbanization, has inadvertently deemphasized the status of work, according to Wrenn (1964). A job is no longer a private affair in which an individual gets personal satisfaction from seeing the result of his labor but is more often under the surveillance of others with a decreasing opportunity to see the finished product (Wrenn, 1964, 29-30). The social

context in which work is performed, wrote Borow (1967), is, for so many occupations, increasingly impersonal.

Other changes in occupational areas that seem to concern vocational theorists are the shorter work week and the lack of intrinsic rewards in work. Borow made several observations about such change.

> Realization that the work week of the average American worker very probably will continue to decline has led to serious conjectures by social analysts and educators that further shifts may occur in the psychological meaning and importance of occupational experience. (Borow, 1966, 380).

This author went on to suggest that American youth should be prepared for leisure hours so that such time will be personally rewarding and socially responsible, such as in volunteer "work" or meaningful hobbies, and not wasted and misused. Goodman (1960) has written that extrinsic more than intrinsic work values have become important to adolescents in that young people today consider pay, security, and working conditions before they think of the job's worthiness, honor, or usefulness to others. With a more optimistic outlook, Havighurst (1964) stated that, even though the meaning of work is changing rapidly, young people are needful of and concerned with finding their occupational identity.

The relationship of the concept of centrality to this country's history as well as what ego-involvement in an occupation may mean at the present have been briefly considered above. Borow (1966) stressed that it is important to understand not only the history of occupational change and the understanding of the adult worker but also to investigate the

developmental stages of young people. He emphasized the need for researchers to look at the processes by which a young person acquires his concept of work,

Sex Differences in Occupational Choice

As important as the developmental stages in occupational choice are to young people, vocational and occupational research on females has been deficient. Considering that the number of female workers is increasing at almost twice the rate of male workers and that nearly one in three workers in the American labor force is a woman, Borow (1966) stressed that there is too little research on women and their occupational choices. Although the evaluation of sex differences has, therefore, been limited, some differentiating factors of importance to this investigation have been studied.

The opinion of a number of writers has been that our culture tends to have different occupational expectations for males and females and that children learn these sex stereotypes. Singer and Stefflre (1954) compared the job values and desires of 343 male high school seniors and 416 female high school seniors and found that boys desire jobs offering power, profit, and independence while girls are inclined to select job values characterized by social service and interesting experiences. Kagan and Moss (1962) demonstrated that characteristics perceived as feminine (e.g. passivity and dependency) are highly stable from childhood to adulthood for females. Similarly, aggression as a

trait of boys is continuous. Such long lasting characteristics decidedly influence the occupational choice in males and females, they concluded. Concurring with such sex differences, Erikson (1964) suggested that not only is society influential in imprinting stereotypes but also men and women are psychologically drawn to master different areas of living. Men want to master external space, often nature at large, while women are more comfortable dealing with problems of life that unfold within well-defined space (Erikson, 1964, 315).

Certainty of choice appears to be another factor differentiating males and females. A large sample of 29,000 seventh graders was studied by Parker (1962) who found that half again as many boys as girls, a significant difference in his study, were definite about vocational plans. Borow (1966) suggested that the uncertain contingency of marriage may be an obstacle to early and definate vocational choices in women. In their extensive study of American adolescents, Douvan and Adelson (1966) pointed out that adolescent girls are clearly more vague regarding vocational plans. Their range of choices tended to cluster in the traditional feminine occupations of nurse, teacher, and secretary. Also, these researchers found that much of the identity formation of this age group is oriented toward the future. For the male, the nature of his occupation plays a crucial defining role. The female, depending on marriage for a sense of identity, tends to take her self-definition from the man she marries and the children she raises, Since marriage is often in the undefinable future, a certain amount of

ambivalence can be expected. At college age, added Douvan and Gold (1966), where the role of woman student is not clearly defined, the young woman is still ambivalent as she vacillates between being a coed girlfriend heading for marriage and a student. In contrast, a young man identifies both as self-as-worker and as self-as-mate and does not face the conflict that women do.

Differences in the realism of occupational choice tends to be sexually differentiating. At the grade school level, according to O'Hara (1962), girls were found to have a more intimate and concrete contact with the world in that they took care of younger children and often role-played nurse and teacher, highly realistic if limited choices for future careers. Boys tended to be more adventuresome in their choices and often less reality oriented. Later, however, the sexes appear to shift places. Ginzberg, Ginzberg, Axelrad, and Herma (1951) speculated that women's realistic choices in college are complicated by their aspirations for marriage. If women do not make a firm commitment to a career, this may be apparent by a fantasy-based choice which defensively keeps them from a real choice.

That college level students are closer to their vocational goals than younger groups is indicated by the research on progressive clarification of vocational goals. High school seniors were more capable than sophomores and juniors to make reality-based choices (Hall, 1963), and sixteen-year-old boys compared with fourteen-year-old boys in a national survey had more realistic ideas of the preparation necessary

in their chosen fields (Douvan & Adelson, 1966). It can be assumed, therefore, that the older a person is, the more likely that his occupational goal will be realistic and clarified.

As suggested above, research tends to indicate that women do not have as clearly defined a work orientation as men do, even when they have reached a college setting. Yet the number of women workers continues to increase and the average work tenure for women, according to Wolfbein (1964) is not short because so many women return to working careers when their children are in school. At present, the average age of the American woman worker is estimated at 38 years and a high school girl of today may typically be expected to spend 25 years of her remaining life in the labor force. Because of such statistics, this author stressed the importance of more research on the nature of women's occupational development.

Identification and Occupational Choice

For purposes of clarification, this section is separated into a subsection on self identity and occupational choice and a subsection on identification with parents and occupational choice.

Self Identity and Occupational Choice

In looking at identity formation in adolescents, the constructs of Er ikson (1956) seem relevant. He theorized that the adolescent needs to modify his behavioral roles as he moves from childhood toward adulthood. The term "ego identity" refers to successful modification

while "ego diffusion" indicates that there has been some failure in his modification, according to Erikson (1956). This author considered that identification takes place through different stages of a child's development with the child identifying with the part-aspects of people with whom he comes into contact. Identity diffusion--the lack of a clear sense of self and who one is--was seen by Erikson (1956) to be a characteristic phase in young people which ordinarily ends with adolescence. In our society one of the most clear-cut means by which identity is expressed is through the process of making a vocational choice. As considered in the previous section, males and females tend to express their identities differently in their occupational choices. For boys, choosing an occupation is a great determinant of identity while girls tend to keep their identity diffuse because their view of the future is blurred by concern about marriage (Douvan & Adelson, 1966).

Because an occupation in our culture often identifies a person more clearly than any other characteristic, young people are well aware that the question "Who is he?" often means "What does he do... what job has he?" Therefore, self identity as perceived through the self concept, as Super (1957) suggested, is central in occupational choice. He defined the self concept as the way in which an individual sees his aptitudes, interests, and personality. Stefflre (1966) went a step further in pointing out that not only does the person need to perceive himself accurately but there needs to be congruence among the self, the self concept, the "job personality", and the occupational role

expectation in order for there to be a "fitting" relationship which is the "idealized concept of the selection of an occupation as being the implementation of a self-concept." (Stefflre, 1966, 614). Before a person enters an occupation, however, he cannot know all about himself or about the occupation and, therefore, the ideal "fitting" relationship does not happen often. According to Stefflre (1966), the person will use what he knows of himself to make his choice and, depending upon how he perceives himself as well as his view of himself on the job and his expectations of his occupational role, he will, in varying degrees, implement his self concept.

Given a person with a particular psychological make-up, how is the self concept translated into occupational choice terms? Although their model has not been tested adequately, according to Holland (1964), this question has been theoretically answered by Super and colleagues (1963) who propose that the self concept consists of all the statements a person makes about himself.

> For example, if the person conceives of himself as social, verbal, aggressive, and bright and if he thinks of lawyers in the same terms, he may become a lawyer. In contrast, a person may conceive of scientists as unsocial, quiet, passive, and intelligent, but since only one of these occupational terms is consistent with his self-concept he will avoid scientific occupations. These simple examples can be elaborated so that complex self-concepts can be related to complex occupational concepts and to large numbers of occupations. Thus numerous occupations can be revealed as "compatible", to varying degrees, with a person's selfconcept. (Holland, 1964, 262-263).

That a person's occupational role can be one representing an avoidance reaction as well as, or instead of, an approach reaction, was considered by Stefflre (1966) who stated this was due to a person wanting a life different from his present one. Other vocational theorists made similar propositions. To Galinsky and Fast (1966), a work identity may be well-formed but blocked from expression by a fear of acting in accordance with it. Forer (1965) called avoidance a "defensive choice" by which important aspects of self, abilities, and needs will be rejected in favor of allaying anxiety or dealing only with the conflicts of a vocational choice. Suggesting that some individuals today are just not interested in an occupation, Zytowski (1965) stated that these persons avoid the idea of a permanent commitment to the ordinary vocational behavior of a career. This approach-avoidance reaction, then, suggests another dimension to theory of occupational choice by looking at opposite or denied choices.

The assumption can be made, after looking at the above references, that a young person's ego-identity or concept of self is involved in his occupational choice. Holland (1964) presented a theoretical model to support the idea that this ego-identity, through the concept of self, is a describable concept. Reference was made to researchers who considered that the self concept may affect avoidance as well as commitment to an occupation (Stefflre, 1966; Zytowski, 1965). The self concept appears to be a relevant concept to consider when studying choices of occupations.

Identification with Parents and Occupational Choice

Research on the effect of the familial psychological atmosphere on occupational choice by children at college age suggested a relationship between identification with parents and particular variables involved in occupational choice.

Stoke (1951) credited Freud with the introduction of "identification" into psychological writing:

...and here we have that higher nature, in this ego-ideal, or superego, the representative of our parents. When we were little children we knew these natures, we admired and feared them; and later we took them into ourselves (Freud, 1935, 47).

Identification has been effectively measured by means of assumed similarity between the subject's rating of self and parent as he perceives them. Some research looked at the degree of identification with same-sexed and with opposite-sexed parents. Studies of college students by Heilbrun (1965) and Bieri, Lobeck, and Galinsky (1959) confirmed that college males tend to see themselves more like their fathers than college females see themselves like their mothers. Heilbrun (1965) found there may be more of a tendency for females than for males to identify both with same-sexed and opposite-sexed parents. A possible explanation, he stated, is that it is more acceptable for females to try masculine roles than for males to try feminine roles. Also, he found that males tend to identify less with one or both parents than females do.

Crites (1962), studying parental identification and vocational interest development in college students, considered that identification encompassed both projection and introjection and should be assessed with a measure of similarity of perceptions. He used methods of "concept of self" and "concept of parent" and found, using 350 college undergraduates, that in general identification with both parents influenced the formation of vocational interest patterns but that identification with the father was significantly more important than with the mother. Looking at the relationship between parental identification and problems of vocational choice, Brunkan (1966) showed that degree of identification with the father differed signifcantly from that with the mother. His hypothesis that problems of indecision about vocational choice were accompanied by a high degree of father identification was not supported. Rather, he found that the mean of the undecided subjects indicated low rather than high identification with their fathers. Studying females and identification with parents, White (1959) found that career-oriented college women appear to be less satisfied with themselves and to identify less and communicate less with their parents than a comparable group of non-career-oriented women.

Studies cited point out the influence of identification with parents on young people's choices of occupation. It can be assumed that parents are major precipitants in their children's ultimate occupational choices. Burchinal (1962) listed several studies in which male and female subjects named parents most frequently as the persons who had

the greatest influence on their occupational plans. Some research has found that this influence on occupational choice is due to identification with either or both parents. Additional study of this relationship seems appropriate.

Socioeconomic Levels and Occupational Choice

Psychologists and sociologists studying occupational behavior consistently observe the individual in his social milieu. Among the factors considered to be of importance to occupational development is the social class origin of the individual. Research in this area was compiled by Borow who drew several conclusions.

> No simple, linear correspondence exists between the social class origins of subjects and their educational-occupational aspiration levels. It appears that relationships between these variables are influenced by factors of age, previous achievement, personal values, and by the reference groups with which subjects are identified (Borow, 1966, 385).

However, some research studies reported by Borow and others have made some claims and inferences relative to this study. With young men's occupational choices, Youmans (1956) found that social stratification is more important in the formation of high school senior boys' choices than school, type of community, work experience, or particular factors in the home other than the social level. Studying lowerclass homes and middle-class homes, Elder (1963) suggested that the family functions in the development of youth's occupational motives by providing not only learning opportunities but also opportunities to meet
people who value achievement. Vocational aspiration, educational plans, and the actual choice of an occupation are, in general, related to the influence of the family, according to Borow (1966). It can be assumed that what parents feel in the way of ego-involvement in their jobs also may affect their children. Kinnane and Bannon (1964) studied intrinsic and extrinsic work-values of college women as they were affected by parental influence and the socioeconomic level of the home. Although their not ion that women of lower socioeconomic status seek extrinsic values in work while those of upper socioeconomic status seek intrinsic values was not supported, they found a significant relationship between perceived parental influence and socioeconomic status

Zytowski (1965) commented about the three socioeconomic classes and avoidance behavior in vocational motivation.

> At the very lowest social-class status, work seems only to satisfy certain biological needs, and psychological satisfaction is gained from other, non-work involvements. The highest social class level may produce individuals whose "vocations" do not include that essence of toil or asceticism which the middle class believes necessary to their work, and for which satisfaction of such inner states as values, needs or personality characteristics seems to compensate (Zytowski, 1965, 750).

This author also noted that women tend not to have career motives at the head of their motivational hierarchy and, if they do, they are considered unusual because they do not place their occupations second to those of mother and housewife. Again, as considered in previous sections of this chapter, the stereotype of what a woman's aspiration should be is considered by researchers to be an important factor to her in deciding on her occupation.

In summary, there was some research cited above to indicate that socioeconomic factors are worthy of consideration when investigating the occupational choices of young people. The relationship of particular variables to vocational choice have been studied but no specific conclusions can be drawn. Rather, it seems pertinent to look further into this area.

In this chapter the research considered to be relevant to an investigation of centrality in occupational choice has been reviewed. In the next chapter this literature will be synthesized in order to show how the hypotheses were derived. The methodology used in testing the hypothesis will also be considered.

CHAPTER III

HYPOTHESES DERIVATION, SUB-HYPOTHESES,

METHODOLOGY, AND ANALYSIS

In the first section of this chapter, a synthesis of the research discussed in Chapter II is presented along with the derivation of the research hypotheses given in Chapter I. The second section describes the methodology used in testing the hypotheses. An explanation of the method of analysis of data is included in the last section.

Derivation of the Research Hypotheses

The hypotheses tested in this study were based more upon their assumed relationship to vocational theory than upon research evidence on the concept of centrality. The research cited in Chapter II pointed out the relationship of the broader concept of occupational choice to the variables considered in this investigation. Evidence cited indicated sex, parental identification, and socioeconomic factors tend to influence vocational choice in young people. It can be assumed that some relationship exists between centrality of occupational choice, which has not been tested empirically, and the variables under investigation. In order to make this assumption, it is also necessary to assume that the theoretical concept of centrality is measurable.

Studies cited in Chapter II stated that women may still be clinging

to a feminine stereotype in spite of the increased number of women in the labor market and the present emphasis on more education for women. The result of such stereotyping means that women tend to have an ego-diffusion and an unrealistic self concept when occupational choice is concerned. That females are more psychologically peripheral in their occupational choices than males is Stefflre's (1966) proposal. Although he conceptualizes centrality and periphery in terms of actual occupational choice, an investigation of stated occupational choice also seems relevant to the concept. Are college women, at a time of forced choice of occupation--the end of their sophomore year at a university that forces a final academic major choice at that time--peripheral in occupational choice when compared to males? To attempt to answer this question, the following hypothesis and operational sub-hypotheses were formulated:

- H₁: Occupational choice is more central for males than for females.
- H₁: Occupational choice is significantly more central for males than for females as measured by similarity of scores on the Interpersonal Check List (ICL).

Societally limiting forces affecting the choice of an occupational persona were proposed by Stefflre (1966). Centrality was related to these forces in a descending fashion from the essential to the accidental--from philosophical to psychological to sociological to economic to accidental. Stefflre's (1966) proposition that males have more essential forces affecting their job choices while females have more accidental

forces was the basis for the second sub-hypothesis.

H₁: Occupational choice is significantly more central for males than for females as measured by the greater number of philosophical and psychological reasons for occupational choice expressed by males than by females and by the lesser number of economic and accidental reasons for occupational choice expressed by males than by females on the occupational choice questionnaire.

Considerable research is available on the effect that different kinds of parental identification have on college students (Bieri <u>et al.</u>, 1959; Heilbrun, 1965), including the effect on vocational interest patterns (Crites, 1962) and problems of vocational choice (Brunkan, 1966). No empirical studies have considered the variable of identification with parents and its relationship to centrality of occupational choice in young people. The following null hypothesis is formulated to determine whether or not there are significant differences among those students identifying differently with their parents.

H₂: Centrality of occupational choice is not affected by the kind of identification with parents.

Inasmuch as research has found that vocational life histories of women are characteristically different from men, the treatment of males and females is separately hypothesized and tested.

- H2a
 There is no significant relationship between centrality of occupational choice for males and kind of identification with parents as measured by similarity of scores on the ICL.
- H_{2b}: There is no significant relationship between centrality of occupational choice for females and kind of identification with parents as measured by similarity of scores on the ICL.

Socioeconomic level has had an assumed importance in the egoinvolvement of occupational choice. Attending to the class system, evidence presented in Chapter II indicated that the middle class, more than the upper or lower classes, is considered to be more motivated toward work and the values affiliated with work. This appears to relate indirectly to Stefflre's (1966) proposition that the middle class, more than lower or upper classes, will show more centrality of occupational choice. Again, males and females are treated separately. The hypothesis and sub-hypotheses of no differences are suggested inasmuch as there is no previous research on these two variables.

- H₃: Centrality of occupational choice is not affected by the socioeconomic level of the home.
- H₃: There is no significant difference in the centrality of occupational choice as measured by similarity of scores on the ICL for males from different socioeconomic levels as measured by father's occupation.
- H₃: There is no significant difference in the centrality of occupational choice as measured by similarity of scores on the ICL for females from different socioeconomic levels as measured by father's occupation.

Methodology

This section includes a description of the subjects used in the study, an explanation of the procedure used in gathering the data, and information about the instrument chosen for testing the hypotheses.

Subjects

Subjects were 84 males and 102 females in the third term of their

sophomore year at Michigan State University in East Lansing, Michigan. The sample is representative of undergraduate students at this university. The subjects were administered the ICL in October, 1965, the first month of their freshman year at the university. The original sample of freshmen who were selected as representative freshmen of Michigan State University included 170 males and 250 females. Of this early sample, drop-outs and transfers to other universities eliminated some subjects between 1965 and 1967. Additional limitations were that students must be from sociologically intact homes (both mother and father living in the home) at the time they entered the university and that their first two years of college must be spent living away from their parental home. In all, these limitations dropped out 53 males and 110 females from the original sample. An additional 33 males and 38 females were eliminated when their tests and questionnaires were not completed correctly or were not returned to the researcher.

Procedure

The research instrument, the ICL (Appendix A) was administered to the subjects during their freshman fall term at Michigan State University in October, 1965.³ The check list asked for ratings of impressions of "self", "mother", and "father".⁴ At this time, the first month

³This testing was part of a general education development testing program under the direction of the university's evaluation services' research program.

⁴Ratings were also obtained for "impressions about myself I wish to convey to others" and "fears about how I impress others", ratings not used in this investigation. (See Appendix A)

of their first term at the university, perception of mother and father was as close in time as possible to when the student lived at home. It was assumed, in using this data, that integrated parental perception would be clearer at this time than after the student had been separated by time and/or space from the parents.

Near the end of spring term, 1967, a time when the third term sophomores would have to declare a last academic major change, the investigator attempted to telephone the early sample subjects remaining at MSU, before their departure for the summer months, to explain the research and to ask their cooperation. Of the total remaining sample of 127 males and 140 females, 100 males and 132 females were contact ed by telephone. Since all subjects had not been reached, separate cover letters for those contacted (Appendix B) and for those not contacted (Appendix C) were included in the research packet. The packet, mailed out to the subjects, included, besides the cover letter. an explanation of the test and questionnaire (Appendix D), the ICL⁵ and its directions (Appendix E), and a questionnaire (Appendix F). Subjects were instructed to answer a separate answer sheet for the three ICL ratings of "self", "impressions about myself on the job I wish to convey to others", and "impressions about the kinds of people on the job that I have chosen". These three ratings are representative of self concept (SC), occupational persona (OP) as postulated by Stefflre (1966), and occupational role expectation (ORE). The instructions urged the

⁵This ICL has deleted non-scoreable filler items included in the first test administration.

subjects to answer the check list in the order specified in their directions. The answer sheets were randomly ordered so that they were completed in six different combinations of order: (1) SC-OP-ORE⁶, (2) SC-ORE-OP, (3) OP-SC-ORE, (4) OP-ORE-SC, (5) ORE-SC-OP, and (6) ORE-OP-SC.

Subjects were also instructed to fill out a questionnaire asking for information on college major, occupation and specialization plans, certainty of the occupation and specialization plans, preferred "wish" choice of occupation, desire for similarity of home to parent's home, counseling at MSU counseling center (if any), parents' education and occupation, and a rank-order of preferred reasons for occupational choice. After completing the materials, subjects were asked to seal them in an envelope provided in the packet and to mail them to the investigator.

After the above materials had been returned, it was necessary to determine for each subject: (1) an identification score with each parent, (2) a centrality score on the basis of the three scores for self concept, occupational persona, and occupational role expectation, (3) a score for the five different reasons for occupational choice, and (4) a rank for father's occupation.

An identification score was acquired by deviating each subject's response to his self concept on the summary scores of Love and Dominance from his responses for his mother and his father. D-scores were then computed and listed from the smallest to the largest score

⁶This specific combination in included in Appendix E.

for each of the two groups, males and females. A median dichotomized the list; the subjects above the median were considered as identifying with the parent, those below the median were considered as not identifying with the parent. Four groups were thus established to indicate different kinds of identification with (1) like=sex parent, (2) cross-sex parent, (3) both parents, and (4) neither parent.

In the second case, an average of the three concept scores--SC, OP, and ORE--for both the Dominance and Love dimension, was calculated for each person. A D-score was computed by deviating each concept score from this average. The D^2s were summed and a square root of the sum of the D^2s for each of the dimensions, Dominance and Love, were totaled to give one score designated as the centrality score. These single scores were then ranked, the smallest rank representing the greatest amount of centrality and the highest rank representing the least amount of centrality.

It was also necessary to score the reasons for occupational choice, ranked by the subjects from 1 to 5 in each of four questions on the occupational choice questionnaire. In the ranking, 1 represented a first choice, 2 a second choice, to 5 as a last choice. Procedure was to add up the ranks for each of the five reasons which gave sums of ranks for each subject on each reason.

In addition, the questionnaire provided information about socioeconomic level as indicated by the father's occupation which was ranked according to the National Opinion Research Center's listing of the "Prestige Rankings of 90 Occupations" (NORC, 1947). A recent replication

of this survey by Hodge, Siegel, and Rossi (1964) was used to assign ranks to the occupations of the subjects' fathers. These ranks are listed from the lowest rank representing the occupation with the highest prestige to the highest rank representative of the lowest-prestige occupation.

Instrument

This section contains a description of the instrument used in this study, the Interpersonal Check List (ICL). Rationale for its use as well as validity and reliability information for the instrument will be stated. Description of ICL

The ICL was developed by LaForge and Suczek (1955) to measure self-perception and perception of others. It was developed in conjunction with the Interpersonal System of Personality (ISP) of Leary's (1957). The authors suggest the ICL's usefulness as a separate research instrument because it is highly comprehensive and deals with all the interpersonal aspects of personality.

The ICL is comprised of 128 items consisting of adjectives or adjective phrases describing different aspects of interpersonal behavior and considered either true or false by the respondent. The items are given an alphabetical code designation and are listed in a circular continuum (Appendix G). There are eight items in each of the 16 variables of the circle. The responses to these items are scored on a 4point scale, increasing in intensity in four steps as they move toward the perimeter of the circle. The range of these items is from 1, reflecting "a mild or necessary amount of the trait", to 2, "a moderate

and/or appropriate amount of the trait", to 3, "a marked or inappropriate amount of the trait", to 4, "an extreme amount of the trait". Summary raw scores for the two dimensions, Dominance-Submission (DOM) and Love-Hate (LOV) are extracted by a weighted sum of each set of responses to the 128 items.

Rationale for Use of the ICL

This instrument was chosen after reviewing the literature to find an appropriate instrument to evaluate other persons as well as self. As Buros' Sixth Measurement Yearbook pointed out, this attribute in the ICL is achieved.

> The ability to assess the examinee's evaluation of persons other than himself on the same dimensions used for describing the self, thus allowing the ICL to be used sociometrically, is a great achievement in view of evidence indicating the lack of agreement between a variety of tests and scales presumably measuring the same constructs (Bentler, 1965, 127).

In the research literature, work was often epitomized in such expressions as "way of life". Social communion or interaction with others, on the job as well as away from the job, appeared to be workrelated to a considerable degree. The ICL as an "interpersonal" instrument was considered to be applicable for rating of "self", "impressions about myself on the job I wish to convey to others", and "impressions about the kinds of people on the job that I have chosen".

In addition, since subjects were asked to rate themselves and others on the check list, the instrument needed to be as free as possible from response set, such as the effects of "social desirablity". Allowances for such effects have been both explicitly and implicitly designed into the ICL.

Explicitly, social desirability is represented in the scoring of the ICL by the intensity of the items. LaForge and Suczek (1955) pointed out the close equivalence between intensity and social desirability. Empirical evidence for a sample of 94 university students averaged a correlation of -.73. It was found that the correlation was higher for the items of the ICL lying close to the Love-Hate axis and revisions of the check list have attempted to balance this axis. The authors stated that these revisions have not resulted in different desirabilities for men and women. Scale values of social desirability assigned the ICL on the basis of college students' responses did not noticeably differ according to the sex of the raters.

Implicitly, LaForge (1963) pointed out, social desirability has been balanced for the 16 interpersonal categories and literally "built into" the ICL.

> ...items were so chosen that every "intensity" classification is equally represented in every "interpersonal" classification (i.e., every interpersonal category contains eight words or phrases distributed 1:3: 3:1 over the four levels of judged intensity); in this sense the two classifications are orthogonal...

> As a result of the balance given the 16 interpersonal categories with respect to judged intensity and endorsement frequencies, the tendancy to acquiesce and the tendency to respond in an extreme or a deviant way affect scores on the 16 interpersonal categories with nearly equal

force. Moreover, sets to respond in a socially desirable way affect scores on each of the 16 interpersonal categories with roughly equal force (LaForge, 1963, 14-15).

Another factor that entered into the choice of this instrument by the investigator was the facility with which the ICL can be used to measure identification, Research evidence indicated that an adjective check list can qualify similarly to the semantic differential which has been used a great deal for measuring identification. Block (1958) used both the semantic differential and an adjective check list of 79 adjectives which he developed for his study, as measures of identification between the concepts "your ideal self" and "your father" and "your mother", employing a group of University of California students as subjects. When corrected for attenuation, he obtained a correlation of .94 between the two methods. His conclusion was:

> ... while the semantic differential is assumed to reveal relationships among concepts of which the subject may be unaware, hence revealing unconscious or preconscious material, the adjective check list served just as well as a measure of identification as did the semantic differential (Block, 1958, 84).

This researcher also obtained a slightly higher split-half reliability for the check list than for the semantic differential. On the basis of this and further research (Champ & Block, 1960), the adjective check list appeared to be an appropriate instrument to use for screening subjects into groups of successful and unsuccessful identifiers, those with low difference scores versus those with high difference scores.

Reliability of the ICL

Leary (1957) reported a test-retest reliability correlation on a clinical sample, with an N of 77 retested after two weeks, which ranges from .64 to .83 on the sixteenths (8 items in each sixteenth) of the circular grid. The average reliability for octants with this sample was .78. Non-clinical samples in five different groups, including three groups of college students, with a total N of 479, showed internal consistency ranging from .51 to .86 by the communality of each of the raw score measures on the sixteenths of the circular grid. These communalities, according to LaForge (1963) are particularly encouraging because the sixteenths are personality scales of only eight items. The summary scores (DOM and LOV) have communalities above .90. Since the summary scores are based on more items, they are, in a testretest sense, more reliable than the sixteenth scores.

Armstrong (1958) checked reliability of the ICL in terms of internal consistency of the test. His sample was 50 "normal" males and 50 "alcoholic" males rating self, mother, father, wife, ideal wife, and ideal self. The Kuder-Richardson Formula was applied to these twelve ratings. Each of the r_{tt} 's were significant beyond the .01 level. These correlations ranged from .953 to .976. His conclusions were that regardless of population or who is rated (e.g. self, father, mother), the ICL yields a significant internal consistency.

Validity of the ICL

Bieri and Lobeck(1961) studied relationships between parental identification, religious affiliation, and social class and the two factors of self concept, Dominance and Love. Significance was found for the hypothesis that the Dominance Score on the ICL would be more positively weighted on managerial-autocratic and competitive octants of the ICL and the Love score would be more positively weighted on the cooperative-overconventional and docile-dependent octants.

Gynther, Miller and Davis (1962) designed a study to investigate the relationship between scores on the Edwards Personal Preference Survey (EPPS) and the ICL, measuring needs and behaviors respectively, with 95 undergraduate student subjects. They found that significant systematic relationships between the two instruments are direct and, to a certain extent, predictable. For example, the ICL Love variable is positively associated with the EPPS needs Affiliation and Nurturance and negatively associated with needs Autonomy and Aggression.

Method of Analysis

The statistics used were the Mann-Whitney U Test, the Kruskal-Wallis One-Way Analysis of Variance, the Spearman Rank Correlation Coefficient, and the Student t Test. It was decided to reject the hypotheses only when the critical value established at the .05 level of confidence was not exceeded. Both the one-tailed test and the two-

tailed test were used, depending on the hypothesis tested.

In summary, this chapter has included the hypothesis derivation, sub-hypotheses, methodology, and the method of analyzing the data. In the next two chapters, results will be described, discussed, and evaluated.

CHAPTER IV

RESULTS AND DISCUSSION OF RESULTS

This chapter, which includes an analysis of the data, a report of results, and a discussion of results is divided into sections according to the hypothesis being tested. Each hypothesis will be stated, a report of the findings will be given, and results will be discussed.

Hypothesis One

<u>Test of Hypothesis One:</u> Occupational choice is more central for males than for females

 H1: a) Occupational choice is significantly more central for males than for females as measured by similarity of scores on the Interpersonal Check List (ICL).

A Mann-Whitney U Test was used to determine whether or not there were differences between centrality ranks for males and females. It can be recalled from Chapter III that centrality ranks are assigned according to discrepancy scores between each of the three concepts--Self Concept (SC), Occupational Persona (OP), and Occupational Role Expectaion (ORE)--and the average of these three scores. A low discrepancy score and its corresponding low centrality rank indicate high centrality while a high discrepancy score and matching high centrality rank indicate low centrality. The ratings assigned to each of the 186 subjects were totaled for the group of males (N=84) and for the group of females (N=102). The totals of the ranks appear in Table 1.

TABLE 1

Mann-Whitney U Test for Centrality of Stated Occupational Choice of Male and Female Undergraduate Students

	Centrality of Choice	
	Group Rank	Z
Males (N=84)	7278	1. 58
Females (N=102)	10113	

* The one-tailed p of $z \ge 1.58$ is p=.0571

As can be seen from Table 1, a z value of 1.58 has a one-tailed $p = .0571^{7}$ which was not of sufficient magnitude to accept the hypothesis although the differences were in the predicted direction. Hypothesis Onea, therefore, was rejected at the .05 level of confidence.

H l: b) Occupational choice is significantly more central for
 males than for females as measured by the greater number of philosophical and psychological reasons for
 occupational choice expressed by males than by females

⁷With $\ll = .05$ and p= .0571, the z approaches significance. The p= .0571 is considered p= .06 by the investigator.

and by the lesser number of economic and accidental reasons for occupational choice expressed by males than by females on the occupational choice questionnaire.

In testing this hypothesis, a Student t Test was used to determine differences between males and females on their responses to reasons for their occupational choices. The hypothesis that reasons differ in the direction of more philosophical and psychological and fewer economic and accidental reasons being expressed by males was tested.

The data in Table 2 indicate that significant differences at the .05 level occur between men and women on two measures, sociological reasons for choice and economic reasons for choice. With a male sample of 84 and a female sample of 102, the t= 3.00 is significant beyond the .05 level for sociological reasons for choice. The t= 1.79 is significant beyond the .05 level for economic reasons for choice. In both of these comparisons, women state sociological and economic reasons for choice significantly more than men do. The significance for economic reasons is in agreement with the part of the hypothesis that states men will have fewer economic reasons than women. The hypothesis also states that men will have more philosophical and psychological reasons and fewer accidental reasons than women, differences which are not significant at the .05 level. Hypothesis One-b, therefore, was rejected.

A further examination of the data in Table 2 reveals that the means can be ranked in the same order for males and females. The smallest mean represents the first choice of reason for occupational choice and

TABLE 2

	Males (N=84)		Females (N=102)		
Reasons for Occu- pational Choice	x	SD	x	SD	t
Philosophical	10.53	3.38	10.52	3.53	. 028
Psychological	7.58	1.81	7.87	2.06	1.42
Sociological	16.52	2.31	17.21	2.30	3.00*
Economic	20.21	4.08	20.61	2.71	1.79*
Accidental	18.71	2.52	18.78	2.73	.026

A Comparison of Stated Reasons for Occupational Choice for Male and Female Undergraduate Students

* For 185 df, p < .05 when $t \ge 1.65$ for a one-tailed test.

the largest mean the fifth or last choice. Both males and females rank (1) psychological, (2) philosophical, (3) sociological, (4) accidental, and (5) economic reasons as their order of choice. The ranking of means does not lend support to the hypothesis that men have more choices in the philosophical or psychological areas than women do.

Discussion of Results of Hypothesis One

The theoretical basis for the prediction of Hypothesis One, that men show more centrality of occupational choice than women, was Stefflre's (1966) proposition. He stated that in general the job is more important and psychologically central to men than to women in our culture. Empirical research indicated that males are less conflicted regarding their self role and occupation role than females (Douvan and Adelson, 1966). In contrast, females tend to be diffuse about occupational identity (Erikson, 1956) and conflicted between occupational choice and marriage (Douvan & Adelson, 1966).

Under the first sub-hypothesis, testing attempted to determine whether scores for Self Concept (SC), Occupational Persona (OP) and Occupational Role Expectation (ORE) differentiated males and females on centrality of occupational choice. It was assumed that the more centrality, with its corresponding congruence of SC, OP, and ORE, the closer the subject is to the "fitting" relationship proposed by Stefflre (1966) which he perceived as congruence between self, SC and OP, the latter having been selected on the basis of an accurate ORE. It was also assumed that males' lack of conflict over self-as-worker and selfas-mate would lead to their expressing more centrality or congruence of SC, OP, and ORE.

Results approached significance on this sub-hypothesis. However, at the critical level established, males were not more central in occupation choice than females (Table 1). Since review of the literature tends to indicate other kinds of occupational differences between males and females, some speculation on these results seems appropriate. One explanation, relative to the theoretical basis for the hypothesis, is that Stefflre (1966) is proposing differences in actual job choices rather than stated job choices. Another possibility is that females are at the midpoint in their college years and will have made their final choice of

academic major. A feeling of involvement in that major may be indicated at this stage in college and translated into a centrality score of occupational choice.

A second sub-hypothesis of Hypothesis One tested whether males indicate centrality of occupational choice by expressing more philosophical and psychological reasons and fewer economic and accidental reasons for choice than females. The basis for this hypothesis was Stefflre's (1966) proposal that males and females would tend to make particular choices when they look for a job, choices as stated in Hypothesis One-b.

Although the significance of economic reasons was in the predicted direction, being expressed more by females than males, other reasons did not differentiate males and females as predicted. and the hypothesis was rejected. A comparison of the means (Table 2) showed the same order of ranking for men and women, confirming no differentiation between the sexes. These results suggest that the university environment may be particularly conducive to the development of philosophical and psychological reasons for choice for either sex. It can be recalled that subjects are living away from home in a university atmosphere during their first two years at college.

The lowest rank for both males and females on stated reasons for occupational choice is economic reasons. Inasmuch as this age group has not experienced, during their lifetime, "bad times" in the economic life of the nation, this rank may be a realistic one for

the sample. Again, it is necessary to point out that actual contact with job choice could mean different responses than those to a questionnaire regarding future jobs.

Although incidental to the hypothesis tested, two questions from the occupational choice questionnaire add to our speculation on results of Hypothesis One. Research has suggested males and females differ during childhood and adolescence in respect to certainty of occupational choice (Parker, 1962) and fantasy choices (Ginzberg, 1951). If women are indeed peripheral to the world of work, they could be expected to be less certain and more wish-oriented than men. On the questionnaire, subjects, after stating their occupational choices, were asked to respond to a question on their certainty of choice and to a question on what they would do if they had their wish to go into any occupation. To facilitate comparisons, results of these questions appear in tabular form in Table 3.

These data are not considered statistically but the percentages suggest that males and females differ minimally in the certainty of their choices. The extensive research study by Douvan and Adelson (1966) suggested that females are more vague than males regarding vocational plans. In this study the post-adolescent age of females as well as their mid-point in college may, as suggested earlier, affect the nature of their choice. With wish-fulfillment choices, a considerably greater percentage of women than men make "wish" choices. Although no assumptions can be drawn from this limited data, it appears to be

in agreement with Ginzberg (1951) who stated that women sometimes have fantasy-based choices when they do not commit themselves to an occupation. No attempt is made in this study to determine whether women with wish choices are committed to an occupation or not. Therefore, it is not known why women differ from men to such an extent on this question.

TABLE 3

Percentages of Responses to Questions on Certainty of Choice and Wish Choice on the Occupational Choice Questionnaire by Male and Female Undergraduate Students

Certainty of Choice	Males (N=84)	Females (N = 102)	
Very Certain	. 38	.41	
Fairly Certain	.49	. 50	
Uncertain	.09	.07	
Very Uncertain	.04	. 02	
Wish Fulfillment Choice			
Wish and Occupation Plan Identical (e.g. lawyer vs. lawyer)	.47	. 38	
Wish and Occupation Plan Similar (e.g. farmer vs. forester)	.20	. 16	
Wish and Occupation Plan Unrelated (e.g. history teacher vs. jet pilot)	. 28	. 42	
No Answer	.05	.04	

In summary, on the basis of the test for differences in Hypothesis One, males did not show more centrality in occupational choice than females when measured by an adjective check list although results approached significance. Also, males did not show more centrality in their reasons for occupational choice than females as measured by stat ed reasons on the occupational choice questionnaire. Non-statistical data from the occupational choice questionnaire showed minimal differences in certainty of choice between men and women but proportionately more wish choices for women than men.

Hypothesis Two

Test of Hypothesis Two:

Centrality of occupational choice is not affected by the kind of identification with parents

H 2: a) There is no significant relationship between centrality of occupational choice for males and kind of identification with parents as measured by similarity of scores on the ICL.

The Kruskal-Wallis One-Way Analysis of Variance was used to test for significance of differences in centrality of occupational choice among male subjects identifying in different ways with their parents. As elaborated in Chapter III, the subjects were assigned an identification score based on discrepancies between their description of self and their description of each parent. From these scores, four groups indicative of different ways of identifying with parents were established:

like-sex, cross-sex, identification with both parents, identification with neither parent. Table I lists these four groups and their centrality ranks (Appendix H).

In the computation of the Kruskal-Wallis test, the sum of the centrality ranks in each identification group were compared. The value of H is distributed approximately as chi square with df = k-1. As indicated in Table 4, a x^2 of 8.00 is significant at the .05 level of significance with 3 df. Null hypothesis Two-a was rejected.

TABLE 4

Kruskal-Wallis One-Way Analysis of Variance for Differences in Centrality of Occupational Choice among Male Undergraduate Students with Different Kinds of Identification with Parents

	Centrality of Choice	
	Group Rank	x ²
Like-Sex Identification (N=15)	576.5	8.00*
Cross-Sex Identification (N=15)	650.5	
Identification with Both Parents (N= 27)	924.0	
Identfication with Neither Parent (N=27)	1419.0	

*For 3 df, p < 05 that $x^2 \ge 7.82$ for a two-tailed test.

H2: b) There is no significant relationship between centrality
 of occupational choice for females and kind of identifica tion with parents as measured by similarity of scores
 on the ICL.

The Kruskal-Wallis One-Way Analysis of Variance was used to test for significance of differences in centrality of occupational choice among female subjects identifying in different ways with their parents. Proceeding as with the male sample, four groups indicative of different ways of identifying with parents were established: like-sex, cross-sex, with both parents, and with neither parent. Table II (Appendix H) lists these four groups and their centrality ranks.

The value of H, distributed approximately as chi square with df= k-1, was computed from the sums of the ranks. Results are presented in Table 5. For 3 df, $x^2 \ge 7.82$ is significant for a two-tailed test at the .05 level. The x^2 =4.00 computed is not significant and Null Hypothesis Two-b cannot be rejected.

Discussion of Results of Hypothesis Two

Separate but identical hypotheses for males and females were tested to establish whether there was a relationship between indentification with parents and centrality of occupational choice.

It can be recalled that subjects were tested for identification with mother and father during their first month at Michigan State University when, in time and space, they were closest to home and parents. The basis for the hypothesis about the relationship between this identification

TABLE 5

Kruskal-Wallis One-Way Analysis of Variance for Differences in Centrality of Occupational Choice among Female Undergraduate Students with Different Kinds of Identification with Parents

	Centrality of Choice Group Rank	x ²
Like - Sex Identification (N=20)	1038.5	4.00
Cross-Sex Identification (N=20)	1038.0	
Identification with Both Parents $(N=31)$	1336.5	
Identification with Neither Paren (N= 31)	at 1840.0	

* For 3 df, p < .05 that $x^2 > 7.82$ for a two-tailed test.

and centrality of occupational choice was a theoretical notion of the investigator. Research indicated the importance of parents in influencing vocational choice for males (Crites, 1962) and for females (White, 1959) and it seemed worthwhile to test whether or not a relationship existed between identification with parents and centrality of occupational choice.

The test for the hypothesis for males was significant and, for females, not significant. These results suggest the identification a young man has with his parents does affect the centrality of his occupational choice but does not affect centrality for females. The different kinds of identification as means are shown in Table 6. Although incidental

TABLE 6

Means of Group Ranks for Male and Female Undergraduate Students with Different Kinds of Identification with Parents

	Males Centrality of Choice		Females Centrality of Choice	
Kind of Identification	Group Rank	Group X	Group Rank	Group X
Like-Sex Identification (Males: N=15) (Females: N=20)	576.5	38.5	1038.5	51.9
Cross-Sex Identification (Males: N= 15) (Females: N=20)	650.5	43.3	1038.0	51.9
Identification with Both Parents (Males : N= 27) (Females: N=31)	924,0	23.2	1336.5	43.1
Identification with Neither Parent (Males: N=27) (Females: N=31)	1419.0	52.5	1840.0	59.3

Table 6 indicates which kind of identification is most meaningful to the subjects. For both males and females, the means show that the most centrality occurs with identification with both parents. For males, there is more centrality with like-sex than with cross-sex identification. For females, no differences in centrality occur with like- and cross-sex identification. The least centrality for both males and females is shown with identification with neither parent. The significant findings confirm research reviewed previously. Bieri et al. (1959) stated that college males tend to see themselves more like their fathers than college females see themselves like their mothers. Crites (1962) found that identification with both parents influences vocational choice but that identification with fathers is more important than identification with mothers, for college male undergraduates.

In summary, the null hypothesis that there was no significant relationship between centrality of occupational choice and kind of identification with parents was rejected for males. On the basis of the data, the null hypothesis that there was no significant difference between centrality of occupational choice and kind of identification with parents was not rejected for females. A comparison of the centrality group means indicated that both males and females of this college sample identify more with both parents than with one or neither parent. Males identify more with fathers than mothers but no difference is indicated for females who identify to equal degrees with each parent. These results support other identification research. Added to earlier research is the concept of centrality of occupational choice as a differentiating factor among males identifying in different ways with their parents.

Hypothesis Three

Test of Hypothesis Three: Centrality of occupational choice is not affected by the socioeconomic level of the home

H₃: a) There is no significant difference in the centrality of occupational choice as measured by similarity of

scores on the ICL for males from different socio-

economic levels as measured by father's occupation.

To test this hypothesis, the Spearman Rank Correlation Coefficient was computed between centrality of occupational choice for males and socioeconomic level indicated by father's occupation. It can be recalled from Chapter III that father's occupation was ranked according to a recent replication (Hodge <u>et al.</u>, 1964) of the National Opinion Research Center's listing of the "Prestige Rankings of 90 Occupations" (NORC, 1947). Inasmuch as there were numerous duplicates or ties of fathers' occupations, a large proportion of tied ranks occurred. Corrected for ties, the rs= .219. For a sample as large as 84, the significance of an obtained rs under the null hypothesis is determined by computing the t associated with that value. A t of 2.03 was computed which is significant at the .05 level for a twotailed test where the critical value is t= 1.99. The relationship was of sufficient magnitude that the null hypothesis was rejected.

H₃: b) There is no significant difference in the centrality of occupational choice as measured by similarity of scores on the ICL for females from different socio-economic levels as measured by father's occupation.

The Spearman Rank Correlation Coefficient was used to test the relationship between centrality of occupational choice for females and socioeconomic level indicated by father's occupation. The same pro-

cedure was used for ranking father's occupation and correcting for ties as was used for males. The correlation was computed: rs=.099. For a sample as large as 102, a t of 1.98 is required for significance at the .05 level of significance for a two-tailed test. A t of .99 was computed from the rs which is not of sufficient magnitude to reject the hypothesis. Null Hypothesis Three-b, therefore, cannot be rejected.

Discussion of Results of Hypothesis Three

Theoretically the hypothesis was based on Stefflre's (1966) proposal that there will be a difference in centrality of occupational choice for different social classes. He stated that in general the job is of more central importance to the middle class than to the lower or upper class (Stefflre, 1966, 612). Previous empirical research has found that socioeconomic level affects vocational aspiration, educational decisions, and formulation of occupational choices (Borow, 1966; Youmans, 1956). Research is not clear-cut; numerous factors, some related to socioeconomic level and some not, appear to influence occupational choice in young people (Borow, 1966).

Father's occupation, which is often employed as a unidimensional index of classification, is used in the study as a measure of socioeconomic level. According to the NORC survey replication (Hodge <u>et al.</u>, 1964), the occupation with the greatest prestige has the lowest rank and the occupation with the lowest prestige has the highest rank. It can be recalled that centrality of occupational choice is also ranked from a low rank with most centrality to a high rank with least centrality. The null

hypothesis was formulated to determine whether or not a correlation exists between these variables. This hypothesis was separate but identical for males and females. A positive correlation was found between centrality of occupational choice and socioeconomic level indicated by father's occupation for males. Thus, the highest centrality rank correlated with the lower socioeconomic level (the father's occupational level with the lowest prestige). Attention should be paid to the fact that class levels are not specified. No assumption can be made from the data that the lower socioeconomic level is necessarily lower class since the middle class is highly represented in the sample. However, it is of interest to note the direction of this correlation and what it says of differences in centrality between the two ends of the socioeconomic level which range from physician to janitor. A possible interpretation of these findings is that upward social mobility is functioning in the lower socioeconomic level males to the extent that they are more ego-involved in their occupational choices than other males in the sample.

For females, no correlation is found between centrality of occupational choice and socioeconomic level.

In conclusion, two of the six operational hypotheses used to test the three basic hypotheses of this study were supported. A relationship was found between centrality of stated occupational choice and identification with parents for males. Also, there was a positive correlation between socioeconomic level and males' centrality of occupational choice. No relationship was found between females' centrality of occupational

choice and either identification with parents or socioeconomic level. Although the results were in the predicted direction, significance was not found to establish that males' central ity of occupational choice is greater than females as measured by the adjective check list. Testing of the five reasons for occupational choice for males and females showed significant differences between males and females on two of the five reasons, one of which was in the direction predicted by the hypothesis. These data did not support the hypothesis regarding men's reasons for occupational choice.

This chapter has presented tests of each of the three hypotheses dealt with in this study as well as a discussion of those results. Chapter V will include a summary, conclusions, and research implications of the study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This chapter contains a summary of the study which has been presented in the first five chapters, along with conclusions and implications which are drawn from the investigation.

Summary

The primary purpose of this study was to investigate whether a relationship exists between centrality of occupational choice with male and female university undergraduate students and their sex, parental identification, and socioeconomic level. The basis for the hypotheses that were formulated was largely theoretical since the investigator could find no empirical research that dealt directly with the relationship between centrality of occupational choice and the variables of sex, parental identification, and socioeconomic level.

Psychological centrality or ego-involvement in one's occupation or occupational choice is of interest and concern to those who theorize about vocational development. Researchers theoretically relate egoinvolvement in work to job satisfaction (Havighurst, 1964) and to implementation of the self concept (Super, 1957). It is assumed that
centrality or ego-involvement, or the lack of it, is part of the occupational decision and that the more central an occupation is to an individual, the more closely it will satisfy his sense of self.

As important as this assumption of centrality is to the field of vocational theory, this investigator found little research that attempted to determine the variables involved in centrality of occupational choice. Stefflre (1966) proposed that centrality in an occupation will be related to congruence between a person's self, his self concept, his occupational persona or "job personality", and his occupational role expectation. He suggested that sex, socioeconomic factors, and certain societally limiting forces affect the choice of an occupational persona. From this framework, the first hypothesis was formulated: occupational choice is more central for males than for females.

Since there is considerable evidence that parents have an effect on their children's vocational choices, studying the relationship between identification with parents and centrality of occupational choice seemed pertinent to this investigation. Therefore the second hypothesis was stated: centrality of occupational choice is not affected by the kind of identification with parents.

Stefflre (1966) proposed that centrality of occupational choice tends to differ for persons from different socioeconomic levels. To test this theoretical notion of differences, the third hypothesis was proposed: centrality of occupational choice is not affected by socioeconomic levels.

Participating in this study were 84 male and 102 female undergraduate students tested at the beginning of their freshman year and at the end of their sophomore year at Michigan State University. As freshmen, subjects rated themselves and their parents on the Interpersonal Check List (ICL). Identification was measured by the discrepancy between self and each parent on the ICL. As sophomores, subjects rated themselves, their occupational persona, defined as "impressions of themselves on the job of their preferred occupational choice", and occupational role expectation, defined as "impressions about the kinds of people on the job they had chosen", on the ICL. Centrality was measured by the deviation between self, occupational persona, and occupational role expectation and the average of these three scores on the ICL. As sophomores, subjects also filled out an occupational choice questionnaire which included information on the father's occupation. Socioeconomic level was measured by ratings of father's occupation on the basis of the 1963 replication of the occupational prestige ratings of the National Opinion Research Center survey (1947).

Results did not support the hypotheses that (1) males have more centrality of occupational choice as measured by the ICL than females or that (2) males express more centrality in their reasons for occupational choice on an occupational choice questionnaire than females. The Mann-Whitney U Test was used to test the first part of the hypothesis. Results, although not significant, were in the predicted direction.

The Student t Test was used to compute differences between males and females on reasons for occupational choice and was significant in two tests out of five in that females indicated more sociological and economic reasons for choice than males. That females would have significantly more economic reasons than males was supported; that females would have significantly more accidental reasons and males more philosophical and psychological reasons was not supported. Hypothesis One was rejected.

The second hypothesis, in the form of H_o, was rejected for males and not rejected for females. Using the Kruskal-Wallis One-Way Analysis of Variance, the relationship between identification with parents and centrality of occupational choice was significant for males and not significant for females. The acceptance of an alternative hypothesis, that centrality of occupational choice is affected by identification with parents, is therefore justified with the male sample.

The third hypothesis, testing H_o, was rejected for males and not rejected for females when a Spearman Rank Order Correlation between centrality of occupational choice and socioeconomic level was computed. Since a significant correlation was found for males, an alternative hypothesis stating that centrality of occupational choice is affected by socioeconomic level can be accepted. The positive correlation indicated that males from a lower socioeconomic level have more centrality of occupational choice than other males in the sample. No significant correlation was found for females.

Conclusions

Stefflre (1966) proposed that centrality of occupational choice would be related to congruence between self concept, occupational persona, and occupational role expectation. In this study, an attempt was made to measure these three concepts in order to derive a centrality score. The data seem to provide support for a theoretical relationship between these three concepts. A centrality score was acquired which showed differences among the samples as well as a relationship with other variables. Although this is hardly conclusive evidence for the existence of the two newly-proposed theoretical concepts of centrality and occupational persona as postulated by Stefflre (1966), it suggests that studies specifically designed to test the validity and usefulness of the concepts should be undertaken.

The hypothesis based on Stefflre's (1966) proposal that males are more central than females in occupational choices was not supported. Results approach significance ⁸ when centrality is measured by the Interpersonal Check List (ICL). The investigator considers these results meaningful because (1) stated occupational choice should be less ego-involving than actual occupational choice and (2), in other areas of this study, females are definite about occupational choices and make similar responses to philosophical and psycholgical reasons for choice to what males do. Therefore, that males were significantly different

⁸ p=.05 when p < .0571.

from females on centrality of occupational choice at the .10 level of significance seems worthy of consideration.

Although results were for the most part significant for males, both identification with parents and socioeconomic level being related to centrality of occupational choice, the same hypotheses and procedure for females showed no significant results. An explanation for this may be that females cannot be compared to males on the same dimensions. Previous research has pointed out that females are conflicted and diffuse about their occupational choices during adolescence. If this investigation goes a step further in suggesting that the lack of ego-involvement and, therefore, the continued conflict and diffusion, is apparent for women at a mid-point in their college years, then it might follow that women are not being tested on dimensions meaningful to them. Women may not want to reveal their occupationl persona, to be perceived as work-oriented, as men do. Because of their role conflicts regarding marriage and work, it may not be relevant to test women before they enter an occupation.

Research Implications

One must be cautious in generalizing the findings of this study to other than a university population. That the hypotheses with males were in general supported suggests that the topic of this study is worthy of replication with university males. Since stated rather than actual choices

were used as a measure, conclusions drawn may apply only to stated occupational choices at a particular point in the occupational development of university students. A similar study with employed males would provide meaningful information on centrality of occupational choice for persons at work as well as comparisons with the non-employed university students of this study.

Since the results of this investigation with females were inconclusive, additional studies of this nature should be carried out in an attempt to determine what dimensions are meaningful to women's vocational choices. A replication of this study with female students might prove or disprove the non-significance of results. In addition, it would seem particularly pertinent to test employed women to see whether centrality of occupational choice is significant after jobs have been chosen and started. If, as suggested above, it is not relevant to test women before they enter an occupation, the implications of such a finding for future research with women's occupational development could be meaningful.

Because the present investigation is a first look at the relationship between centrality of occupational choice and the variables of sex, identification with parents, and socioeconomic level, such research as the above is needed to verify the findings of this study. Also, studies of other variables meaningful to centrality of occupational choice would add to the results of this investigation.

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APPENDIX A

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INTERPERSONAL CHECK LIST AND DIRECTIONS

1965 TESTING

GENERAL INSTRUCTIONS FOR COMPLETING THE INTERPERSONAL CHECK LIST

This folder of inventory materials consists of a set of instructions for completing the interpersonal check list, the check list itself, and five answer sheets.

First check to be sure that you have five answer sheets labeled consecutively SELF, MY MOTHER, MY FATHER, IMPRESSIONS I WISH TO CONVEY TO OTHERS, and FEARS ABOUT HOW I IMPRESS OTHERS.

Keep the answer sheets in this order. Note on the answer sheets that the numbers for your responses to the inventory run from left to right rather than in columnar fashion.

Now complete the following information on each answer sheet.

NameDateStudent No.SexDate of Birth (Fill in under Section)

Age (Fill in under Form)

Please write your student number in the allotted place and then also fill your number in the special spaces provided by blackening the spaces that correspond to the six digits of your student number.

BE SURE TO IDENTIFY <u>EACH</u> OF YOUR FIVE ANSWERS WITH THIS INFORMATION.

Now turn the page and read the directions for the Interpersonal Check List by yourself or with the instructor if he so indicates and proceed through the entire five tasks without waiting for further instructions.

THE INTERPERSONAL CHECK LIST Form IV

This is a list of words and phrases which describe the way people behave in relation to one another.

- First, on the separate answer sheet marked SELF, mark the item true if the statement is descriptive of you, in your opinion, at the present time. Mark it false if it is not descriptive of you.
- 2) When you have answered all the items for you, begin with the separate answer sheet marked MY MOTHER and describe her by the same procedure. This will be your opinion of your mother.
- 3) When you have finished describing your mother, use the answer sheet marked MY FATHER to describe him.
- 4) Next, use the answer sheet marked IMPRESSIONS ABOUT MYSELF I WISH TO CONVEY TO OTHERS to describe the ways that you want other people to think of you. Here you are describing the ways that you try to impress others to think about you. For example, if you want to impress others so that they will think that you are "Able to give orders" or that you are "Appreciative" mark the item true.
- 5) Lastly, use the answer sheet marked FEARS ABOUT HOW I IMPRESS OTHERS to describe the ways that you fear other people may think about you. Here you are describing your fears about the kind of impressions you may actually have on others.

Your first impression is generally the best, so go through the list as quickly as you can. However, be certain to consider and answer each item.

The Interpersonal Check List Form IV

- 1. Able to give orders
- 2. Appreciative
- 3. Apologetic
- 4. Able to take care of self
- 5. Accepts advice readily
- 6. Able to doubt others
- 7. Affectionate and understanding 39.
- 8. Acts important
- 9. Able to criticize self
- 10. Admires and imitates others
- 11. Agrees with everyone
- 12. Always ashamed of self
- 13. Very anxious to be approved of 45.
- 14. Always giving advice
- 15. Bitter
- 16. Bighearted and unselfish
- 17. Boastful
- 18. Businesslike
- 19, Bossy
- 20. Can be frank and honest
- 21. Clinging vine
- 22. Can be strict if necessary
- 23. Considerate
- 24. Cold and unfeeling
- 25. Can complain if necessary
- 26. Cooperative
- 27. Complaining
- 28. Can be indifferent to others
- 29. Critical of others
- 30. Can be obedient
- 31. Cruel and unkind
- 32. Dependent

- 33. Dictatorial
- 34. Distrusts everybody
- 35. Dominating
- 36. Easily embarrassed
- 37. Eager to get along with others
- 38. Easily fooled
- 9. Egotistical
- 40. Easily led
- 41. Encouraging to others
- 42. Enjoys taking care of others
- 43. Expects everyone to admire him
- 44. Faithful follower
 - . Frequently disappointed
- 46. Firm but just
- 47. Fond of everyone
- 48. Forceful
- 49. Friendly
- 50. Forgives anything
- 51. Frequently angry
- 52. Friendly all the time
- 53. Generous to a fault
- 54. Gives freely of self
- 55. Good leader
- 56. Grateful
- 57. Hard-boiled when necessary
- 58. Helpful
- 59. Hard-hearted
- 60. Hard to convince
- 61. Hot-tempered
- 62. Hard to impress
- 63. Impatient with others' mistakes
- 64. Independent



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65.	Irritable	101.Self-respecting
66.	Jealous	102. Shy
67.	Kind and reassuring	103. Sincere and devoted to friends
68.	Likes responsibility	104. Selfish
69.	Lacks self-confidence	105.Skeptical
70.	Likes to compete with others	106. Sociable and neighborly
71.	Lets others make decisions	107. Slow to forgive a wrong
72.	Likes everybody	108, Somewhat snobbish
73.	Likes to be taken care of	109.Spineless
74.	Loves everybody	110.Stern but fair
75.	Makes a good impression	111. Spoils people with kindness
76.	Manages others	112. Straightforward and direct
77.	Meek	113.Stubborn
78.	Modest	114. Suspicious
79.	Hardly ever talks back	115. Too easily influenced by friends
80.	Often admired	116. Thinks only of self
81.	Obeys too willingly	117. Tender and soft-hearted
82.	Often gloomy	118. Timid
83.	Outspoken	119. Too lenient with others
84.	Overprotective of others	120. Touchy and easily hurt
85.	Often unfriendly	121. Too willing to give to others
86.	Oversympathetic	122. Tries to be too successful
87.	Often helped by others	123. Trusting and eager to please
88.	Passive and unaggressive	124. Tries to comfort everyone
89.	Proud and self-satisfied	125.Usually gives in
90.	Always pleasant and agreeable	el26. Very respectful to authority
91.	Resentful	127. Wants everyone's love
92.	Respected by others	128. Well thought of
93.	Rebels against everything	129. Wants to be led
94.	Resents being bossed	130. Will confide in anyone
95.	Self-reliant and assertive	131.Warm
96.	Sarcastic	132. Wants everyone to like him
97.	Self-punishing	133.Will believe anyone
98.	Self-confident	134.Well-behaved
99.	Self-seeking	
100	Shrewd and calculating	

APPENDIX B

COVER LETTER TO CONTACTED PARTICIPANTS

IN THIS STUDY

June 15, 1967

Dear

Let me introduce myself as that voice out of the very warm weekend when you were studying for finals. You kindly agreed to answer my questionnaire and test on vocational choice so here it is!

Enclosed, along with the questionnaire and test, is a stamped and addressed envelope in which to return them.

I appreciate your help and I will be pleased to talk to you next fall about the results of the research.

Thank you.

Sincerely yours,

Gladys Strahl Counselor MSU Counseling Center

APPENDIX C

COVER LETTER TO NON-CONTACTED PARTICIPANTS

IN THIS STUDY

June 15, 1967

Dear

Enclosed are a questionnaire and test which are part of a research project on vocational development in college students. I was not able to reach you before you left for the summer; therefore, would you kindly fill out and return them in the enclosed stamped and addressed envelope.

Your assistance will be appreciated. The questionnaire will give you an idea of the research and I will be pleased to talk to you next fall about the results.

Thank you.

Sincerely yours,

Gladys Strahl Counselor MSU Counseling Center

APPENDIX D

GENERAL EXPLANATION

OF QUESTIONNAIRE AND TEST

VOCATIONAL CHOICE QUESTIONNAIRE

AND TEST

This questionnaire and test are designed to obtain information that will help in understanding the process of vocational development. Your responses are confidential; the code number will be used only to identify the different parts of the research project.

Please do not fold the test answer sheets.

When you have finished, return the completed questionnaire, the test and the completed test asnwer sheets in the enclosed stamped and addressed envelope. <u>Please return by July 15</u>.

Thank you very much for your help.

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APPENDIX E

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INTERPERSONAL CHECK LIST AND DIRECTIONS

1967 TESTING

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DIRECTIONS FOR TEST

Attached to this page is a list of words and phrases which describe the way people behave in relation to each other. Enclosed also are three answer sheets which are numbered 1, 2, and 3. It is important that you answer them in the order of the directions below.

Mark each answer sheet as quickly as you can, then put it aside and do not return to it again. Your first impression is generally the best but be certain to consider and answer each item. Use a soft lead, # 2 pencil.

- 1. On the separate answer sheet marked <u>SELF</u> (# 1), mark the item true if the statement is descriptive of you at the present time. Mark it false if it is not descriptive of you.
- 2. On the separate answer sheet marked <u>IMPRESSIONS ABOUT</u> <u>MYSELF ON THE JOB I WISH TO CONVEY TO OTHERS</u> (# 2), mark the item either true or false. Here you are describing the way in which you want to express your personality on the job when you enter the job that is your preferred occupational choice.
- 3. On the separate answer sheet marked <u>IMPRESSIONS ABOUT</u> <u>THE KINDS OF PEOPLE ON THE JOB THAT I HAVE CHOSEN</u> (# 3), mark the item either true or false. Here you are describing the people you will be working with when you enter the job that is your preferred occupational choice.

The Interpersonal Check List Form IV

This is a list of words and phrases which may be descriptive of you (or the person you are rating). On the separate answer sheet mark the item true if the statement is essentially or most usually descriptive of you (or the other person). Mark it false if it is not essentially or most usually descriptive. Answer all the items as quickly as you can.

- 1. Able to criticize self
- 2. Able to doubt others
- 3. Able to give orders
- 4. Able to take care of self
- 5. Accepts advice readily
- 6. Acts important
- 7. Admires and imitates others
- 8. Affectionate and understanding
- 9. Agrees with everyone
- 10. Always ashamed of self
- 11. Always giving advice
- 12. Always pleasant and agreeable
- 13. Apologetic
- 14. Appreciative
- 15. Big-hearted and unselfish
- 16. Bitter
- 17. Boastful
- 18. Bossy
- 19. Businesslike
- 20. Can be frank and honest
- 21. Can be indifferent to others
- 22. Can be obedient
- 23. Can be strict if necessary
- 24. Can complain if necessary
- 25. Clinging vine
- 26. Cold and unfeeling
- 27. Complaining
- 28. Considerate
- 29. Cooperative
- 30. Critical of others

- 31. Cruel and unkind
- 32. Dependent
- 33. Dictatorial
- 34. Distrusts everybody
- 35. Dominating
- 36. Eager to get along with others
- 37. Easily embarrassed
- 38. Easily fooled
- 39. Easily led
- 40. Egotistical and conceited
- 41. Encourages others
- 42. Enjoys taking care of others
- 43. Expects everyone to admire him
- 44. Firm but just
- 45. Fond of everyone
- 46. Forceful
- 47. Forgives anything
- 48. Frequently angry
- 49. Frequently disappointed
- 50. Friendly
- 51. Friendly all the time
- 52. Generous to a fault
- 53. Gives freely of self
- 54. Good leader
- 55. Grateful
- 56. Hardboiled when necessary
- 57. Hard-hearted
- 58. Hardly ever talks back
- 59. Hard to impress
- 60. Helpful



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- 61. Impatient with other's mistakes
- 62. Independent
- 63. Irritable
- 64. Jealous
- 65. Kind and reassuring
- 66. Lacks self-confidence
- 67. Lets others make decisions
- 68. Likes everybody
- 69. Likes responsibility
- 70. Likes to be taken care of
- 71. Likes to compete
- 72. Loves everyone
- 73. Makes a good impression
- 74. Manages others
- 75. Meek
- 76. Modest
- 77. Obeys too willingly
- 78. Often admired
- 79. Often gloomy
- 80. Often helped by others
- 81. Often unfriendly
- 82. Outspoken
- 83. Overprotective of others
- 84. Oversympathetic
- 85. Passive and unaggressive
- 86. Proud and self-satisfied
- 87. Rebels against everything
- 88. Resentful
- 89. Resents being bossed
- 90. Respected by others
- 91. Sarcastic
- 92. Self-confident
- 93. Selfish
- 94. Self-punishing
- 95. Self-reliant and assertive

- 96. Self-respecting
- 97. Self-seeking
- 98. Shrewd and calculating
- 99. Shy
- 100. Skeptical
- 101. Slow to forgive a wrong
- 102. Sociable and neighborly
- 103. Somewhat snobbish
- 104. Spineless
- 105. Spoils people with kindness
- 106. Stern but fair
- 107. Straightforward and direct
- 108. Stubborn
- 109. Tender and soft-hearted
- 110. Thinks only of himself
- 111. Timid
- 112. Too easily influenced by friends
- 113. Too lenient with others
- 114. Too willing to give to others
- 115. Touchy and easily hurt
- 116. Tries to be too successful
- 117. Tries to comfort everyone
- 118. Trusting and eager to please
- 119. Usually gives in
- 120. Very anxious to be approved of
- 121. Very respectful to authority
- 122. Wants everyone's love
- 123. Wants everyone to like him
- 124. Wants to be led
- 125. Warm
- 126. Well thought of
- 127. Will believe anyone
- 128. Will confide in anyone

APPENDIX F

OCCUPATIONAL CHOICE QUESTIONNAIRE

	Code No.				
	QUESTIONNAIRE				
1.	My college major is				
2.	The occupation I plan to follow is				
	My specialization in this occupation (if decided upon) is				
3.	That this occupation is the one for which I really want to prepare I am: Very Fairly Very Certain Uncertain				
IF	you have not answered 2 and 3, please answer 4:				
4.	What do you think is likely to be your occupation?				
	What specialization?				
	How certain? Very Fairly Very Certain Certain Uncertain Uncertain				
5.	Finish this sentence: If I had my wish to go into any kind of work				
	I wanted, my choice of occupation would be				
6.	The occupation I have chosen (or am likely to choose) will permit me to have a home that is:				
	very much like the home I grew up in.				
	somewhat like the home I grew up in.				
	not at all like the home I grew up in.				
7.	Have you had counseling at MSU's Counseling Center? Yes				
	No				
	If Yes, approximately how many interviews?				

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Code No.

Questionnaire (2)

	Father	Mother
Junior high school or less		
Attended high school		
Graduated from high school		
Attended business or technical school		
Attended college		
Graduated from college		
Post-college courses		1

8. Parents' Education (please check for each parent)

9.	Father's occupation	_
	Mother's occupation	

10. Consider that time in the future when you will go into a particular job. What ideas do you have about the major reason or force which will most influence your choice?

Different reasons for your job choice are listed below. Please rank them, keeping in mind that they apply to that future time when you will be choosing a particular job.

a. In considering reasons for your job choice, rank the following from 1 as the most important to 5 as the least important: 1 being the most important; 2 the next most important; 3 the next; 4 the next; and 5 the least important.

A job as a calling to a life work	
A job which depends on whether times are good or bad	
A job in which I can be creatively useful	
A job in which I follow a family tradition	
A job which, above all, is available when I need it	

b. In considering reasons for your job choice, rank the following from 1 as the most important to 5 as the least important (just as in a above).

A job where I have prestige and status with my family and friends

A job that seems to be a lucky opportunity just when I graduate and need it.

A job where I can stand up for what I believe in

Go on to next page...

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Code No.

A	job which	depends	on the	economy	of the	country	
at	the time	I need a j	ob				
Α	job most	suited to	my ab	ilities			

c. In considering reasons for your job choice, rank the following from 1 as the most important to 5 as the least important (just as in a and b above).

A job which is intellectually interesting	
A job which depends on the availability of jobs in our economy at the time I graduate and need a job	
A job which I find out about through close friends who know me well	
A job in which I am of service to others in this wor	·ld
A job in which I can work with pleasant associates.	

d. In considering reasons for your job choice, rank the following from 1 as the most important to 5 as the least important.

A job where I can use friends and associates to help me in finding and keeping the right job for me

A job where I help to change the world for the better

A job where I exercise leadership

A job like that of a person I admire and respect very much

A job dependent on whether the economy is expanding or contracting at the time I need a job

e. In considering reasons for your job choice, rank the following from 1 as the most important to 5 as the least important.

A job dependent on the employment and unemployment rate at the time I get a job

A job which gives me a chance for uniqueness and individuality

A job which my parents and I agree on

A job which comes along by chance at the time I need it most

A job where I accomplish something of great signficicance to humanity

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APPENDIX G

INTERPERSONAL CHECK LIST

CIRCULAR CONTINUUM

FIGURE 1



2

APPENDIX H

RANKS OF CENTRALITY FOR MALE AND FEMALE STUDENTS WITH DIFFERENT KINDS OF IDENTIFICATION WITH PARENTS

TABLE I

Parent of Like Sex (N=15)		Parent of Cross Sex (N=15)		Both Parents (N= 27)		Neither Parent (N=27)	
I.D.*	Rank	I.D.	Rank	I.D.	Rank	I.D.	Rank
132	1.5	133	4	208	1.5	148	3
211	13	103	7	222	5	118	14
116	15	219	16	102	6	130	19
180	18	182	17	213	8	166	23
161	20	178	21	200	9	173	25
108	31	210	24	192	10	198	30
195	33	129	40.5	120	11	112	34
139	37	220	48	169	12	175	36
104	4 5	159	53	184	22	177	44
203	4 9	226	61	115	26	212	46
232	50	215	66	100	27	101	47
218	56	144	68	135	28	150	51
171	67	185	74	143	29	196	54
127	69	186	75	181	32	156	55
110	72	194	76	105	35	190	59
				197	38	174	60
				179	39	162	62
				124	40.5	125	64
				231	42	142	65
				107	43	145	70
				122	52	114	71
				147	57	126	77
				183	58	167	80
				214	63	131	81
				172	73	176	82
				160	78	164	83
				111	79	233	84
R ₁ = 576.5		R ₂ = (650.5	R ₃ =	924	R ₄ = 1	1419

Ranks of Centrality for Male Undergraduate Students with Different Kinds of Identification with Parents

* I.D. = Identification number for subject.

Parent		Parent		Both		Neither	
of Like Sex (N=20)		of Cross Sex (N=20)		Par	ents	Par	ent
				(N=31)		(N=31)	
I.D.							
238	4	21	9	68	2	261	1
17	5	37	14	247	6	237	3
49	11	32	15	53	7	83	20
268	13	20	18	92	8	284	24
78	16	257	19	71	10	240	34
57	26.5	24	21	287	23	19	35
58	28	25	30	249	17	270	37
299	36	86	38	18	22	51	39
11	47	271	46	46	23	269	40
276	55	40	48	259	25	30	41
245	60	. 35	52	267	26.5	23	42
29	61	73	59	79	29	252	45
97	62	67	65	262	31	275	49
4 8	70	251	66	296	32	285	57
82	76	69	69	290	33	294	64
34	86	2 53	83	264	43	298	67
256	89	64	91	239	44	85	68
12	95	95	94	241	50	47	71
14	98	2 97	99	242	51	45	72
281	100	22	102	13	53	84	74
				255	54	282	78
				50	56	42	79
				61	5 8	38	80
				63	63	66	84
				39	73	96	85
				55	75	75	87
				62	77	236	88
				280	81	254	90
				33	82	10	93
				263	92	244	96
				52	101	65	97
$R_1 = 1038.5$		$R_2 = 1$	038.0	R ₃ =	1336.5	$R_4 = 13$	840.0

R anks of Centrality for Female Undergraduate Students with Different Kinds of Identification with Parents

TABLE II



