

PARENTAL INFLUENCE ON THE CAREER CHOICES OF WOMEN:

SOME COHORT DIFFERENCES

BY

Terri A. Eisler,

Dissertation submitted to the Graduate Faculty of the  
Virginia Polytechnic Institute and State University in  
partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Management, Housing, and Family Development

*Michael J. Sporakowski*  
M. J. Sporakowski, Chairman

*Nancy A. Barclay*  
N. A. Barclay

*Shirley C. Farrier*  
S. C. Farrier

*Dennis E. Hinkle*  
D. E. Hinkle

*David E. Hutchins*  
D. E. Hutchins

August, 1981

Blacksburg, Virginia

## ACKNOWLEDGEMENTS

I would like to express my appreciation to the members of my committee for their time and effort; and especially to my chairman, Michael J. Sporakowski, for his support, concern, and constructive comments.

I want to thank my daughter, Danielle, without whose love, confidence, and cooperation neither my graduate career nor this dissertation would have been possible.

And finally, I want to express my gratitude to George for his patience, wisdom, and faith in me.

## CONTENTS

ACKNOWLEDGEMENTS . . . . .	ii
	<u>page</u>
INTRODUCTION . . . . .	1
Justification . . . . .	4
Theoretical Framework . . . . .	7
Super's Theory of Vocational Development . . . . .	7
Roe's Theory of Career Choice . . . . .	9
Social Learning Theory . . . . .	18
REVIEW OF THE LITERATURE . . . . .	25
Theory . . . . .	25
Parental Influences on Career Choices of Men and Women . . . . .	33
Parental/Societal and Other Influences on the Career Choices of Women . . . . .	43
Traditional vs. Non-Traditional Career Choice in Women . . . . .	55
The Re-entry Woman . . . . .	63
Summary . . . . .	67
METHODOLOGY . . . . .	68
Sampling Procedure . . . . .	68
Variables Studied . . . . .	72
The Instrument . . . . .	74
Research Questions . . . . .	77
Hypotheses . . . . .	77
Analysis . . . . .	78
RESULTS AND DISCUSSION . . . . .	81
Results . . . . .	81
Description of Sample . . . . .	81
Parental Factors . . . . .	87
Parental Modeling . . . . .	87
Parental Reinforcement . . . . .	91
Parental Attitudes . . . . .	93
Multiple Regression Analyses . . . . .	94
Discussion . . . . .	104
Parental Factors . . . . .	105
Parental Modeling . . . . .	105
Parental Reinforcement . . . . .	107

Parental Attitudes . . . . .	111
Career Choice . . . . .	115
Group Membership . . . . .	118
Relationship to Social Learning Theory . . . . .	121
<b>SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS . . . . .</b>	<b>125</b>
Summary . . . . .	125
Purpose . . . . .	125
Background . . . . .	125
Respondents, Method, and Results . . . . .	127
Conclusion . . . . .	128
Limitations of the Study . . . . .	132
The Instrument . . . . .	133
The Sample . . . . .	134
Recommendations . . . . .	135
 <b>BIBLIOGRAPHY . . . . .</b>	 <b>139</b>
 <b><u>Appendix</u></b>	 <b><u>page</u></b>
<b>A. COVER LETTER . . . . .</b>	<b>147</b>
<b>B. QUESTIONNAIRE . . . . .</b>	<b>148</b>
 <b>VITA . . . . .</b>	 <b>158</b>

LIST OF TABLES

<u>Table</u>	<u>page</u>
1. Subjects by Group . . . . .	82
2. Sample Demographics . . . . .	84
3. Daughter's Perceptions of Parental Reinforcement Patterns . . . . .	88
4. Daughters' Perceptions of Parental Attitudes . . . . .	89
5. Correlation Matrix of Criterion and Predictor Variables . . . . .	95
6. Regression of Career Choice on Parental Factors . . . . .	97
7. Regression of Career Choice on Parental Variables, Controlling for Group Membership . . . . .	99
8. Analysis of Variance Between Groups on Parental Variables . . . . .	101
9. Group Means on Parental Variables . . . . .	102
10. Variance in Group Membership Attributed to Parental Variables Derived from Analysis of Variance . . . . .	103

## INTRODUCTION

Parental factors related to the career choices of children have been widely investigated in the literature (Goodale and Hall, 1976; Venerable, 1974; Vetter, 1978; Lyons, 1977). While it appears that certain variables can be isolated as predictive of career choice in males, the variables themselves and the process by which their influence is felt is not as definitive for females, and appears to be more indirect and complex. It would appear to be necessary, in order to clarify this process, to isolate a few specific factors of parental influence, to study the effects of these factors on the career choices of their daughters, and to analyze the contributions of these factors on career choice. The purpose of the present investigation was to isolate three factors of parental influence and to study their contribution to the career choices of female children. The selection of the specific parental variables was determined by the choices of social learning theory as the theoretical frame of reference. While it is recognized that many factors impact upon career development and ultimately career choice (Krumboltz, 1976; Roe, 1957), social learning theory

would suggest that the primary objective of this study be the investigation of these three: 1) parental reinforcement patterns, 2) parental modeling, and 3) parental attitudes. Parental reinforcement is defined as those patterns of behavior which increase the likelihood of an event occurring. Parental modeling is defined as the behaviors or levels of attainment of either parent which the individual is likely to reproduce - these include educational and occupational levels, salary, and patterns of employment. The final variable, parental attitudes, is defined as those beliefs, values, and/or emotions held by the parents and perceived by their daughters regarding female employment, their mother's employment, and their own academic and career achievements and aspirations.

A major concern of theorists and practitioners in the career development field today is the applicability of theories based largely on male career patterns to female career development (Hansen and Rapoza, 1978). Perhaps this is due to what Vetter (1978) perceives as the predominant view of female occupational behavior as "individually transient and collectively insignificant due to type and level of jobs available to them (females) in our society" (p. 3). Whether or not this omission is due to the above or other factors is not to be argued here. The second objective of this study

was to investigate the relationship of the three aforementioned variables to female career choice under a relatively new theoretical frame of reference, the social learning theory of career development. It was assumed that due to its relatively recent development, the traditional patterns of male career development were not the only ones on which the theory and its propositions were based (Krumboltz, 1976). Furthermore, social learning theory recognizes the fact that career development and choice are neither irreversible nor once in a lifetime occurrences, but that they are lifelong processes and subject to continuous changes and modifications. It therefore has potential applicability to the study of female career development and to the investigation of career patterns and choices in differing age groups. This coincides with the third focus of this study: the investigation of differences in the influence of the three parental factors on two cohort groups, college age females and re-entry women.

The present study investigated the relationships among the parental variables of reinforcement patterns, modeling and attitudes on the career choices of their female children. These relationships were studied within the framework of social learning theory, and the differences in the impact of these factors were investigated in two cohort groups, college age and re-entry women.

### Justification

The justification for this study is found in the fact that women comprise over 41 percent of the labor force, and that 90 percent of all women will be employed at some time in their lives (Vetter, Sechler, Lowry, and Canora, 1979). How their career patterns develop and how their choices are ultimately formed are of the utmost importance since women are present in such large numbers in the labor force and their numbers are expected to increase to 46 percent of the labor force in 1990 (Vetter, et al.).

The proportion of women in the labor force has increased steadily from 20 percent in 1900, to 29 percent in 1940, to 33 percent in 1960, to 38.1 percent in 1970, and 40.7 percent in 1976 (Vetter, et al.). Hansen and Rapoza (1978) indicate factors associated with this increase:

1. The availability of jobs, particularly sales, clerical, and service jobs, where there is a preponderance of women (p. 89);
2. The rising divorce rate, declining birth rate, and greater incidence of later marriages (p. 5);
3. The increase in the numbers of women who are educated, college graduates who want to pursue a career (p. 5);

4. The rising inflation rate which makes it a necessity for many families to have a second income (p. 7);
5. The women's movement, which has raised social consciousness and made it acceptable for women to work outside the home (p. 90); and
6. The mechanization and technological advances that have created more jobs for women, and brought many jobs that were previously perceived as beyond their capacities within the scope of their physical abilities (p. 89).

In addition, research by Vetter (1978) and Hansen and Rapoza (1978) has dispelled the myth that women only work for "pin money or to get out of the house." It has been repeatedly demonstrated that women work for the same reasons men do (Vetter). In 1971, half of the 32 million women in the work force were working because of pressing economic need. They were either single, widowed, separated, or divorced, or had husbands whose income were less than \$3,000 a year (Women's Bureau, 1972).

Changes in family size and structure, the declining birth rate, later age of marriage, and the increase in female-headed households are factors which influence the participation of women in the labor force. In addition, technological advances have made many aspects of the homemaker

role less time-consuming thereby increasing the amount of time the woman has free to pursue career or other goals (Women's Bureau, 1974).

In spite of their increasing participation in the labor force, women still face inequities and discrimination: wages paid to women are only 60 percent of the amount paid to men in similar positions and the differential is increasing (Vetter, et al.; Women's Bureau, 1972). Research has also shown that women tend to choose careers below their levels of ability and aspiration (Farmer, 1978). Factors that impinge upon the career development patterns and career choices of women are little understood and largely unstudied (Oppenheimer, 1978; Vetter). It is evident that a need exists to study the career choices of women as they are affected by these various factors, and to develop a comprehensive model of female career choice. It is also evident that this model must be investigated as unique and separate from that of men. This study examined the three factors of parental influence, modeling, reinforcement and attitudes, and their influence on career choice in women.

### Theoretical Framework

A major problem of many theories of career development is that they are based largely upon the investigation of male career patterns (Vetter; Hansen and Rapoza, 1978), and there is some question as to their applicability to the study of female career development. A description of two general theories of career development will follow. A discussion of social learning theory and the rationale behind its choice for this investigation will conclude this chapter.

#### Super's Theory of Vocational Development

Super (1953) emphasized the self-concept in career decision-making, and he perceived career choice as an activity whose goal was to implement the self-concept. The particular behavior engaged in, or vocational choice made, was a function of the individual's stage of life development.

People differ in abilities, interests, and personalities, and these differences qualify them for numerous occupations. Each occupation requires a pattern of characteristics, but there is enough flexibility within occupational categories to allow for some variety in the individuals holding a specific job. Likewise, a variety of occupations may be appropriate for a particular individual. Since life situations change, thereby changing one's self-concept and needs, voca-

tional choices are also subject to change over time. The continuous process of choice making and adjustment occurs in a series of stages depicted as: growth, exploration, establishment, maintenance, and decline.

During the stages of career development, parental socioeconomic level, mental ability, personality characteristics, environmental factors, and opportunities impact upon the individual's career pattern. Maturation, reality testing, and self-concept provide guidelines during the development of these stages. It is Super's contention that the development of a self-concept is synonymous with vocational development, i.e. both are a compromise between one's own needs, abilities and roles, and the need for social approval from others. Essentially it is a balance between individual and social factors. The extent to which one finds adequate outlets for the expression of abilities and interests will determine the amount of satisfaction one receives from work and life. An individual is more likely to be satisfied if his life and work experiences fit in with his self-concept.

Super's theory focuses on the psychological aspects of the individual's personality and the effect that these and parental factors have on one's vocational choice. Vocational development is viewed as an ongoing and continuous process even after a particular choice is made.

### Roe's Theory of Career Choice

Another of the early theories of vocational choice was espoused by Roe in 1957. It generally proposed that a relationship exists between early experiences, attitudes, abilities, interests, and personality factors that affect vocational selection.

Roe hypothesized that:

1. Hereditary bases for intelligence, abilities, interests, and attitudes were non-specific, i.e. genetic elements limit, rather than directly determine, the degree of development and expression.
2. Patterns of development of special abilities are primarily determined by the direction in which the psychic energy is expended involuntarily.
3. The directions are determined primarily by patterns of early satisfactions and frustrations.
4. The eventual pattern of psychic energy, in terms of attention, is a major determinant of the field or fields to which a person will apply himself.
5. The intensity of primarily unconscious needs, as well as their organization, is a major determinant of the degree of motivation, and this degree of motivation is expressed in accomplishment.

6. Needs that are satisfied routinely, as they appear (eating, sleeping, etc.) do not develop into unconscious motivations.
7. Needs for which even minimum satisfaction is rarely achieved will, if higher order, become expunged; if lower order, they will prevent the appearance of higher order needs, and become dominant and restrict motivation.
8. If the satisfaction of these needs is delayed but eventually accomplished, the needs will become unconscious motivators, depending primarily upon the degree of satisfaction felt. The degree of satisfaction felt is dependent upon the strength of the basic need, the length of time elapsed between arousal and satisfaction, and the values ascribed to the satisfaction of the need.

Defensive and other mechanisms often mask gratification patterns in adult life, and may not appear to be directly related to basic needs (Roe, 1957). Roe stated that early experiences with parents, especially the general atmosphere and attitude that surround the interaction, would have a significant effect on one's occupational choice in later life.

Three types of general parental attitudes were proposed:

1) Emotional Concentrating - parents of this type could be either overprotecting or overdemanding, but in either case almost engulf the child, and often depend on him for primary emotional satisfaction; 2) Avoidance of Child - minimal need gratification is provided for the child in this type of home, and he is either rejected and intentionally left unsatisfied, or neglected and left ungratified unintentionally; and, 3) Acceptance of Child - within this type of family atmosphere the child is accepted as a full-fledged member with appropriate responsibilities and privileges. He can either be casually accepted and not interfered with by default, or he can be lovingly accepted, with planned encouragement, in a warm atmosphere. In neither case is the child concentrated upon, i.e. given an overabundance of attention, nor is he neglected.

Children growing up in homes that were primarily over-concentrating soon learn that need satisfaction is often contingent on dependency and conformity. They are constantly aware of the opinions and attitudes of others and their need to maintain the positive regard of others.

Children growing up in avoiding homes may never have their needs for love and self-esteem satisfied, but usually have their safety and physiological needs met. As adults

they may develop defensive awareness of others and develop aggressive tendencies which are socially acceptable in occupational terms. Thus they may choose occupations where aggressive behavior in relation to other people is acceptable, or they may reject people entirely and orient themselves toward non-person occupations.

Children growing up in accepting homes have more reasonable expectations of their ability to obtain need satisfaction, are more accepting of themselves, their needs and interests, and can and often will choose person or non-person oriented careers without being defensive about their choice.

To condense Roe's theory still further, parental attitudes during childhood influence the interests and abilities of the child, which in turn have implications for future patterns of vocational development and choice. The basic orientation of working with person or non-person occupations stems from the early family interaction patterns. The effects of these patterns impact upon the individual's aptitudes and interests, and eventually upon his career choice.

Attempts to test Roe's theory in the past have not met with much success. Medvene (1969), however, contended that the problem was not with Roe's theory, but with the methods used to test it. Prior to his research, studies viewed entire occupational classifications as person or non-person

oriented, Medvene advocated taking into account the differences in orientations within an occupation. For instance, in Medvene's study psychology was used as the classification - but distinguished among the various components - such as clinical, counseling, education, research, and industrial as being person or non-person oriented. Using this distinction, he studied 461 male graduate students in psychology and collected data by means of the Biographical Questionnaire developed by Roe and Siegelman in 1964. The results of this study supported Roe's theory. Subjects in homes where the dominant parent was either concentrating or accepting entered person-oriented occupations in significantly greater numbers than persons from child-avoiding homes. Subjects who perceived either parent as avoiding tended to enter non-person oriented fields. Medvene concluded that a relationship does exist between early parent-child relationships and subsequent occupational choice.

A more recent study by Medvene and Shueman (1979) lent further support to Roe's theory. Information from 340 males in engineering was studied by use of the Biographical Questions and Family Relations Inventory (Brunkan and Crites, 1964). The results of the study supported the assumption that students in non-person oriented branches of engineering were more likely to describe their parents as avoiding,

whereas those in person-oriented branches were more likely to describe their parents as accepting. Overall results confirmed the hypothesis that the child-rearing attitudes of the dominant parent are influential in determining the career choices of their offspring. In addition, children reared in families where the dominant parent is perceived as primarily avoiding are more likely to develop spheres of interest in and later make occupational choices in non-person oriented fields.

In contrast to the findings of Medvene's studies (1969, 1978), Switzer, Gregg, Miller, and Young (1962) tested Roe's theory on chemistry and ministerial students, but were unable to find data to support it. However, after reading Medvene's articles it appears obvious that Switzer, et al. suffered from the same lack of precision as many of the other studies that failed to support Roe's theory. They assumed that ministers would naturally represent the person oriented career and chemists the non-person oriented. What these authors failed to do was test this hypothesis first, then to distinguish the various types of tasks within each category as person or non-person oriented.

In general, the present writer has found merit in some of Roe's premises. It is a well substantiated educational and psychological fact that early childhood experiences influ-

ence our lives. Vocational development is a part of life and thus vocational choices are also affected. Early parent-child interactions can affect interests, values, priorities, and social skills, thus they also can affect vocational choices. Roe's theory can provide a valuable foundation from which we can begin to build a catalog of parental influences on career choices.

The theories of Roe (1957) and Super (1953) share the basic premise that vocational development and vocational choice are contingent upon that choice meeting the needs, values, and/or self-concept of the individual. For both theories it is essential that the occupation supply some reward or meet some need, whether it is confirmation of one's self concept, as in Super's theory, or a need to be with people, in Roe's theory.

In contrast, specific theories dealing with female career choice have not yet reached this level of theoretical sophistication, and are neither abundant nor mature at the present time. Zytowski (1969) provided a theory of career development based on nine postulates that defined the distinctive patterns, stages, and determinants of female career patterns as unique from those of men. This theory has not generated a great deal of research, thus there is little data to support or refute it. A study by Wolfson (1972) of

306 women investigated whether women's vocational plans could be distinguished in terms of three levels of participation. The three levels of female vocational participation were delineated as follows: 1) Mild - very early or late entry, brief span and low degree of participation; 2) Moderate - early entry, lengthy span and a low degree of participation; and 3) Unusual - early entry, lengthy or uninterrupted span and a high degree of participation. Wolfson found that education and marital status were the most powerful predictors of participation patterns, and that vocational patterns were not predictable from information gained during the freshman year, but were predictable from variables studied five years later. Other variables that differentiated among levels included marital status, husband's income, number of children, age of youngest child and satisfaction with marriage. It would appear from this research that a woman's career choice and pattern are highly influenced by external factors rather than internal ones such as needs, abilities, and interests.

A theory of occupational choice for women was developed by Psathas (1968) who maintained that factors important in the development of occupational choice operate in special ways for women. The influence of these factors on males has received a great deal of study, but until recently little

has been done in the way of investigating the specialized influence these factors have on females.

In choosing a career, the female attempts to find and maintain a realistic and effective relationship between her sex role and her occupational role. The decision to marry or not, to have children or not and, if so, when, the desire for social mobility, and the husband's attitude toward his wife's working all enter into this relationship (Psathas; Zytowski, 1969; Huth, 1978). For females there is a direct relationship between social mobility and mate selection. Typically the family's status, social class, prestige, and income were determined by the husband's occupation. Choosing a career may influence a female's mate selection, and therefore her ability to be socially mobile (Huth; Burlin, 1976; Crawford, 1978).

Females measure the attractiveness of occupations on the basis of their own ratings of the occupation, their perceptions of how eligible males rate the occupation, and their perceptions of how eligible males rate females engaged in such occupations. A female's field of possible mates can be expanded or limited by her career choice (Psathas; Punch and Sheridan, 1978).

Another factor influencing the female's vocational choice is whether or not her mother worked, the type of work she

did, its temporal status (i.e., permanent, continuous, interrupted, etc.) and the reasons for it - career development, money, or to get out of the house. A theory of vocational choice for women must take the unique operation of these factors into account before it can develop generalizations to account for career choices in females (Burlin; Crawford).

Although deficient in documentation, these theories present an alternative to the traditional, male-dominated theory of vocational choice. What is needed now is a theoretical frame of reference that can account for the various common factors as well as unique influences on both sexes, that can be applied to the career development and career choice of both, and that can generate replicable research.

### Social Learning Theory

A social learning theory of career selection attempts to explain how educational and occupational preferences and skills are acquired, and how choices in educational experiences and careers are made (Krumboltz, 1976). It recognizes the effects of genetic, environmental, learning, cognitive, and emotional factors, in combination with skills and abilities, that interact in unique ways to promote movement and ultimately choice along one career path or another. The

theory allows for changes in career plans and choice that can be produced by future events, and recognizes the fact that career development and counseling are and should be life-long processes.

The social learning perspective on career counseling has its roots in the pioneer works of Bandura and Walters (1959 and 1963; and Bandura, 1969). This theory concludes that most human behavior accrues from observational learning and vicarious reinforcement. Observational learning is the process in which an individual learns a behavior by watching another person perform it and noting the consequences of this behavior for the performer. That most behaviors are learned this way, either intentionally, by example, or accidentally, is the central tenet of Bandura's theory. The effect of direct reinforcement is not denied, but its importance in social learning theory is greatly decreased when compared to the operant conditioning theory of Skinner (1957).

Essential to Bandura's theory is the concept of modeling. The model provides the basis for observational learning and vicarious reinforcement. By watching the model perform and noting the consequences of the model's behavior, the observer not only learns the behavior but anticipates its consequences as well. Certain features of the model will make it

more effective; similarity in age, sex, and social status have been demonstrated to be important by Bandura.

A requisite for observational learning is discriminative observation, whereby the individual attends to, recognizes, and differentiates the different aspects of the model's response, and is thus able to apply or perform these behaviors in specifically appropriate situations. Fine discriminations take time, but are a necessity for effective social functioning. Conversely, generalization is also necessary for the maintenance and performance of social behaviors. Generalization is said to occur when patterns of responses once produced in a specific situation, are now repeated in similar situations. The degree of generalization is a function of the similarity between the two situations.

Reward or reinforcement increases the likelihood of a response being repeated (Bandura and Walters, 1959, 1963; Ferster and Skinner, 1957). Individuals observing the positive reinforcement of a model for a specific behavior will be more likely to repeat that behavior themselves in a similar situation. Lack of reinforcement extinguishes a response and punishment or negative reinforcement inhibits it.

It follows then from the social learning theory perspective that behaviors that were either directly or indirectly reinforced will take on a positive value. If basic needs

are satisfied by positive means, the experience in the situation will generalize to other similar situations, and the behavior that produced the positive response is likely to be repeated.

If a child observes his parent obtaining positive rewards from his occupation, or specifically his person-oriented occupation, the child is likely to associate positive or pleasant attributes to this experience/occupation and will be more likely to attempt a similar behavior. If, on the other hand, a child observes negative consequences accompanying his parent's occupation or specific behavior, he is less likely to engage in it, and may tend to avoid it.

Thus a choice of occupation may be influenced by the role models parents established in the early identification process. Occupational choices can be limited or expanded by observing the consequences of one's parents' perceived job performance.

Job satisfaction for parents is related to the extent to which their values, needs, aptitudes, interests, and self-concept are satisfied (Super, 1953; Hoppock, 1957). Their attempts to achieve satisfaction and the extent to which they are successful can also influence the vocational development and ultimate occupational choice of their children.

The socioeconomic status of parents has been referred to in the literature as an important determinant of vocational choice (Gansemer & Bealer, 1977; Werts, 1972). Specifically, white collar and professional parents are more likely to provide both direct and indirect reinforcement for their children as they narrow their career choices in this direction. Children perceive the relative worth of an occupational level by viewing the amount of positive reinforcement its members receive. As the child's world expands, so does his capacity to view individuals other than family members at work and to observe the degree of positive reinforcement they receive in their work. Since research has shown that this type of observational learning can influence both immediate and long-term choices and behavior, there would appear to be no reason to believe that this theory could not be expanded to include vocational development and choice. Thus there is support for its application to career development and career choice (Bandura and Walters, 1959). Furthermore the works of Krumboltz (1976) and Gelatt (1977) have demonstrated the applicability of social learning theory to career patterns in both sexes. Social learning theory specifies the several types of influences common to all individuals, but not their degree of influence, pattern of interaction, nor the end result. Thus it is broad enough to

account for most patterns of development and specific enough to provide a series of propositions that can produce testable hypotheses.

It is evident, in view of the fact that current theories of career development and choice do not appear applicable to women, that a more comprehensive theory is needed (Psathas, 1968; Vetter, 1978). In addition, the few theories that do exist which deal specifically with women have either not reached maturity or have not generated substantial supportive research. Such a theory would need to account for the influence of broad factors and also define how the interaction of these factors can produce unique differences between the sexes and among females in particular. While it is recognized that all theoretical approaches will have some shortcomings, especially recent theories, the social learning approach to this problem seems most appropriate at this time since it takes into account both general and specific patterns of influence and development. The application of social learning theory to career development is a rather recent innovation. Substantial amounts of research in its new application are lacking. Criticism due to the above can be ameliorated since there has been a great deal of research substantiating the claims of Bandura and his colleagues (1959, 1963, 1969) and thus the basic premises of social

learning theory appear to be well founded. Awareness of both its advantages and shortcomings should force the researcher to conduct investigations with a critical eye, but should not prevent the further use and testing of this theory.

The current study dealt with the problem of career choice in women, specifically parental influences as antecedents. It sought to investigate the relationship between parental influences and the career choices of two groups of women: college age females and re-entry women. In addition it investigated the effects of parental influences on career choice in women using the theoretical framework of social learning.

The general questions investigated by this study included: What are the particular parental influences on female career choice? Do these influences differ in their effects on college age and re-entry women? And, can social learning theory account for these effects and the differences, if any, between the cohort groups? Specifically, do parental attitudes, modeling, and reinforcement patterns influence female career choices? And, do these factors differ in their impact on college and re-entry women?

## REVIEW OF THE LITERATURE

### Theory

The major theoretical framework chosen for this study and for review is identified by many names. Crites (1978), Krumboltz and Thoresen (1969), and Goodstein (1972) discuss the behavioral approach to career counseling. Gelatt (1962) describes it as the decision-making conceptual framework. Ferguson (1976), Jones (1976), and Birk (1976) also describe decision-making or problem-solving as a theoretical approach to career selection. Recently Krumboltz (1976) and Krumboltz and Gelatt (1977) have defined a social learning theory of career decision-making. While this array may sound confusing, the basic theoretical orientation to all of them is the behavioral approach.

The approach is founded on the principles of learning theory: that variables can be operationally defined and, for the most part, empirically demonstrated. Behavioral approaches take into account external factors of family and environment, internal factors of genetic make-up, and cognitive factors, which are often unobservable, that cause individuals to behave and think the way they do.

Bandura (1959) recognized the role of cognitions in behavioral acquisition and attitudinal formation. Recently even the hard-line behaviorists have recognized the existence of unobservable thoughts, emotions, or cognitions and the important role they play in the modification of behavior (Krumboltz and Thoresen, 1976).

The early behavioral approaches to career choice were either theoretic (Goodstein, 1972) or pragmatic (Krumboltz and Thoresen, 1969). Central to the theoretic position is the role of anxiety. Goodstein and others hypothesized that anxiety, acting as either the antecedent or consequent of behavior, is responsible for most of the indecision or the more pervasive indecisiveness in career selection problems. When anxiety follows the behavior, the problem is often one of simple indecision about a career choice, but where anxiety is both the antecedent and consequent of the action, the problem is more pervasive, and it is known as indecisiveness. For both problems the goal is to eliminate the anxiety so that a choice can be made. However, the correct diagnosis of the type of anxiety is paramount for this approach since it determines the type or types of techniques and methods used.

The predominant focus of the pragmatics, on the other hand, is on the elimination or reduction of maladaptive be-

haviors. The long range goal is one of acquiring decision-making skills and adaptive behaviors. Specific goals are determined during counseling sessions, and specific skills are taught and modeled by the counselor in order to aid the client in the acquisition of these skills (Krumholtz and Thoresen) .

Another approach to the problem of career development and decision-making skills was defined by Gelatt (1962) . He proposed a model that illustrates the continuing and cyclical nature of career selection. Briefly, the model assumes that the individual becomes aware that 1) he needs to make a decision, that 2) he lacks adequate information, and that 3) he has at least two behavioral options open to him. Next the individual, with or without professional assistance, collects information or data on the area in question. How these data are utilized is of paramount importance as it impacts on the final results of the process. The evaluation of the data in terms of desirable outcomes, and the realistic appraisal of self and environment is the next step. Finally, a decision, either temporary or terminal, is made and the individual takes some course of action. The decision-making process is continuous, and goals may be changed when new data are collected, utilized, and evaluated. This approach is useful in light of the fact that many individuals

are currently re-examining their lives, their careers, and their priorities, and changing them at points in their lives when it was previously believed that these patterns were to be maintained until old age.

Recently, Krumboltz (1976) has specifically applied the principles of social learning theory to career selection, and has proposed a model whose wide range of applicability makes it appropriate for use with both sexes and differing age cohorts. Specifically, it proposes that:

1. Occupational placement is the result of a complex interaction of genetic components, environmental events and conditions, and learning experiences which result in the development of various task approach skills.
2. Career selection is a mutual process influenced not only by decisions made by each individual involved, but also by social forces which affect occupational availability and requirements. That is, people select, and are selected by, occupations.
3. Career selection is a life long process. It does not occur at only one point in time, but is shaped and changed by events and decisions that occur from infancy through the retirement years.
4. Career selection is not accidental, it is caused. The causal sequence is so complex that the prediction

of occupational selection is impossible with any degree of certainty for any individual.

5. Career indecision can be due to factors such as the unsatisfactory nature or insufficient number of career relevant learning experiences, or the inability to apply a systematic method to career decision-making due to the fact that the individual has not yet acquired these skills. Indecision results when certain learning experiences have not occurred.
6. Career counseling is a process by which new learning experiences are made available, which in turn motivate the client to initiate and explore career-relevant activities. It is not merely a way of matching personal characteristics, as other factors are likely to be involved (p. 80).

The factors that influence career decision-making include: Genetic endowments and special abilities. Certain inherited characteristics may limit an individual's educational and occupational skills and preferences. These include sex, race, physical appearance, and personality characteristics (Krumboltz, 1976). While it is unclear what proportion of the resultant effect is due to environmental or heredity factors, certain abilities predispose individuals to make particular education and career selections.

These include intelligence, muscular coordination, and musical and artistic abilities.

Environmental conditions and events. Factors outside the control of the individual impinge upon his/her career preferences, skills, and plans. These environmental conditions may be due to human action or natural forces, and include: the number and nature of job opportunities; the rate of financial return for various occupations; labor laws and union rules; family training experiences, resources, and values; technological developments; natural disasters; and, the availability of and demand for natural resources.

Learning experiences. Learning experiences are divided in this schema into two categories, instrumental and associative learning experiences. Instrumental learning experiences are those in which the individual acts on his environment to produce certain results. Associative learning experiences are those which occur when the individual's response patterns are a reaction to external stimuli. Observational learning is an example of the latter (Bandura, 1963). In addition, the classical conditioning paradigm of pairing a neutral stimulus with an emotionally charged one, with the result being an emotional response to the once neutral stimulus, also occurs. Occupational selection is also influenced by the individual's past learning experiences. This

theory accounts for the almost infinite variety of these experiences by recognizing the very complex interaction of stimuli and reinforcement patterns (Krumboltz and Gelatt, 1976). The acquisition of adaptive or successful skills for career planning, development, and performance are gained through instrumental learning experiences. The emotional responses and generalizations that individuals form about specific occupations, often through relatively little exposure or few examples, are acquired through associative learning experiences.

Task Approach Skills. The outcome of each task or problem is determined by the particular set of task approach skills utilized. These skills may be modified by each outcome, and thus feedback may cause the individual to change or learn more task approach skills. Task approach skills are the result of a complex and largely unknown interaction between genetic endowments and environmental factors. They include values, work habits, mental sets, cognitive processes, and emotional responses (Krumboltz, 1976). Thus, although each influence has an effect on the career decision-making process, they also interact among themselves to influence the acquisition of skills, the learning experiences, and environmental conditions that provide the individual with a complex and unique pattern of career development.

In summary, the social learning theory approach to career development and choice takes into account the various impacting factors of environment, heredity, and learning skills. It recognizes the complex and variant nature of these influences. It allows for change and maturation in the individual with regard to these influences, and takes into account the continuous nature of career development. Social learning theorists are cognizant of the fact that individuals are unique, not only in their genetic make-up, but also in their reactions to environmental and learning factors. Social learning theory can be expanded to account for the effects of parent-child interaction on career choice (Roe, 1957) by delineating early genetic, environmental, and learning experiences in the home, and it can account for the differential effects these factors have on the career development patterns of men and women. Social learning theory contains general propositions derived from behavioral principles which can account for gross behavioral patterns, and specific propositions that can be applied to unique career development situations. It is non-sexist in its approach, unambiguous in its concepts, and operationally defineable in its propositions. It is therefore applicable to the theme of this study: career choice in women and the parental influences on that choice.

### Parental Influences on Career Choices of Men and Women

The influence of parents on the vocational choices of their children has been explored in the literature (Shaffner and Klemer, 1973; Becker and Murff, 1976). The family is often the most significant influence on the child's occupational choice, yet many agencies and institutions have failed to utilize this most powerful resource.

The literature on vocational guidance and child development (Shaffner and Klemer) delineates five major areas of parental influence on career choice: parents serve as models, as affectors of children's self-concept, as motivators of children's interest and achievement, as providers of the development environment, and as job information givers. The family is the primary group that provides work role models early in the child's development. Parents furnish the role models with which their children can identify. Research by Becker and Murff, Venerable (1974), and others indicate that college students and other young people cite their parents as the major influence on their career choices.

Other research by Grandy and Stahmann (1974), Goodale and Hall (1973), and Dewinne, Overton, and Schneider (1978) support Holland's (1973) hypothesis that fathers' personality types and the manifestation of this personality type in their occupational choices is associated with similar types

of personalities expressed in occupational choices by their sons. The attitudes, habits, and values of the parents provide models for task orientation in their children. If achievement and education are viewed as positive by the parents, these values will be internalized by the child (Bandura, 1963). Parents can also provide the role models for successful career development and choice (Krumboltz, 1976; Holland, 1973; Davis, 1965).

In addition, parents have a strong influence on the development and maintenance of their child's self-concept. A positive self-concept can be developed through realistic and encouraging interactions with family and parents. Parents who continually undermine a child's ability and achievements can do serious damage to his self-concept. The amount of confidence a child has in himself will influence the amount of effort he will put into a task, his expectations of himself and his abilities, his actual performance, and ultimately his choice of a vocation (Roe, 1957; Shaffner and Klemer, 1973).

Parents can promote their child's motivation to achieve by arranging environments and experiences so that the child is successful at his attempts (Shaffner and Klemer, 1973). Through success the child is positively reinforced, and is thus likely to try this task and others again. Parents can

provide the resources for each endeavor by providing encouragement and opportunities for continuing education.

Parents also provide an environment in which their child develops. Roe (1957) recognized the importance of parental attitudes rather than specific parenting techniques as influences on the child's personality and ultimate career choice. Shaffner and Klemer (1973) asserted that parental attitudes that foster achievement, that provide love, and acceptance, and encourage confidence but are not over-demanding and over-protecting are important determinants of successful vocational choice in their children.

Finally, according to Shaffner and Klemer (1973) parents are job information givers. Although they may only possess a narrow view of job opportunity, training, and requirements, they do possess and can pass on this knowledge to their offspring. The authors feel that parents have the responsibility to widen their scope of knowledge so that they can fulfill their roles as information givers effectively.

Other areas of investigation on the influence of parents on the occupational choices of their children have examined the effect of parental personality types and their effect on the vocational choices of their children. Grandy and Stahmann (1974) conducted personal interviews with 603 freshmen

at the University of Iowa. They collected data on student's occupational choices and parental occupations, and coded them according to the six occupational/personality types defined by Holland (1973). The results supported Holland's theory and the hypothesis that a relationship exists between parents' and offsprings' personality types as expressed in occupational choices. Specifically a relationship existed between father-son, mother-daughter, and father-daughter personality types. No relationship was found to exist between the personality/occupational type of the mother and that of her son. An important, serendipitous finding of this study was in regard to the relationships that existed between both mothers' and fathers' personality/occupational types and that of their daughters. It was expected that only one parent, the mother in this case, would be more dominant. However the data did not support this hypothesis; mothers were only slightly more influential. There may be additional support for the premise stated earlier by Shaffner and Klemer (1973) that it is the parental environment defined as both mother's and father's personality types that is most influential in the choice of a vocation especially for women.

Dewinne, Overton, and Schneider (1978) replicated Grandy and Stahmann's (1974) earlier study with a larger sample and

more stringent statistical measures. Essentially the findings from this more recent study supported both Holland's theory and the earlier findings of Grandy and Stahmann. Two thousand two hundred twenty-five freshmen were given a career choice questionnaire that requested biographical information on the student's occupational choice, as well as that of his parents. Occupations were classified again using Holland's codes. Specific findings reported a strong paternal influence on the occupational choices for both sons and daughters. The mother-daughter relationship was unclear in this study. It was hypothesized that paternal influence may be greater on college-bound daughters, whereas maternal personality types may have a stronger influence on non-college bound daughters. These and other studies to be cited shortly point out the difficulty in applying the results of traditional vocational theories to females.

Davis (1965) studied 127,125 college freshmen grouped by father's occupation, and postulated that children's career choices will be influenced by the various types of parental achievements, that is sons and daughters will excel in those particular skills that a father uses in his occupation. His findings supported the hypothesis that sons and daughters were influenced in their career choices by their father's achievements or skills. It was concluded that fathers di-

rectly or indirectly encourage their sons to develop specific skills that the father has acquired, and may also discourage those skills he has not developed. The relationship between fathers and daughters is not as clear or as direct.

Goodale and Hall (1976) investigated the possibility that student's work values and parental influences serve as a mediator in the relationship between social origin and plans for college and career. Four hundred thirty-seven high school sophomores were studied by means of a questionnaire that included information on levels of parents' occupational and educational attainment, parental aspirations for children's education, and on the students' plans for college and/or a career. The findings indicated that students with differing educational plans perceived marked differences in their parents' background and attitudes. Students with college plans perceived more parental interest in their school work than those who did not plan to continue their education beyond high school. Correlations between parents' education and occupation and students' college plans were positive and significant. In addition, the levels of parental education and occupational attainments were similar.

The general findings from the Goodale and Hall study were that parental interest and hopes for college were more influential in shaping a student's college/career aspirations

than either parental involvement and pressure or the students own work values. For females, however, parental interest and socio-economic background were of less importance. Females' career plans appeared to be less dependent on their parents aspirations and more dependent on their own; they were less likely to learn career values and attainments from their parents than boys. Here again the difficulty in applying general vocational theories to females is exemplified. Findings for males will in most cases support the hypotheses generated by these theories, but for females the factors are more indirect and less observable. Overall, the findings of Goodale and Hall support the earlier hypothesis of Shaffner and Klemmer (1973), Holland (1973), Davis (1965), and DeWinne, et al. (1978) that parents serve as the role models to which students refer when making college and career plans.

Brunkan (1966) studied the influences of parental attitudes toward their children and the child's identification with his parents as factors relating to career choice. It was hypothesized that a high degree of father identification would accompany problems of vocational indecision, whereas a moderate degree would be associated with no problems in career choice. Subjects were 289 undergraduate males who were administered several instruments measuring parental identi-

fication, parental attitudes, and problems in vocational choice. The results did not support the hypothesis; identification scores did not differentiate between the two groups. It was concluded that the reverse of the hypothesis may, however, be true; that is, if individuals do not identify sufficiently with their parents to gain an adequate concept of themselves in an occupational role, they will be undecided in their vocational choice. Implications for further research on the role of parental identification and attitudes as potential variables in the career choices of offspring have been indicated again; the need to expand this type of research to include females was also noted.

In general, research findings support the notion that parental factors have a strong influence on the vocational choices of their children. Punch and Sheridan (1978) examined the relationship between references groups and vocational aspirations of secondary school students. The most important variable accounting for 56% of the variance in vocational aspirations was parental expectations; 28% of the variance in educational aspiration was also accounted for by parental aspirations. Teacher expectations accounted for the second greatest amount of the variance. Sex differences were apparent in the expectations of parents for their male and female offspring. Parents who are aware of their chil-

dren's mental abilities expected more of their sons than of their daughters, whereas teachers expected equal performance from both. Parental expectations were found to be a significant intervening variable between social class, mental ability, and home environment, and the dependent variable of career aspirations. The relationship was stronger for males, and implies that the process is more complicated, and the range of variables wider, for females.

For females there was a direct relationship between social mobility and mate selection. Typically the family's status, social class, prestige, and income were determined by the husband's occupation. Choosing a career may influence a female's mate selection, and therefore her ability to be socially mobile.

Females measure the attractiveness of occupations on the basis of their own rating of the occupation, their perception of how eligible males rate the occupation, and their perception of how eligible males rate females engaged in such occupations. A female's field of possible mates can be expanded or limited by her career choice.

Another factor influencing the female's vocational choice was whether or not her mother worked, the type of work she did, its temporal status (i.e., permanent, continuous, interrupted, etc.), and the reasons for it: career development,

money, or as a diversion to get her out of the house. A theory of vocational choice for women must take the unique operation of these factors into account before it can develop generalizations to account for career choices in females (Punch and Sheridan, 1978; Psathas, 1968).

The relationship of parental education, maternal work, and maternal occupational status to the occupational aspirations of adolescent females was studied by Burlin (1976). There was an attempt to further investigate the relationship between types of career choices (traditional vs. non-traditional) of females and the degree of identification they had with their mothers. The study was conducted on 149 female juniors in high school. Data were obtained from questionnaires dealing with career aspirations, ideal and real, and demographic information. The results of the study suggested that socioeconomic level, generally indicated by the father's education, was a good indicator of real occupational choice, whereas the influence of the mother as a role model is important but varies depending on other factors. The fact that the mother works is not sufficient reason for the daughter to aspire toward a moderate or innovative, i.e. non-traditional, career. What is important is that the mother herself works in this type of occupation; if she does, then she appears to be the role model for her daugh-

ter. However, as this study and the aforementioned studies have demonstrated, occupational choice in women is influenced by a cluster of variables, some of which have yet to be investigated.

### Parental/Societal and Other Influences on the Career Choices of Women

Many factors impact upon the female throughout the life span. The influence of parents, siblings, peers, other significant others, sex role stereotypes during her early development, occupational opportunities and discrimination, and the presence or absence of a spouse and children in maturity will determine to a large extent her particular pattern of career development, choice, and participation. This section deals with the impact of these and other variables on women's career development.

It has been recognized that parents provide the most powerful influence on all aspects of their daughter's growth (Sorenson and Winters, 1975). That they also affect her career development should be obvious, and has been documented in numerous studies (Tenzer, 1977; Huth, 1978; Crawford, 1979). What is not obvious, however, is the effect of these factors and how they impact upon the daughter's career development.

Guttmacher (1979) studied the effect of family influences on the career salience of upwardly mobile college women. Her subject population was a random sample of 271 women from a state college in Massachusetts, who represented all four college class levels and majors. Career salience was found to be positively related to the parents' ideological support for women working outside the home, and to the mother's, father's, and daughter's positive attitude toward the actual employment of the mother. Factors that were negatively related to daughter's career salience were the importance placed on sex-stereotyped role performance and family enhancement roles, and the degree of closeness to and amount of influence of the parents, especially the mother on the daughter.

Guttmacher hypothesized that the career salience aspect of these women was either an attempt to compensate for conflictual family experiences, or a result of a need to disassociate themselves from their parents. In either case, the career appears to compensate for the lack of closeness experienced within the family of origin. Some support for these hypotheses was found. Lower status, upwardly mobile women could not use their parents as adequate career models, since they could not provide the actual behaviors to serve as models nor the instrumental support necessary for the im-

plementation of career aspirations. It was proposed then that teachers and male peers filled this gap. The findings supported these propositions.

Strongly career salient women were more likely to choose a teacher as someone they most admired. They were more independent and socially isolated, felt less close to their parents and less influenced by them, dated less, but had special male friends who shared their views about male and female roles. In addition, they perceived themselves as comfortable with their choices and not alienated from their parents.

Guttmacher concluded that parents generally have a conservative effect upon the career development of their daughters, emphasizing family roles at the expense of career roles. Women who displayed a commitment to a career appeared to have been the result of differential socialization patterns in the home. The mothers of these women often worked outside the home and enjoyed it, there was strong support for the daughter's education and career aspirations, and, there was less importance attached to family roles and less closeness among family members. This last factor was in turn compensated for by the role models and support provided by teachers and male peers.

Bielby (1978) studied the effects of maternal employment and socio-economic status on their daughter's career salience. Using National Opinion Research Center data in an eight-year longitudinal study of white, college-educated women, she concluded that maternal employment is ultimately a positive influence on daughters, but the impact of this becomes latent at some point immediately prior to or just following college graduation, until childbearing is completed. It appears that the influence of spouse and children have more of an effect during this period than their mother's involvement in the labor force.

It may be that the perceived costs of combining career and family roles are too high at this point, and career aspiration and attainment are delayed until later. Berson (1977) attempted to clarify the decision-making process involved in this choice, and found little difference in the values concerning childrearing, independence, socializing, and self-worth among two groups of women: married with at least one child, and single. What did emerge was a difference in the desire to fill the traditional female role, in the willingness to sacrifice leisure time for the autonomy need, and in the personal histories and socialization patterns of these two groups. Women who were willing to combine both career and family roles, usually had mothers who

worked, and their mother's friends worked, as well as the mothers of their childhood friends. The fathers of the women (their mother's husbands) were supportive of their careers, and these women today tended to have friends who worked. It may be that due to these family history and socialization patterns the women were more aware of what their choice required, recognized the advantages and disadvantages, and had more information on which to make a decision.

Parents also tend to influence specific academic behaviors in their children; influences were felt in their children's preference for vocational programs versus academic programs and mathematical courses. Parsons (1979) found a sex difference in parental expectations and perceptions of math achievement in sons and daughters, despite similarity in performance. Although parents do not rate their daughters' abilities any lower than their sons', they do believe it is more difficult for their daughters, that they must try harder, and that math competency is more important for sons. These parental perceptions are related to the child's expectancies, values, and self-concepts. And these perceptions have more influence on course plans than the child's actual mathematical performance. Vetter, Sechler, Lowry, and Canora (1979) found that parents were the most important people involved in the female's decision to enroll in a non-tradi-

tional program of study. Their influence was felt on two fronts: in sex role stereotyping, and in the actual choice of a career. Peers, teachers, and counselors also contribute to this decision, but to a lesser extent than parents. The most influential enrollment factors found by Vetter, et al. were interest and ability. However these factors are themselves affected by the attitudes, practices, and sex-role typing of families, school personnel, and the educational materials used by the student. Vetter, et al. made several recommendations to increase the enrollment of women in non-traditional fields. They included informing parents, students, and the community of the reasons for students to consider new career alternatives; informing counselors at junior high school and other schools of non-traditional training options; using career related materials that are sex fair; giving non-stereotyped views on courses and activities; and, changing the names of sex stereotyped courses (e.g., cooking to food production and management).

The variable of sex was studied as a determinant of vocational choice (Indiana State Board of Vocational and Technical Education, 1977) in an attempt to assess the incongruities between responses in a group of high school juniors and seniors. Students listed five factors that influenced their choice of a traditional career. These included: experience,

personal interests, exposure to role models in the field, economics, and peer or relative influence. Forty-one percent denied that sex stereotyping influenced their choices, and only 23% said that it limited their options. Females choosing traditional fields claimed preference for that field, parental influences, the amount of work required for the non-traditional field, and the incompatibility between non-traditional fields and the role of wife and mother as reasons for their choice.

However, for females choosing non-traditional fields, only three factors were of importance: siblings, relatives or older friends, and their own interests. Students choosing non-traditional fields expressed the notion that this behavior was more acceptable for the female than for the male, since the male must preserve his masculinity and choosing non-traditional, "female" jobs almost always meant lower pay and status.

Another interesting finding was that females choosing non-traditional careers almost always chose those requiring four years or more of college; very few chose non-traditional careers requiring vocational-technical training (Indiana State Board of Vocational and Technical Education). This lends further support to Vetter, et al.'s (1979) thesis that despite an increase in the number of women in non-tradition-

al occupations, sex-role stereotyping, sex segregation, and wage disparity still exist, and in turn influence, the number of women entering non-traditional vocational education programs and careers. As the Indiana State Board study demonstrated, of those most affected by sex role stereotypes (80% choosing traditional careers), only 23% felt that it limited their options in any way. Of the secondary school students studied by Church in 1974, sex-role stereotyping became evident in the career choices of the female students. Although few girls chose housewife as the major and only career objective, most considered only those occupations that were traditionally female and compatible with the housewife role.

The acquisition of stereotyped occupational aspirations was investigated by Klemmack and Edwards (1973) and was found to be related to several background and current variables. Fathers' occupational status as mediated by dating status and present age, affected the perception of ideal age at marriage, and thereby influenced occupational choice. Neither mother's nor father's educational attainment appeared to be directly related to occupational choice. The findings revealed that anticipated family size was a critical value that distinguished between feminine (traditional) or non-feminine (non-traditional) career choices. It did

not, however, differentiate between those who chose a work role and those who chose a housewife role. It appeared that present age was the most powerful predictor since it also influenced dating status and ideal marriage age. The general conclusion drawn from the data was that family size, mother's work, and father's occupation were related to occupational aspirations, but were mediated by current and anticipated social relationships (marriage, number of children desired) that are of special importance to women in our society. The anticipation of these social relationships represent the pivotal factor in the acquisition of occupational aspirations in females. In contrast, for the male these factors are of minimal importance.

Using social learning theory as a basis, investigators have studied the effect of the mother as a role model for her daughter's occupational choice. Sorensen and Winters (1975) proposed that through the developmental process of identification, the daughter copies her mother's role behavior or concepts. The mother's traditional or non-traditional attitudes will influence her daughter's vocational behavior. If the model portrays stereotyped feminine characteristics in her career choices and attitudes, then a limited career interest, one that is either traditional, or non-existent will develop. Burlin (1976), Almquist and Ang-

rist (1970), and Huth (1978) found that mother's education, work status, and type of work were powerful influences in the career choices of their daughters. Other studies have found that it is not so much the mere fact that the mother worked that influences her daughter's decision to work or not, but the work orientation or attitude of the mother, the model, that is the decisive factor (Almquist and Angrist, 1970; Burlin, 1976). Career oriented mothers provided their daughters not only with role models who illustrated the successful combination of family and career, but also with alternatives to traditional female roles and a more realistic view of the advantages and disadvantages of such a position. Perhaps, as an earlier study (Berson, 1977) indicated, armed with this information, the daughters are better able to make a realistic decision. In addition, the presence of a positive role model that works and values her career is a powerful influence on the daughter's selection of a role.

There appears to be a relationship between the maternal vocational role model and the career salience, or degree of commitment to a career, of her daughter (Sorensen and Winters). This relationship is mediated, however, by socioeconomic level, the mother's work history, work orientation and role conflict, and the degree of support or non-support provided by the father for the mother's employment.

The effect of paternal influence on women's career choice is even more difficult to assess. Distinguishing the effects of paternal influence from that of socioeconomic status is a difficult task, and this has produced somewhat confusing results. The relationship between girl's parental identifications and vocational factors was investigated by Sostek (1963) with the following results: girls identifying more with their mothers chose feminine occupations; those identifying more with their fathers chose more masculine or non-traditional occupations.

Despite the confusing and often contradictory findings of studies that either fail to isolate socioeconomic status from other factors, or inconsistently define their terms, the overall conclusion is that higher socioeconomic status (SES) is more conducive to non-traditional career orientation (Sorensen and Winters, 1975). High SES parents are more likely and more able to finance their daughter's educational experience and to inculcate their values of high achievement in their daughters. Females from high SES families showed more variation in career choice than females from low SES families. Perhaps this was due to the lack of financial pressure to choose a job or work in contrast to the presence of a financial need to work for the lower SES group.

Other influences on female career choices have also been studied, among them the influence of other family members (Crawford, 1978), childrearing practices and teachers, peers, and men (Vetter, et al., 1979). Sibling configuration and interaction was found to be a significant factor contributing to the career orientation of women (Crawford). Specifically, he found that non-traditional career oriented women tended to have an adjacent male sibling to a greater degree than traditionally career oriented women.

The influence of childrearing practices on the later career choices of female children was studied by Kacerguis and Adams (1979). They contended that the initial mother-child interaction and early socialization patterns of mothers and daughters limited their assertiveness, autonomy, and independence. These factors, along with a need for social approval, which is more apparent in young girls in lieu of the pride in competence seen in males, limit a woman's perspective of her career options. Playthings and activities that stress quiet, stationary play, rather than active, independent exploration also restrict the female. Role models at home, at school, and in the media, as well as adult-child interactions tend to channel females into different occupational directions than they do males.

Thus the female begins from a somewhat constricted vantage point, and if her educational and experiential horizons are not broadened, she appears doomed to a limited perception of her own abilities as well as educational and career options available to her (Karcerguis and Adams). Many factors affect the female's career development: sex role stereotyping, socioeconomic status, mother's education, work history and status, father's attitude toward employed women, school personnel, peers, and special men friends. These factors can either limit or broaden the female's awareness and cause her to lower or raise her educational and career aspirations (Almquist, 1974; Vetter, et al., 1979).

#### **Traditional vs. Non-Traditional Career Choice in Women**

What factors are related to the choice of a non-traditional career for women? Do these factors differ in women choosing traditional careers?

As in other aspects of female career development and choice, the answers are not clear cut. Factors that appear relevant in one study often do not achieve distinction in another. This section will describe briefly some of the recent work in this area, and attempt to clarify some of the ambiguities.

One of the few longitudinal investigations of this problem was conducted by Almqvist and Angrist (1970) and focused on the career planning activities of women who chose non-traditional, male-dominated occupations. The subjects were 110 female students, who were followed for four years. Two hypotheses were tested, the deviance hypothesis and the enrichment hypothesis. The deviance hypothesis proposes that an explanation for non-traditional career choice for women lies in their deviance from traditional norms and attitudes. It was assumed that non-traditional women enjoyed domestic tasks and child care less, had less and more distant parental relations, and dated less frequently than females choosing traditional careers. In short, they were more like men in their preference for and evaluation of activities and occupations. The enrichment hypothesis on the other hand, stresses the influence of role models and their expansive effect on the individual. Successful workers in a particular field serve as role models for these women; it matters little if the model is male or female, for the female to consider it as a potential career option. If the girl's mother works, she provides another close and viable role model as well as an alternative model to the typical role of women. Occupational attitudes and values as well as experience are often gained through part-time or summer employ-

ment. If these jobs were more masculine in nature, the female would be more likely to choose a non-traditional career for herself.

The results of the Almqvist and Angrist study provided support for the enrichment hypothesis. Two-thirds of the non-traditional women had working mothers. These women also attributed their vocational choice to extended contact with non-traditional role models, women as well as men, and to the amount and type of previous work experience that was clearly related to their present occupational choice. The data did not support the deviance hypothesis in that there were no significant differences between traditionals and non-traditionals on closeness of family ties, need for social interaction, nor frequency of dating activities. In general mother's education and employment appeared to be directly related to the salience and non-traditional nature of her daughter's career choice. Non-traditional females were not deviant, nor had they engaged in more masculine tasks or activities while growing up than traditional females (Tenzer, 1977; Almqvist and Angrist). Non-traditional females did not appear to identify more with their fathers than their mothers; in fact, both traditionals and non-traditionals identified with their mothers (Tenzer). This latter finding contradicts a study quoted earlier by Sostek (1963)

who found that females in non-traditional occupations identified more with their fathers. As mentioned previously, the factors involved and their effect on career development are not clear cut and require further investigation. The inclusion of a few more studies may shed some light on this problem.

Kane and Frazee (1978) studied the differences between women who selected traditional and non-traditional vocational/education programs. The results indicated that women who are predisposed to choosing a non-traditional career are pressured to choose an academic or professional occupation rather than a vocational one. The two characteristics that differentiated between the groups in this nationwide survey of secondary school women were that non-traditionals tended to be from metropolitan areas and have a higher proportion of minority membership. They cited interest as the single most powerful influence in their choice, and ability as second. Interestingly, earnings were not as critical a factor for non-traditionals as they were for traditionals. Parents were cited as the most influential people, providing support and encouragement, by the non-traditionals, and teachers and counselors were described as more influential by the traditionals.

In a continuation of this research, Kane and Frazee (1978) studied over 3,000 females enrolled in vocational/technical schools in 36 states. The degree of influence of significant others on the decision-making process differed between traditional and non-traditional students. Mothers were listed as the most influential person in the students' selection of a vocation. But traditionals selected their mothers one and one-half times more often than the non-traditionals. Mother's influence appeared to vary with her educational level. The higher her level of education the more influence she had on non-traditional daughters, and the less influence on her traditional daughter. Working mothers tended to have more influence on both groups than non-working mothers, and mothers employed in clerical positions were more influential in both groups than either semi-skilled or service workers.

Fathers' influence varied with his occupation, income, and education, but appeared to affect the traditionals more than the non-traditionals. School personnel did not appear to influence either group, with over 50% of the non-traditionals denying the influence of either teachers or counselors. Kane and Frazee viewed this last finding with alarm, and made several recommendations to school personnel so that their effectiveness and impact could be increased.

Family background variables which included mother's and father's education and occupations, were investigated by Peng and Jaffe (1979) as they related to female choice of non-traditional fields of study in higher education. The results indicated that neither parent's education was directly related to female's entry into traditionally male dominated fields, but that parent's education was positively related to women's enrollment in high school academic or college preparatory programs which stress math and science, which in turn is related to higher test scores, higher educational plans, and females' entry into male dominated fields.

In order to identify any familial and occupational attitudinal differences between traditional and non-traditional college women, Wilson (1977) studied 225 college age women representing all four college classes and ranging in age from 19 to 25. The traditional women tended to be older and more often upper classmen. There was no significant difference in the educational level of parents between those two groups. However, the time of career choice distinguished between these two groups; traditionals made their decision in grammar school, while being socialized and stereotyped into normative roles; the non-traditionals made their choices between high school and college when they were ex-

posed to greater career opportunities and became aware of the changing role of women.

Although both groups intended to marry, and evinced no career/family conflict, non-traditionals found domestic activities and childrearing much less fulfilling (47%) than traditionals (71%). Non-traditionals also planned to marry later and have fewer children. Mother's influence was more dominant in the career choices of the traditional daughters, whereas fathers were more influential with non-traditional daughters. Overall there was no difference in self-esteem, career dedication, desire to help others (believed to be a traditionally female trait), or overall family influence between the two groups.

The relationship of parental reinforcement, modeling, and the need for achievement and affiliation to the type of graduate program enrollment was investigated by Lyons (1977). Females in non-traditional graduate programs were more likely to have received parental reinforcement for achievement and academic and career goals than females enrolled in traditional graduate programs. In addition, non-traditionals were likely to receive the bulk of this reinforcement and support from their fathers, while mothers served as a secondary reinforcing agent. Traditionals received considerably less reinforcement for achievement from mothers as well as fathers.

Father's education effectively distinguished between the two groups. Fathers of non-traditionals had achieved significantly higher levels of education than fathers of traditionals. In addition, fathers of non-traditionals were more likely to hold professional or managerial positions than fathers of traditionals, and thus were more likely to serve as effective role models. Mother's employment and education appeared to be less of a distinguishing factor, although many non-traditionals modeled their careers to some extent after their mother's. This effect was not apparent for the traditionals who did not model their careers after either of their parents.

There was little difference in the need for achievement between the two groups, and scores for the affiliation need were comparable. Thus the distinguishing factors appeared to be the occupational and educational level of the father, parental reinforcement for academic and career goals, and particularly the parental reinforcement for achievement. These factors were reflected in the overall parental values for achievement which were translated into actual behavior and attitudes that serve as models and reinforcers for the daughter.

To summarize this somewhat ambiguous and contradictory set of results is a difficult task. Suffice it to say that

parents serve as role models for their daughters, that successful, rewarding role models are more effective, and that both mothers and fathers serve this function. The extent of their influence varies from study to study depending on the age, education, and occupational level of the group studied, on the questions asked, the theoretical model used, and the hypotheses tested.

### The Re-entry Woman

This final section, albeit brief, reviews some of the recent literature on the subject of re-entry women. Unfortunately information regarding familial and parental antecedents is not presently available. Thus this review deals with the specific characteristics and needs of this group.

Tittle and Denker (1977) did an extensive review of the literature on re-entry women and covered such topics as the educational process, interest measurement, and career choice. National college enrollment data indicated an increase of 30% in total female college student population from 1970 to 1974 (U.S. Bureau of the Census, 1975). From 1972-1974 there was also a 30% increase in the number of persons over 35 years of age attending college. The absolute number of these women over 35 who enrolled in higher education exceeded that of men. Overall, the greatest pro-

portional increase is among women 25-34, whose numbers increased 108% in the period 1970-1974. According to Tittle and Denker, the typical re-entry woman is between 25 and 64, although some studies describe her as 36, and others as 43 (Astin, 1976; DeWolf and Lunneborg, 1972), married, and with one to four children. She is usually middle class, well educated, and economically comfortable (Brooks, 1976), and offers as her main reason for re-entry a desire to get a degree. Surveys indicate that the "mature" or re-entry woman is a good student with over 63% maintaining a B average (Tittle and Denker).

There are a number of difficulties for the re-entry woman as she faces a variety of institutional barriers, personal problems, and familial conflicts. Institutional barriers include irrelevant admissions procedures (Brandenburg, 1974) that often require outdated transcripts and test scores, the predictive validity of which should be questioned. In addition, financial aid is often unavailable to these women. Family demands and financial commitments often make it impossible to attend full-time, and because they are part-time enrollees they are ineligible for financial aid. Oftentimes this group is also excluded from receiving financial assistance because of their husband's income, even if the husband is not providing any financial assistance. Child care also

looms large as a problem, since few college programs provide college sponsored or college supported day-care to their students. Without adequate day-care few women can afford the luxury of full-time attendance.

Brook's (1976) study of re-entry women in a college counseling program revealed that many of these women lacked the skills necessary to achieve and the self confidence to try. Many re-entry women need to learn or re-learn basic study skills, note-taking, and time-management techniques (Brandenburg, 1974; Brooks). Many lack the self-confidence and social skills to assert themselves and make a decision. So many of these women have been dependent on first their parents and then their husbands for their decisions, that they find it difficult and sometimes frightening to decide for themselves what action to take (Brandenburg).

To complicate matters further, many re-entry women are experiencing a role conflict (Brooks, Brandenburg, Tittle and Denker, 1977) and are searching for a new identity. At the same time they are experiencing guilt over leaving their family responsibilities and seeking their own self-fulfillment. This is often further exacerbated by the resistance, resentment, and hostility from family and friends who may feel threatened by or envious of the re-entry woman's new life style. Roach (1976) described this conflict in her ar-

ticle on the rewards and risks of re-entering the realm of higher education. Some of these risks involve: the changing self-concept of the re-entry woman as she tries and succeeds in her new endeavor; her family's reaction to her changing self-image; the feelings of loss they may experience as they perceive a reduction in their importance to her; and the resentment and hostility engendered by this perception. Roach suggested various techniques that could be implemented by university counseling services in order to assist the re-entry woman to reduce the stress and re-establish a balance within the home and among her various roles.

Theories regarding female career development are still in their early stages and applications of them to this particular group of women would be too broad a jump. Tittle and Denker (1977) believed that the influence of sex-role socialization on women's career decision-making is still not explicitly defined, and that until these factors are better understood, theories of women's career choices will not develop very rapidly. Counselors, educators, and women themselves have a limited comprehension of the effects of marriage, parenthood, spousal attitudes, and parental influences on the career choices of women; until these factors are better understood, Tittle and Denker believe the theories pertaining to female career choices will remain in their infancy.

### Summary

Much has been written, hypothesized, and proposed about the factors that influence career choice in women. It is clear that early socialization patterns are important factors, but what is not clear is the effect of these patterns. Do successful working mothers provide more effective role models, or are highly educated, professional fathers more effective regardless of what educational or occupational level the mother has attained? Do factors that influence career oriented women affect traditional and non-traditional women in the same way? Are familial influences important up to a point and then do they become latent until childrearing is concluded?

Although a great deal has been written on the subject, no definite answers nor completely appropriate theoretical framework is available at the present time. What is available is a great deal of research that provides us with some insight into the problem, but more importantly with a greater awareness of the tremendous amount of research that still needs to be done.

## METHODOLOGY

### Sampling Procedure

Three groups were studied. The Virginia Tech Student Directory was used to select the college age sample because:

1. The directory listed students as well as majors.
2. The directory listed names and addresses of all students with telephones, thereby facilitating the sampling and follow-up procedures.
3. The registrar's office (1980) estimated that only three to five percent of the student population did not have phones, thus the use of the directory proved to be both an effective and efficient means of gathering a representative sample.

The names of sixty undergraduate college age females enrolled in traditional programs of study (CAT), and sixty undergraduate college age females enrolled in non-traditional programs of study (CANT) at Virginia Polytechnic Institute and State University were randomly selected from the Virginia Tech Student Directory. Each of these females was surveyed by mail and requested by letter to complete the questionnaire Career Choices. They were also provided with a

pre-addressed, postage-paid envelope for the return of the questionnaire. The determination of group membership was based on the traditionality of the selected major. That is, majors in which 60% or more of the enrollees were female were termed traditional; those in which 60% or more of the enrollees were male were termed non-traditional.

College-age women were chosen to contrast with re-entry women based on the following rationale. According to the theories of Super (1957) and Ginzberg (1951), college age women are at a stage of career development where their career plans and goals are at least tentatively formed, i.e. the exploration stage, substage transition (Super), or the realistic period, substage exploration or crystallization (Ginzberg, 1951, 1952, 1972). It was also assumed, for purposes of this study, that due to their failure to make a committed career choice and to work toward their goal in the past, the re-entry women were also at this exploratory or transitional stage of career development, and were therefore comparable in this respect to the college age females. Brooks (1976) has found that 66% of re-entry women have returned to school to pursue a degree, a goal not unlike that of their college age counterparts. This evidence lent further support to the assumption that re-entry women are also at a stage of tentative career planning, and are there-

fore suitable for comparison on the measures designed for this study.

The names of fifty re-entry women were solicited through newspaper advertisements, bulletins, local organizations, notices, and word of mouth. Re-entry women (REW) were defined as females 28 years of age or older, who had been out of school (high school, college, university, or vocational/technical school) for five years or more, and who are currently enrolled in higher education at Virginia Polytechnic Institute and State University. The questionnaire, Career Choices, the cover letter, and a stamped, pre-addressed envelope were mailed to each of the re-entry women. The instructions to their group were the same as those given to the college age group: to complete the questionnaire at their earliest convenience and return it to the author in the envelope provided.

The sampling procedure was as follows: 60 females were randomly chosen as traditional college age; 60 were randomly chosen as non-traditional college age; and 50 females, designated as re-entry, volunteered to participate. In order that confidentiality be maintained, all respondents were assigned an identification number prior to the initial mailing and follow-up. This number delineated group membership and order in the group. When the questionnaires were returned,

there were 41 respondents from the traditional group (CAT), 37 respondents from the non-traditional group (CANT), and 27 respondents from the re-entry group.

Attempts were made to reach all the non-respondents by phone and postcard; of the 23 non-respondents in the CANT group, 11 refused to answer the questions, 8 questionnaires were returned by the postal service, and four were ineligible due to discontinuance of their education. There were 19 non-respondents in the CAT group. Six respondents were ineligible due to age or sex (several female-appearing names were actually male), ten refused to respond, and three were unable to be reached. For the 13 non-respondents in the REW group, 3 questionnaires were returned by the postal service, 5 declined to participate, and 5 did not feel that they could contribute to the investigation.

The telephone follow-up was conducted two weeks after the initial mailing, and follow-up postcards were sent one week after that to all groups. The response rate at this time was 68.2% for the CAT group, 61.6% for the CANT group, and 54% for the REW group. Differences in the demographic background between respondents and non-respondents were investigated by means of telephone contact two weeks after all the data had been collected. Visual inspections and Chi-square analyses with an N of ten were performed on the data from

five respondents and five non-respondents who were randomly selected from each group. Using the variables of age, marital status, and traditionality of major, no significant differences were found between the respondents and non-respondents in each group. In addition, differences in religion and race were also examined revealing no differences between the groups. The major reasons given for not completing the questionnaire were: "too busy", "I lost it", or "the questions were too personal", in specific reference to the questions on parental income.

The original sample contained 170 females. One-hundred and five responded to the questionnaire. In the final analysis, however, only 72 cases were available for data analysis. Thirty-three questionnaires could not be used because the respondents failed to complete them. Thus the final response rate for each group was as follows: CANT - 40%, CAT - 48.3%, and REW - 38%. It was the data from these respondents on which the statistical analyses were performed.

### Variables Studied

The criterion variable

Career Choice The criterion variable was defined as the selection of a vocation or occupation by the respondent (operationally defined as the answer to question 28 on the

questionnaire). Career choice was further differentiated into traditional and non-traditional. Traditional was defined as those occupations in which 60% or more of the participants are female, such as nursing and clerical work, and non-traditional which are those occupations in which 60% or more of the participants are male, such as medicine, architecture, and engineering.

#### The predictor variables

Group Membership Three groups were studied: college age females enrolled in a traditional program of study (CAT), college age females enrolled in a non-traditional program of study (CANT) and re-entry women (REW).

Parental attitudes were defined as those stances, beliefs, or values held by the parents and perceived by their female children, regarding females' academic and career achievements and aspirations, the employment of women in general, and the employment of their mothers specifically. They were measured by means of Likert-Type scale items devised specifically for this purpose, and were defined as items 59 through 76 on the questionnaire. This scale was further divided into maternal and paternal subscales.

Parental reinforcement patterns were defined as those actions which were potentially rewarding and which increased the likelihood of an event occurring. They were subdivided

into maternal and paternal scales and were further defined by items 29 through 58 of the Parental Reinforcement Scales (Lyons, 1977).

Parental modeling was defined by items 18 through 27, that concern father's education, occupation, salary, and pattern of employment, and mother's education, occupation, salary, and pattern of employment. They comprised the subscales for maternal and paternal modeling. These items were taken from the scales devised by Lyons to assess the effect of parental modeling on their daughter's career choice.

#### The Instrument

Lyons devised a scale to assess parental reinforcement for academic and career goals and a data form to ascertain the effects of parental modeling. The first part consists of a Likert-type scale consisting of fifteen items designed to measure paternal reinforcement patterns and 15 items to assess maternal reinforcement patterns. Responses are scored on a seven-point continuum which range from "disagree very strongly" to "agree very strongly." Lyons reports a test-retest reliability coefficient of .95 for the combined scales, and .93 for each individual scale. These coefficients were obtained by administering the scale to 18 graduate education students at two-week intervals. Due to the

fact that no external criteria were available to validate the scales, content validity was assumed based on the judgment of psychologists and measurement specialists. These professionals concurred that the scales appeared to adequately assess parental reinforcement patterns for academic and occupational achievement. A second scale, The Demographic Data Form, was also devised by Lyons to ascertain students' academic program, parents' occupation and education, as well as other background information. These two scales were combined to assess the variables of parental modeling and parental reinforcement. The author was able to secure permission from Lyons to use the Parental Reinforcement and Modeling Scales.

In order to assess parental attitudes regarding female career and academic achievements and aspirations, female employment and the specific employment of the mother, items were developed by the author modeled after the parental reinforcement scales of Lyons. A seven-point Likert-type scale was used to maintain continuity throughout the questionnaire. The items directly examined the daughter's perceptions of her parents' attitudes toward the previously defined events. The options on the seven-point continuum were identical to those used on the earlier scales.

A pilot study with the first draft of the parental attitude scale was conducted with a small sample of traditional college age women. Responses and comments were solicited by the investigator regarding the form of the questionnaire, the questions themselves, and the clarity of the items. The responses were utilized in further refinements of the instrument.

A test-retest reliability procedure was performed on both the attitude and reinforcement scales. Items 36-76 were administered to 26 undergraduate females at two-week intervals. The reliability coefficients were as follows: paternal reinforcement scale .6427; maternal reinforcement scale .4598; maternal attitude scale .4872; and paternal attitude scale .4471. The coefficients for the combined reinforcement scales, and for the combined attitude scales were .5312 and .46716 respectively.

Since no external criteria were available to validate the attitude scales, the judgment of three vocational and measurement specialists was relied upon to assess the validity of the instrument. It was the opinion of these judges that the parental attitude scale accurately assessed parental attitudes regarding female academic and career achievements, female employment, and the employment of the respondents' mothers.

All the scales were combined for purposes of this study, to form one questionnaire, Career Choices. This questionnaire was nine pages long, contained 76 questions, and took approximately fifteen to twenty minutes to complete. (See Appendix B).

### Research Questions

The general research question was concerned with the impact of parental influence, as defined by the predictor variables of parental modeling, reinforcement patterns, and attitudes, on the eventual career choice of their female children. Specifically the investigator examined the impact of the parental factors on group membership and career choice. Which factors had the greatest impact on career choice? How did group membership affect career choice? Did parental influences differ in their impact across the three groups? And what effect did maternal modeling have on their daughters' group membership and career choice?

### Hypotheses

1. Career choices will vary independently of parental factors: modeling, reinforcement, and attitudes.
2. Career choices will vary independently of parental factors controlling for group membership.

3. The influence of parental factors will vary independently of group membership.

### Analysis

Due to the nature of the data, certain changes and coding operations were necessary before the analyses could be performed. Each scaled item was summed across the 72 respondents. This yielded a total score for each item. These scores were then added together to provide a subscale score for each of the six variables. Thus parental reinforcement was subdivided into maternal and paternal reinforcement; parental attitudes into maternal and paternal attitudes; and parental modeling into maternal and paternal modeling. Only subscale scores were used in the analyses. Because certain items of the parental modeling variable were not truly measured by scales, the scores could not be summed and used in the regression analysis. These items had to be omitted. What remained were items 23, 25, and 27 of the maternal modeling subscale, and items 18, 20, and 22 of the paternal modeling scales. These items dealt with education and income levels and the work patterns of both parents. Questions 22 and 27 were further recoded into worked and not-worked options to simplify computations. No items were omitted from either the maternal or paternal reinforcement

scales. These variables were represented by items 29 through 43, and 44 through 58 respectively. Similarly all items were retained in the attitude scales, paternal attitudes being defined by items 59 through 68, and maternal attitudes by items 69 through 76.

An additional operation was necessary due to the categorical nature of one of the variables. Group membership, when used as a predictor variable in the regression equation, had to be dummy coded. That is, two vectors were generated and assigned a code, to identify group membership. The purpose of this procedure was to utilize the information on group membership in order to reduce errors of prediction, which could be made when this information was not used. Since categorical variables represent subjects that differ in type, and not in amount or degree as continuous variables do, it is necessary to assign these variables a code so that the information generated by knowledge of group membership would not be lost. Following these procedures the statistical analyses were performed.

The primary objective of the investigation was to explain the amount of variance in the criterion variable, career choice, that could be attributed to the predictor variables of parental modeling, parental reinforcement patterns, and parental attitudes. The second objective was to determine

the amount of variance in career choice that could be explained by group membership. The third goal was to explain the amount of variance in group membership that could be attributed to parental factors.

Multiple regression analyses were performed in order to explain the variation in the criterion variable using the most effective predictor variables. Career choice was regressed on the predictor variables of parental modeling, reinforcement patterns, and attitudes, using the subscale scores. In addition, stepwise solutions were performed to determine the contribution of each of the subscale variables to the criterion variable.

Next, career choice was regressed on the variables of group membership and the six subscale variables. This analysis was performed so that the effect of group membership on career choice could be examined, and so that the effect of the six parental subscale variables, controlling for group membership, could also be analyzed.

Thirdly, the differences among the three groups in terms of the six subscale variables were analyzed by means of six one-way analyses of variance and six Tukey multiple range tests. Each parental subscale variable served as a dependent variable and group membership as the independent variable in this case.

## RESULTS AND DISCUSSION

### Results

#### Description of Sample

The final sample on which the results were computed was composed of 24 females in the CANT group, 29 females in the CAT group, and 19 females in the REW group. (See Table 1). There were 72 complete cases. Missing or incomplete questionnaires caused the loss of 33 cases. The respondents ranged in age from 18 to 62. The college age females ranged in age from 18 to 27 and comprised 73.5% of the total sample; the remaining 26.4% included the re-entry women whose ages ranged from 28 to 62. Of the 72 respondents completing the question on race, all were white.

The greatest number of respondents were registered in the colleges of Arts and Sciences (22.2%), Business (21.2%), Home Economics (16.2%) and Education (15.2%). Major area of study was defined as traditional in 44.8% of the cases and non-traditional in 55.2% of the cases.

Questions regarding marital status and children revealed that: 65.8% of the persons sampled were single; 17.9% were currently married; 21.1% of the REW group were divorced;

TABLE 1  
Subjects by Group

Variable	Category	Number	Percentage
Group Membership	CANT	24	33.33
	CAT	29	40.28
	REW	19	26.39
Field of Study	Traditional	32	44.79
	Non-Traditional	40	55.21
Career Choice	Traditional	30	42.26
	Non-Traditional	42	57.73

there were no divorces in the CAT and CANT groups; 4.3% were currently engaged; and, 7.4% were either separated or widowed. (See Table 2). Only 18.0% of the entire sample had any children.

The class standings of the respondents were as follows: 9.1% - freshmen; 16.2% - sophomores; 21.2% - juniors; and, 26.3% - seniors. Ten and one-tenth percent of the respondents were currently enrolled in master's level programs, 10.1% in doctoral level programs, and 7.1% were unclassified.

The majority of the sample were Protestant (55.6%); there were 21.2% Catholics and 2.0% Jews. The largest proportion of the sample resided in either their own apartments (49.5%) or in residence halls (31.3%).

TABLE 2  
Sample Demographics

Item	Category	CANT Number/Percentage	CAT Number/Percentage	REW Number/Percentage
Marital Status of Respondents	Single	20/83.33	27/93.10	4/21.05
	Married	2/ 8.33	1/ 3.45	8/42.10
	Divorced	-	-	4/21.05
	Engaged	1/ 4.16	1/ 3.45	1/ 5.26
	Separated or Widowed	1/ 4.16	-	2/10.53
Maternal Work Patterns	Worked	3/12.50	2/ 6.89	2/10.53
	Did Not Work	21/87.50	27/93.10	17/89.47
Paternal Work Patterns	Worked	20/83.33	24/82.75	18/94.74
	Did Not Work	4/16.66	5/17.24	1/ 5.26

TABLE 2 continued

Item	Category	CANT Number/Percentage	CAT Number/Percentage	REW Number/Percentage
Maternal Occupational Status	Professional	6/25.00	12/41.38	6/31.58
	Clerical	11/45.83	9/31.03	2/10.53
	Service	-	1/ 3.45	-
	Farming	-	-	-
	Housewife	7/29.16	7/24.13	9/47.37
	Other	-	-	2/10.53
Paternal Occupational Status	Professional	20/83.33	23/79.31	13/68.42
	Clerical	1/ 4.16	3/10.34	2/10.53
	Service	1/ 4.16	1/ 3.45	1/ 5.26
	Farming	1/ 4.16	-	-
	Structural	1/ 4.16	1/ 3.45	2/10.53
	Unemployed	-	-	-
	Other	-	1/ 3.45	1/ 5.26

TABLE 2 continued

Item	Category	CANT Number/Percentage	CAT Number/Percentage	REW Number/Percentage
Maternal Income	30,000 and above	-	1/ 3.45	1/ 5.26
	25,000-29,999	-	-	1/ 5.26
	20,000-24,999	1/ 4.16	1/ 3.45	2/10.53
	15,000-19,999	3/12.50	3/10.34	1/ 5.26
	10,000-14,999	6/ 2.50	5/17.24	2/10.53
	5,000- 9,999	3/12.50	5/17.24	2/10.53
	less than 5,000	11/45.83	14/48.28	10/52.63
Paternal Income	30,000 and above	17/70.83	19/65.52	7/36.84
	25,000-29,999	3/12.50	4/13.79	-
	20,000-24,999	2/ 8.33	3/10.34	2/10.53
	15,000-19,999	1/ 4.16	1/ 3.45	4/21.05
	10,000-14,999	1/ 4.16	2/ 6.90	4/21.05
	5,000- 9,999	-	-	2/10.53
	less than 5,000	-	-	-

Note: The CANT group contained 24 respondents, the CAT group 29 respondents, and the REW group 19 respondents.

### Parental Factors

Frequency distributions were obtained from the data on parental modeling, parental reinforcement patterns and parental attitudes. All of the responses reflect the daughter's perceptions of her parents' behaviors, reinforcement patterns, and attitudes. A description of these findings will precede the multiple regression analysis and can be seen in Tables 2, 3, and 4.

#### Parental Modeling.

Generally the educational and occupational levels of the fathers were high, with 58.3% college graduates (four-year degree program) or above, and 77.1% holding professional positions. This is also reflected in the high income level of this group, over 57.7% earned \$30,000 a year or more. The work pattern of these fathers revealed the traditional male pattern, i.e. early entry, high participation, and uninterrupted (Zytowski, 1968), with 86.1% having always worked during the childhood and adolescence of the respondents.

In contrast to the paternal patterns, maternal educational and occupational levels were generally low. Only 32.0% of the mothers were college graduates or above and only 32.7% were employed in professional positions. The majority were either housewives (33.6%) or clerical workers (29.1%). Their lower educational and occupational statuses were re-

TABLE 3

## Daughter's Perceptions of Parental Reinforcement Patterns

Category	CANT	CAT Number/Percentage	REW
<u>Maternal</u>			
Good Grades in High School	23/95.83	26/89.66	18/94.74
Taking Challenging Courses	9/37.50	18/62.07	7/36.84
Favoring Raising a Family over a Career	6/25.00	5/17.24	7/36.84
Limit Education	2/ 8.33	2/ 6.90	4/21.05
Pursuing Non-Traditional Careers	5/20.83	3/10.34	2/10.53
Pursuing Own Career Goals	22/91.66	22/75.86	10/52.63
Favoring Social Activities Over Academics	5/20.83	3/10.34	4/21.05
<u>Paternal</u>			
Good Grades in High School	22/91.66	21/72.41	14/73.68
Taking Challenging Courses	15/62.50	20/68.97	10/52.63
Favoring Raising a Family over a Career	-	2/ 6.90	2/10.53
Limit Education	-	1/ 3.45	3/15.79
Pursuing Non-Traditional Careers	7/29.16	6/20.69	5/26.32
Pursuing Own Career Goal	23/95.83	21/72.41	10/52.63
Favoring Social Activities Over Academics	5/20.83	3/10.34	1/ 5.26

Note: The CANT group contained 24 respondents, the CAT group 29 respondents, and the REW group 19 respondents.

TABLE 4

## Daughters' Perceptions of Parental Attitudes

Category	CANT Number/Percentage	CAT Number/Percentage	REW Number/Percentage
<u>Maternal</u>			
Approval of Academic Achievements	+	+	+
Approval for Equal Career Participation	+	+	+
Approval of Women Working Outside Home	22/91.66	24/82.76	14/73.68
Approval of Wives' Employment	+	+	+
Receipt of Equal Career Satisfaction	23/95.83	25/86.21	7/36.84
Raising a Family Takes Precedence Over Having a Career	17/70.83	21/72.41	8/42.10
Preference for Own Wives to Stay Home	+	+	+
Need for Equality of Academic Success	21/87.50	25/86.20	15/78.95
Need for Equal Career Goals	24/100	29/100	19/100
Preference for Female Social Achievements	1/ 4.16	5/17.24	4/21.05

+ There were no maternal equivalents for these.

TABLE 4 continued

Category	CANT Number/Percentage	CAT Number/Percentage	REW Number/Percentage
<u>Paternal</u>			
Approval of Academic Achievements	17/70.83	24/82.26	11/57.89
Approval for Equal Career Participation	17/70.83	21/72.41	10/52.63
Approval of Women Working Outside Home	24/100	25/86.21	16/84.21
Approval of Wives' Employment	20/83.33	24/82.76	11/57.89
Receipt of Equal Career Satisfaction	19/79.16	23/79.31	9/47.37
Raising a Family Takes Precedence Over Having a Career	3/12.50	8/27.59	7/36.84
Preference for Own Wives to Stay Home	8/33.33	15/51.72	8/42.10
Need for Equality of Academic Success	20/83.33	24/82.76	12/63.16
Need for Equal Career Goals	20/83.33	21/72.41	12/63.16
Preference for Female Social Achievements	2/ 8.33	2/ 6.90	4/21.05

Note: The CANT group contained 24 respondents, the CAT group 29 respondents, and the REW group 19 respondents.

flected in a lower income level. Less than 5% of the respondents' mothers earned \$30,000 or more a year. The maternal work patterns in this study are consistent with what is viewed as the traditional female work pattern, i.e. early or late entry, brief span, interrupted, and low degree of participation (Zytowski, 1968). Only 10.0% of the mothers worked consistently during the respondents' youth, and 90.0% either never worked or worked only sporadically. (See Table 2).

#### Parental Reinforcement.

As can be observed from Table 3, the majority of parents reinforced good grades, and 53.4% encouraged enrollment in challenging and stimulating careers. There was also little overall reinforcement for raising a family to the exclusion of a career (16.1%), or for limiting educational achievements to high school or just two years of college (11.1%). A small proportion (30.0% overall) encouraged their daughters to pursue non-traditional careers.

In many instances, paternal patterns of reinforcement numerically exceeded maternal ones. The areas in which this was most evident were academic and career aspirations. Eighty and six-tenths percent of the fathers in the total sample provided reinforcement for their daughters' entrance into highly competitive fields of work, and 51.5 percent re-

inforced the notion of choosing a career for personal satisfaction rather than financial security. In addition, paternal reinforcement patterns were numerically superior to maternal patterns on items regarding the selection of challenging courses and a non-traditional career.

In contrast, maternal patterns of reinforcement exceeded paternal ones in those areas that involved traditional female activities. Specifically, these items included reinforcing the notions of raising a family rather than having a career, preferring social activities over academic ones, and limiting educational attainments. For all groups, the maternal reinforcement patterns on these particular items were perceived as stronger than the paternal.

Overall, with the exception of the specific items mentioned, there was some similarity in maternal and paternal patterns. For the total sample, 55.6% of the daughters perceived their parents as approving of having a career for personal satisfaction rather than financial security. Similarly, 80.3% were perceived as encouraging their daughters to pursue competitive careers. In general, high parental reinforcement was perceived as being received for obtaining good grades, enrolling in challenging courses, pursuing their own career goals, pursuing competitive careers, and working for personal satisfaction instead of financial gain.

On the other hand, low amounts of parental reinforcement were obtained for limiting educational achievements, raising a family and excluding a career or favoring social activities over academic ones. Parental reinforcement was provided for academic and career aspirations, and paternal patterns exceeded maternal ones.

### Parental Attitudes.

As can be observed from Table 4, parental attitudes were generally positive regarding female academic and career achievements, approval of female employment, and the specific employment of the respondents' mothers. For all groups, 70.5% of the fathers approved of academic success in females, and 46.7% saw the need for academic success as equal in males and females. Fathers more so than mothers were perceived as approving of women's employment, and 74.7% approved of their own wives' employment.

There is a dramatic difference in the paternal attitudes perceived by the daughters in the three groups. REW fathers expressed lower approval for the need for equal career satisfaction, equal career participation, academic success, and academic achievements than fathers of the CANT and CAT groups. REW fathers also expressed stronger approval for the more traditional mode of female career patterns, raising a family rather than pursuing a career. Interestingly, this

difference is more pronounced between the REW and CANT groups than the REW and CAT groups.

In contrast with the previous maternal patterns, positive maternal attitudes exceeded paternal ones on many items. Among all groups, positive maternal attitudes toward the need for equality of academic success and for equal career goals exceeded paternal ones. For all but the REW mothers, the need for equal career satisfaction was more positively regarded by the mothers than the fathers. In addition, attitudes toward raising a family in lieu of having a career were also perceived as more positive by the mothers than by the fathers.

### Multiple Regression Analyses

A correlation matrix is presented in Table 5 displaying the correlation of the criterion variable, career choice, with the subscale values of the parental variables. As can be seen from this table, correlations between the criterion variable and the predictor variables are low, ranging from .007 to .206. On the other hand, correlations among the predictor variables of maternal and paternal reinforcement, paternal attitudes and paternal reinforcement, paternal attitudes and maternal reinforcement, and maternal attitudes and maternal reinforcement were moderately high, ranging from .528 to .753.

TABLE 5

## Correlation Matrix of Criterion and Predictor Variables

	Career Choice	Paternal Reinforcement	Maternal Reinforcement	Paternal Attitudes	Maternal Attitudes	Paternal Modeling	Maternal Modeling
Career Choice	1.000	.206	.185	.100	.007	.073	.060
Paternal Reinforcement	.206	1.000	.753	.647	.358	.207	.367
Maternal Reinforcement	.185	.753	1.000	.541	.528	.395	.463
Paternal Attitudes	.160	.647	.541	1.000	.250	.179	.457
Maternal Attitudes	.007	.358	.528	.250	1.000	.222	.358
Paternal Modeling	.073	.207	.395	.179	.222	1.000	.284
Maternal Modeling	.060	.367	.463	.457	.358	.284	1.000

Note: Data represents correlations for 72 cases.

The criterion variable, career choice, was regressed on the subscales of the predictor variables. This procedure was performed in order to determine the contribution of each parental variable to the variance in career choice which is the rationale behind the testing of hypothesis one.

Hypothesis I: Career choice will vary independently of parental factors.

None of the subscale variables contributed significantly to the variance in career choice. Paternal reinforcement accounted for only 4.2% of the variance and was not statistically significant ( $R^2 = .0422$ ,  $F = 3.090$ , n.s.). Adding maternal attitudes to the equation increased the variance to 4.7%, but did not achieve statistical significance. Subsequent additions of the four other variables increased the variance only slightly to 5.7%, and no statistical significance was achieved. These results can be seen in Table 6.

Hypothesis one was not rejected. None of the parental variables either individually or combined with each other contributed significantly to the variance in career choice.

In order to determine the amount of variance that group membership contributed to the criterion variable, career choice, it was necessary to regress career choice on this variable. Secondly, the utilization of multiple regression and step-wise solution provided the means to test hypothesis two.

TABLE 6  
Regression of Career Choice on Parental Factors

Variable	b	R <sup>2</sup>	F <sup>+</sup>	Significance Level
Paternal Reinforcement	.0091	.042	3.09	n.s.
Maternal Attitudes	-.0189	.047	1.72	n.s.
Maternal Reinforcement	.0066	.054	1.30	n.s.
Paternal Attitudes	-.0043	.057	1.01	n.s.
Paternal Modeling	.0021	.057	.80	n.s.■

Notes: + F test based on R<sup>2</sup>.

■ Analysis was terminated at this point, F level insufficient for further computation.  
Data represents regression for 72 cases.

Hypothesis II: Career choice will vary independently of parental factors, controlling for group membership.

When the effect of group membership on career choice was examined, it was found that it accounted for 14.2% of the variance in career choice and was statistically significant ( $R^2 = .14229$ ,  $F = 5.72$ ,  $P < .01$ ). Adding maternal reinforcement to the equation increased the variance to 16.2% and the statistical significance of the contribution was maintained ( $R^2 = .16274$ ,  $F = 4.41$ ,  $P < .05$ ). The contribution of maternal modeling along with group membership and maternal reinforcement increased the variance to 16.5%. This effect was also statistically significant ( $R^2 = .1653$ ,  $F = 3.32$ ,  $P < .05$ ). The addition of the three remaining variables did not yield statistical significance. (See Table 7). Hypothesis two is not rejected, when group membership is controlled for, career choice varies independently of parental factors. By itself group membership contributed significantly to the variance in career choice. The variables of maternal reinforcement and maternal modeling contributed significantly to the variance only when combined with career choice and not by themselves (maternal reinforcement -  $b = .0073$ ,  $F$ -n.s.; maternal modeling -  $b = .0066$ ,  $F$ -n.s.). Thus, group membership appears to be the only statistically significant and practically important variable in the regression equation.

TABLE 7

Regression of Career Choice on Parental Variables,  
Controlling for Group Membership

Variable	b	R <sup>2</sup>	F <sup>+</sup>	Significance Level
Group D2	-.2852	.142	5.72	P<.01
D1	.0900			
Maternal Reinforcement	.0057	.163	4.41	P<.05
Maternal Modeling	-.0079	.165	3.32	P<.05

Notes: D2 and D1 represented the dummy variables by which group membership was coded.

Data represents regression for 72 cases.

+ F test based on R<sup>2</sup>.

The effects of group membership on each subscale variable were examined in this final procedure by means of six one-way analyses of variance and six multiple range tests. This procedure was undertaken to test hypothesis three.

Hypothesis III: The influence of parental factors will vary independently of group membership.

The results are represented in Table 8. They indicated that there were significant differences among the groups on the following variables: paternal modeling ( $F = 3.61$ ,  $P = .0316$ ); maternal reinforcement ( $F = 7.78$ ,  $P = .0008$ ); paternal reinforcement ( $F = 5.96$ ,  $P = .0037$ ); and paternal attitudes ( $F = 5.73$ ,  $P = .0046$ ). Using a Tukey multiple range test to examine the difference between pairs of groups, it was revealed that on the variable of maternal reinforcement, group 1 (CANT) and group 3 (REW), and group 2 (CAT) and group 3 (REW) differed significantly from each other at the .05 level. For the variables of paternal reinforcement and paternal attitudes, groups 1 (CANT) and 3 (REW) differed significantly from each other at the .05 level. For the variable of paternal modeling, groups 2 (CAT) and 3 (REW) significantly differed from each other. The variables of maternal modeling and maternal attitudes did not significantly differentiate among the three groups, and thus no differences between pairs of groups were found. (See Table 9 for group means).

TABLE 8

## Analysis of Variance Between Groups on Parental Variables

Variables	Sum of Squares	Mean Squares	F	Probability	D.F.
Paternal Reinforcement	1199.9	599.9	5.96	.0037	2
Maternal Reinforcement	1472.7	736.3	7.78	.0008	2
Paternal Attitudes	735.5	367.8	5.73	.0046	2
Maternal Attitudes	29.5	14.7	1.77	.1759	2
Paternal Modeling	138.4	69.2	3.61	.0316	2
Maternal Modeling	2.8	1.4	.08	.9262	2

Note: Data represents analysis of 72 cases.

TABLE 9  
Group Means on Parental Variables

Variable	Group 1 (CANT)	Group 2 (CAT)	Group 3 (REW)
Paternal Reinforcement	80.67 <sup>1</sup>	76.86	71.38 <sup>1</sup>
Maternal Reinforcement	78.59 <sup>2</sup>	77.03 <sup>3</sup>	65.50 <sup>2 3</sup>
Paternal Attitudes	53.67 <sup>4</sup>	50.68	46.25 <sup>4</sup>
Maternal Attitudes	31.41	32.40	31.12
Paternal Modeling	21.97	22.76 <sup>5</sup>	19.52 <sup>5</sup>
Maternal Modeling	8.52	8.37	8.08

Notes: The CANT group contained 24 respondents, the CAT group 29 respondents, and the REW group 19 respondents.  
Superscripts indicate pairs that differ significantly from each other.

TABLE 10

Variance in Group Membership Attributed to Parental  
Variables Derived from Analysis of Variance

---

Variable	R <sup>2</sup>
Maternal Reinforcement	.1488
Paternal Reinforcement	.1158
Paternal Attitude	.1152
Paternal Modeling	.0817

---

Note: Data represents analysis of 72 cases.

One additional operation was performed to measure the amount of variance in group membership accounted for by each subscale variable. As can be seen in Table 10, four parental variables contributed significantly to the variance in group membership.

There is evidence to support the rejection of hypothesis three since four out of six parental variables significantly affected the variance of group membership. Thus group membership did not vary independently of parental factors.

From the results of this data analysis it can be concluded that there is statistical evidence to support the acceptance of hypotheses one and two. In addition there is also statistical support for the rejection of hypothesis three.

### Discussion

The overall sample was comprised of white, predominantly Protestant females from middle and upper-middle class homes. The fathers of the respondents were overwhelmingly professional, while the mothers were either housewives or clerical workers. The responses of the women studied and their perceptions of parental reinforcement patterns, modeling and attitudes may not be truly representative of college age and re-entry females nationwide. With this possibility in mind, a discussion of the results follows.

## Parental Factors

### Parental Modeling.

Traditional female patterns of employment, education, and income were evident in the mothers of the respondents, while, at the same time, egalitarian or less stereotypical behaviors were reinforced in their daughters. Daughters were encouraged to pursue higher education, their own career choices, non-traditional and competitive occupations, and to do so for personal satisfaction rather than financial security. It appears that daughters are caught by the inconsistency. While observing traditional female career patterns in their mothers, they are also being reinforced for non-traditional career and educational aspirations by both parents. While being denied a more non-traditional maternal role model, they are at the same time being encouraged to perform non-traditional sex role behaviors. This ambiguity lessens the effectiveness of the mother as a career model.

In order for parents to act as effective models for their children, the models must first display the behaviors and demonstrate the consequences of them for the observer (Bandura, 1969). Parents who present ambiguous or ambivalent role behaviors are not effective models. Mothers who are wrestling with their own identities and goals will be unable to consistently present behaviors that can be replicated through observational learning.

As demonstrated by the multiple regression analyses, maternal modeling did not contribute significantly to the variance in career choice. Only when combined with group membership and maternal reinforcement was the impact on career choice statistically significant. Moreover, maternal modeling did not significantly differentiate among the three groups on the analysis of variance. Thus in neither case was maternal modeling a significant factor. Furthermore, paternal modeling did not contribute to the variance in career choice either. Paternal modeling did significantly differentiate among the three groups of respondents, with college age traditional females (CAT) perceiving higher amounts of paternal modeling activities than either the re-entry or college age non-traditional women. It must be kept in mind that the modeling variable measured levels of educational and income attainment as well as types of work patterns. What these results demonstrate is that CAT females perceived their fathers as having attained higher levels in these areas than the females in the other two groups. This is in contrast to Lyons' (1977) non-traditional females who perceived their fathers as attaining higher levels of education and income.

A more interesting finding was the amount of variance in group membership attributable to paternal modeling, 8.17%.

Although a small percentage, it does exceed the maternal contribution which was less than 3%. Thus, there is some support for the earlier results of Lyons that paternal modeling factors are more powerful than maternal in influencing traditional or non-traditional membership in their daughters.

In summary, neither maternal nor paternal factors significantly contributed to the variance in career choice; and only paternal modeling differed in its effects among the three groups. For this sample, parental modeling was not the effective agent it had been in the earlier research (Lyons, 1977; Davis, 1965). It can be proposed that, due to the very traditional nature of the role modeling, its effect would be minimal on a group that has already deviated from this position by attending college and planning for a career.

#### Parental Reinforcement.

Neither paternal nor maternal reinforcement contributed to the variance in career choice in a statistically significant manner. Paternal reinforcement did contribute 4.2% to the variance in career choice, but this amount is less than

that needed to achieve statistical significance, and in terms of practical importance it is rather meaningless. It does, however, lend support to Lyon's finding that while females received reinforcement for achievement from both parents, non-traditional females received more parental reinforcement than traditional and received the bulk of it from their fathers.

It is interesting to note from the figures in Table 3, that on some items the numerical differences between respondents' perceptions of maternal and paternal reinforcement were minimal. Specifically, responses to questions regarding parental patterns of reinforcement for: pursuing non-traditional careers; pursuing their own career goals; and, continuing their education; revealed that paternal patterns were numerically higher than maternal patterns. However, in reality, this difference is practically meaningless. Although for many of the items little difference was observed in paternal and maternal patterns, on other items fathers were perceived as more rewarding than mothers. These included the entrance into competitive and demanding fields, the acquisition of a career for personal satisfaction rather than financial security, and combining a career with raising a family (over 90% reinforced this option).

An analysis of variance with the three groups provided additional information. (See Tables 8 and 9). Perceived amounts of both maternal and paternal reinforcement differed significantly among the three groups. Paternal reinforcement scores were higher for the college age females than for the re-entry group, and they were higher for the CANT group than for any others. Except for the CAT group, paternal reinforcement scores were higher in each group category than maternal reinforcement scores. Not only were fathers perceived as providing more reinforcement for academic and career achievements than mothers, but they were perceived as providing more of it to their non-traditional college-age daughters. Paternal reinforcement appeared to be a more effective modifier of career choice, through its effects on group membership, than either maternal reinforcement or parental modeling. This was congruent with Lyons' findings that paternal reinforcement is a more potent factor than maternal reinforcement, and a predominant influence on non-traditionals.

What emerges from the present data analysis so far is this: females in all three groups were presented with traditional male and female role models, while at the same time receiving parental reinforcement for pursuing non-traditional career and academic patterns. Mothers were perceived as

valuing social activities and family roles more than fathers, and to a greater extent in the REW females than in either of the college age groups.

The overall effect is somewhat puzzling. It appears that the respondents ignored the traditional role models and, instead, attended to the parental reinforcement patterns which contrasted with them. Women must, according to Psathas (1968), strike and maintain a realistic balance between sex role and occupational role. Perhaps this is what occurred here. By attending to certain portions of the parental factors and ignoring others, the respondents have constructed a harmonious balance. Specifically, they have balanced their mothers' behavior and reinforcement patterns and their own career aspirations. In addition, they might have responded more to their fathers' reinforcement patterns rather than his actual, traditional behavior. Thus they have been able to choose to pursue higher education and even a non-traditional career in 57.7% of the cases. Respondents appeared to have adopted reinforced, non-traditional patterns of sex role behavior, ignored the traditional female career patterns of their mothers (housewife, clerical worker, etc.), pursued an occupational role, and achieved some sort of equilibrium among the three.

What has also begun to emerge is a paradigm of the influence of parental factors. It appears that parental factors have their greatest and most significant impact on group membership, and this in turn affects career choice. It is not that parental factors have no effect on career choice, but their effect is indirect, mediated by group membership.

### Parental Attitudes.

Sex stereotyped attitudes regarding female career aspirations and the employment of women were perceived in the parents of all three groups. Twenty-five and six-tenths percent of the fathers were perceived as approving of raising a family over having a career, and 42.4% had preferred that their own wives stay home and raise the family.

While 100% of the mothers believed in the equality of career goals and the need for satisfaction from a career, only 38.2% actually favored outside employment. The majority preferred to stay home and raise their families. There were significant differences among the three groups on the paternal attitude factor only. CANT and REW were significantly different from each other, indicating that college age non-traditionals perceived more positive paternal attitudes than either their traditional counterparts or the re-entry group. Overall, mean scores were higher for both the college age groups than the re-entry women. Maternal attitudes did not

significantly differentiate among the groups. These results indicated that a more positive paternal attitude toward female achievement, employment, and aspirations was evident in the fathers of the younger college age females, and most notably in the non-traditionals. It is plausible, that in light of the tremendous strides women have made in the last fifteen years in the areas of public awareness and legislation, that the effect of these changes would be reflected in the modification of attitudes regarding female academic and career achievements. What is somewhat perplexing is that these changes did not appear to affect the perceived attitudes of the mothers of the respondents. Neither in the analyses of variance nor the multiple regression analyses did maternal attitudes differentiate among the groups, nor did they affect career choice. Maternal attitudes did not appear to be any different for the older re-entry group than for the younger college age females and, in fact, are less positive overall than paternal attitudes. Although the frequency tables reflect percentage differences, overall mothers appeared to have maintained a traditional stance toward female achievements and, therefore, had little influence on their daughters' career choice. This finding supports the conclusions of previous research (Wilson, 1977, Guttmacher, 1979; Kane and Frazee, 1978) that families, especially moth-

ers, often exert a conservative influence upon the career development patterns of their daughters. Families tend to emphasize family roles, a finding substantiated in the present study, at the expense of career roles. In addition, traditional mothers' attitudes were found to be more effective in influencing the career choices of their traditional daughters, and fathers' attitudes were found to be more effective with non-trationals. While the data were not specifically analyzed for this purpose, it can be hypothesized that this effect would also occur here. Mothers followed traditional sex stereotyped career and educational patterns. Their patterns have been reflected in their attitudes, and could conceivably be a more potent factor in the career development of their traditional daughters. By virtue of the fact that the respondents in this study chose a non-traditional path by attending college, the effectiveness of the perceived traditional attitudes of their mothers would be nullified. Daughters generally deviated from their maternal role models and tended to acquire and perform only those behaviors that were either positively reinforced or positively valued by their parents, i.e. attending college, aspiring to a career, and pursuing an occupational goal. Maternal attitudes in the present study may not have been a significant contributor to the variance in career choice because as a

variable they were ineffective predictors of career choice. On the other hand, it may be that maternal attitudes were not fully represented or assessed by the instrument. Since this is a rather recent area of inquiry, expansion and additional development of the instrument may yield more conclusive results.

Based on the cross-sectional nature of this research, statistically significant changes in paternal attitudes appear to have occurred. A significant difference was observed in the paternal attitudes of the college age and re-entry samples. There were minimal differences in the mean maternal attitude scores among the three groups with the REW groups having the lowest scores; however, the differences were not statistically significant. Thus it appears that the women's movement, economic pressures, and changes in family size and composition may have had a greater influence on paternal attitudes than maternal. Perhaps, because of their more liberal attitudes, fathers became a more effective influence on their non-traditional daughters' career and academic decisions than their mothers, who maintained less liberal attitudes. Earlier research by Tenzer (1977), Lyons (1977), Wilson (1977), Kane and Frazee (1978), and Guttmacher (1979) found that non-traditional daughters were affected more by paternal attitudes and reinforcement pat-

terns than they were by maternal patterns. An explanation of these results may be that traditional mothers, as the mothers of the respondents in the present study were, did not model professional careers nor mirror the attitudes of more androgynous sex roles to the extent necessary to contribute to their non-traditional daughters' career choice. In view of the changes in women's roles and opportunities, this result may differ if future studies make use of several cohort groups with greater age differences.

#### Career Choice.

The career choice of women in this investigation appeared to be influenced only by group membership. The variables of parental reinforcement, parental modeling, and parental attitudes did not significantly affect this choice. As stated previously it may be that modeling was not a potent variable in any case and needs to be re-examined and re-constituted. Only six items were used to measure parental modeling and this may not be a comprehensive enough listing. Prior investigations on the impact of parental role models on daughters' career choice have often been contradictory. Sorensen and Winters (1975) found that maternal role models influenced their daughters' career salience, and that both traditional and non-traditional attitudes affected career salience. Other researchers have found that only working

mothers were influential, and that these working mothers were even more powerful forces on their non-traditional daughters (Burlin, 1976; Huth, 1978; Almqvist and Angrist, 1970).

In contrast, Lyons (1977) found paternal models and reinforcement patterns to be the primary factors, while maternal models and reinforcement patterns were only secondary. Perhaps for this study the maternal role model is constricted and does not offer opportunity for replication in the area of career choice, due to the mother's traditional association with her daughter.

That fathers appear as more powerful influencers may be due to the fact that if their daughters do model themselves after them, they are exposed to a greater number and variety of roles which tend to expand their awareness of vocational opportunities and would increase the likelihood of choosing non-traditional careers. This would at least partially explain the more dominant role of paternal modeling on non-traditionals found in the work of Lyons and Tenzer (1977). What factors caused the daughter to model or identify more closely with her father were not evident. It can be surmised, using social learning theory as a basis, that certain genetic abilities and endowments may predispose some daughters to form closer relationships with their fathers.

Daughters are then available to observe more of fathers' behaviors and to be reinforced for imitating them. It may also be that observation of their mothers' roles did not produce observational learning because daughters did not observe as many positive consequences of the maternal behaviors as they did when they attended to paternal activities. The effect of parental modeling on career choice is not significant in this study; further examination of appropriate assessment items and expansion of the sample may provide more knowledge on the subject.

Parental attitudes did not significantly contribute to career choice, although they did, as shown earlier, distinguish between college age and re-entry women. Although the predominant mode of parental attitudes was one of egalitarianism in regard to female academic and career achievements, it may be that other attitudinal factors not investigated here had a greater influence on career choice. Thus, although their parental attitudes reflected for the most part less traditional and less stereotyped values and beliefs, their influence was not significant because other attitudes that were not examined may have had a more dominant effect.

### Group Membership.

The sample was divided into three groups to investigate the different effects of parental influences among traditional and non-traditional college students, and across ages using a sample of older re-entry women. Parental reinforcement patterns and paternal attitudes had a differential effect on college age and re-entry groups. College age females received larger amounts of parental reinforcement for academic achievement and non-traditional career goals than re-entry women. Perceived changes in parental reinforcement patterns may have occurred due to a recognition of increased female participation in the labor force, changes in family size and structure, the women's movement (Women's Bureau, 1972) or direct confrontation with new sex roles and behaviors. Whatever caused the differences, the data reflected that a modification of perceived patterns of reinforcement and attitudes existed between parents of college age and re-entry women. Regardless of the major field of study, parents of college age females provided more reinforcement for academic and career achievements. The variance in reinforcement patterns may be a direct result of, or a contributing factor to, the changes that have also occurred in paternal attitudes. Here too, a significant difference is found between college age and re-entry groups, mirroring the

changes in reinforcement patterns and in society's attitudes toward the employment and achievements of women.

The only variables that did not differentiate among the three groups were maternal modeling and maternal attitudes. This may be due to the reality that in order to model social and occupational role changes an opportunity to participate is necessary, and although reinforcement patterns may change, the actual parts played by men and women and the values they hold have not. In spite of the increasing participation of women in the labor force, men still outnumber women in professional positions. Despite legislation and oratory to the contrary, women still earn 60% of male earnings for similar positions (Women's Bureau, 1972, Vetter, 1978).

Thus the actual representations of the changes, the role models, have probably remained the same for the parents of the college age and re-entry women in this sample. This diminishes their potential as influences and precludes any differential effects on the groups. This has been borne out by the results of this study. Maternal modeling did not differentiate among the groups, and paternal modeling differentiated only slightly between groups 2 (CAT) and 3 (REW).

Two of the parental variables appear to have a diverse effect on group membership. That is, college age women in either traditional or non-traditional fields of study, received significantly greater amounts of parental reinforcement for career and educational achievements than the re-entry women. They also perceived more positive paternal attitudes toward female employment, the employment of their mothers, and their own academic achievements and aspirations, than re-entry women. It is plausible to assume then that time and the modification of social policies and attitudes have affected at least two of the parental variables under study. Further investigation with a larger more representative sample would be necessary to obtain more conclusive evidence.

The most significant finding of this study to emerge was the fact that group membership appeared to be the most potent of all the predictor variables in its effects on career choice. It accounted for 14% of the variance in career choice.

Four of the parental factors also contributed significantly to the variance in group membership. Parental factors appeared to have their greatest impact on group membership. That is: whether or not the daughter chose a traditional or non-traditional field of study and/or if the

daughter chose to discontinue her earlier education and re-enter at a later time. It was assumed from the results of this study that once this decision is made, its impact on career choice becomes evident. It may be logical to assume that women in non-traditional fields of study will choose non-traditional careers in greater numbers than females in traditional careers. The data from this study indicate almost identical numbers of women in each of the categories. (See Table 1). Thus the assumption was supported by the data. Re-entry women as a whole tended to choose more traditional fields of study and careers; it can be hypothesized that this was due to the traditional role models and more traditional patterns of reinforcement and attitudes they perceived in their parents.

#### Relationship to Social Learning Theory.

Social learning theory recognizes that career development and choice is a complex process that involves the interaction of genetic, environmental and learning factors (Krumholtz, 1976). The current investigation limited its focus to the environmental factors of family training experiences, attitudes, and models. These environmental factors interact with both the learning experiences and genetic components to produce unique career patterns that continue to interact with the other variables. Career selection is seen as both

developmental and continuous; thus, influences dominant at one period of time may fade and become latent at another, or re-emerge later in life.

It may be that the influence of parental variables on the career choice of college age and re-entry women are latent at this time. Perhaps investigations at earlier or later stages in career development would produce different results. There is some support for the last statement in Bielby's work (1978); she found that the influence of maternal occupational patterns became latent prior to or just after college graduation and remained that way until after childbearing was completed. This may explain the lack of influence of parental modeling on the re-entry group and the lowered mean scores for re-entry women on parental reinforcement and attitude scales. Perhaps, as Bielby suggests, the influence of spouse and children are more powerful at this time.

Additional investigations should strongly consider addressing themselves to other environmental factors that potentially influence career selection, and examine their contribution to career choice. Since the results of this study reflect the non-significant contributions of parental factors to career choice, social learning theory dictates that:

- 1.) the measures used to examine these variables be reana-

lyzed and if possible externally validated; and 2.) that other environmental factors that include the influence of school counselors, other models, job opportunities, and the financial return of the chosen career, also be investigated.

Alternately, it can also be proposed that this study represents a true portrayal of parental variables in this atypical group of women; that due to the ambiguity that resulted from the influence of traditional role models and egalitarian attitudes and reinforcement patterns, these particular parents did not contribute to their daughters' career choice. In effect, what may have occurred was that other environmental factors, in combination with learning experiences and genetic endowments, were dominant factors in these females' career choices. There is some evidence that demonstrates that when family factors produce conservative effects on career and educational choices, other influences take precedence (Guttmacher, 1979). It may be that the effect of the media, the women's movement, and other learning and environmental factors were more prevalent in these women's career choices than their parents. The present data support this contention since 57.7% of the sample chose non-traditional careers which were in direct opposition to maternal role models, and some parental attitudes and reinforcement patterns. It can be proposed then, that when pa-

rental factors are ambiguous or inconsistent, their effect on daughters' career choices fade and are replaced by other factors that become dominant. Judging from the present research, this may well have been the case. Role models consistently displayed traditional occupational and educational patterns, while perceived reinforcement and attitude patterns provided both traditional and egalitarian examples. In spite of this incongruity, over half the women in this study chose a non-traditional occupation, and all have chosen to attend college, a behavior not displayed by 36.4% of their mothers.

The social learning framework allows us to include other operationally defined variables whose contributions can be measured and interpreted; among the variables are learning experiences, genetic endowments, and other environmental factors. While group membership accounted for 14% of the variance in career choice, 86% is still unexplained. Incorporation of other variables may aid in the explanation of a greater portion of the variance. Therefore, the results of this study should not be discarded as irrelevant due to the low variance scores, but used as a foundation for future, more comprehensive research.

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Summary

#### Purpose

The purpose of this study was to investigate the contributions of three specific parental factors to the career choices of females. Social learning theory was the theoretical framework on which the study was based. The variables of parental reinforcement patterns, parental attitudes and parental modeling were studied for their effects on the career choice of three groups of women: college age traditional, college age non-traditional, and re-entry.

#### Background

Female career development patterns have only recently begun to be investigated as a legitimate area of inquiry (Vetter, 1978). Previously, female occupational behavior had been viewed as only a transient stage in the females' life cycle (Vetter). As more women join and remain in the labor force, this view is slowly being challenged. While there is much research on parental and other factors affecting male career development, little definitive knowledge exists re-

garding career development in females (Goodale and Hall, 1976; Davis, 1974). The variables that affect female career development are often less observable and more indirect (Psathas, 1968).

This study sought to examine the influence of three specific parental variables on the career choices of females. Social learning theory was chosen as a frame of reference to delimit the scope of this investigation, to determine the variables and to guide the investigation. Social learning theory was selected because it recognizes the multiple and interactional impact of heredity, environment and learning experiences. The complexity and uniqueness of the interaction makes this theory applicable to both sexes and all age groups. It allows for changes in the interaction configuration that can occur over time and in differing situations. Furthermore, the foundations of social learning theory are found in basic learning theory and behavioral psychology; its concepts can be operationally defined, measured and empirically demonstrated. The concepts of modeling, vicarious reinforcement and observational learning are the cornerstones of this theory. A consequence of the utilization of this theory was the selection of the three parental variables: reinforcement patterns, modeling and attitudes. An examination of their contribution both together and indivi-

dually on the career choices of the female respondents was undertaken.

### Respondents, Method, and Results

Using a mail-in questionnaire designed specifically for this purpose, 170 college age and re-entry women were surveyed. (The college age sample consisted of two groups, the re-entry sample of one). One hundred and five females responded. Seventy-two complete observations were used to compute the results. Analyses of the responses supported accepting hypotheses one and two.

I - Career choice will vary independently of parental factors.

II - Career choice will vary independently of parental factors when group is controlled for.

Only hypothesis three was rejected: III - Group membership will vary independently of parental factors. Four of the parental subscale variables significantly differentiated among the groups, and there were significant differences between the two college age groups and the re-entry women on both parental attitudes and parental reinforcement patterns.

It was concluded that group membership was a significant influence on the career choices of the respondents, that it acted as a mediating factor between parental influences and career choices, and that parental factors differed in their impact on group membership.

### Conclusion

Parental reinforcement patterns, attitudes and modeling did not appear to have a significant impact on the career choices of the women studied. This was observed for both college age and re-entry women. The most significant predictor variable related to career choice was group membership; it accounted for 14.2% of the variance.

For the most part, parental modeling reflected traditional and sex stereotyped behaviors. Specifically, maternal modeling reflected the traditional female educational, occupational, and income levels of the respondents' mothers, and had no significant effect on either group membership or career choice. It may be that no maternal occupation or a low paying one did not provide the effective role models and vicarious reinforcements necessary for observational learning to occur in the daughters. Therefore, daughters choosing college and careers had no maternal model to observe and imitate and thus were forced to seek other role models.

This investigation has provided some additional insights into female career development and choice. Paternal modeling did significantly affect group membership, in that it differentiated among the three groups. It was proposed that the fathers of the respondents were more effective and successful role models because of their professional affiliations and higher incomes, and thus provided more occasions to observe reinforcing situations associated with these activities, and more opportunities for observational learning to occur. It must be noted however that although paternal modeling affected group membership and significantly distinguished between college age and re-entry women, it had no significant effect on career choice. Perhaps this is due to the fact that paternal modeling effects differed because of the age differences in these two groups and the changes that have occurred in parenting techniques, family structure and women's roles over the past fifteen years.

Based on the results of this study, it may be concluded that parental factors had little or no direct effect on the career choices of the females sampled. Despite previous evidence to the contrary (Lyons, 1977; Almqvist and Angrist, 1970; Sorenson and Winters, 1975), for this particular sample, parental factors did not contribute in a statistically significant way to the variance in career choice.

Group membership did significantly contribute 14.2% of the variance in career choice. Parental factors impacted upon group membership, which in turn influenced career choice. That is, the influence of parental factors differed in their effects on college age and re-entry women, and also on traditional and non-traditional women. It was group membership, however, that influenced the choice of a career, and the effects of parental influences were mediated through it. It must be emphasized that only 14.2% of the variance in career choice was accounted for by group membership; therefore other factors not included in the present study must have contributed to group membership.

Other factors derived from social learning theory would appear to be more effective contributors to the variance in career choice. One such factor is the instrumental learning experience. Such experiences are specific responses emitted by individuals which produce consequences that have a positive or negative effect on the individual's later career decisions. What these experiences were for the present sample are unknown. If these responses were positively reinforced, they would be likely to be repeated and to generalize to other situations. Therefore, if the females in this study engaged in behaviors that produced positive consequences for them, they would be likely to repeat these responses and

thus receive further reinforcement for them. If these learning experiences involved occupational choices and educational decisions, the effect of them on career choice might well take precedence over the parental factors examined in this study. For example, if a female had a positively rewarding experience during a summer or part-time job, the results of that learning experience could influence her future career choices. She might then choose a college major and eventually a career that relates in some way to the previous learning experience. By the same token, if the consequences of the learning experience were negative, the respondent would be unlikely to seriously consider similar occupations as a career choice. Evidence supporting this assumption was found in the research of Almquist and Angrist (1970) who concluded that summer and part-time employment experiences significantly influenced a female's decision to pursue a particular career. It would appear likely that the respondents in this study were exposed to and actually participated in earlier instrumental learning experiences that took precedence over parental factors and that dominated their career choices.

In view of the inconsistencies among parental models, parental attitudes, and parental reinforcement patterns, the low variance scores were predictable. The perceived incon-

sistency and ambiguity in the parental factors were unlikely to produce significant effects on their daughters' career choices. Except in rare instances, the consequences of behavior need to be unambiguous and repeated for observational learning to occur. The contrast between role models and parental attitudes and reinforcement patterns appeared too great for this condition to occur. Thus, for the present study, parental factors did not contribute to the variance in career choice in a practical or meaningful manner. In light of the findings from this study, it was concluded that group membership mediates the effect of parental factors on female career choice and that other factors derived from social learning theory contributed to career choice, along with group membership.

#### Limitations of the Study

Several limitations regarding the results of this study should be considered. First, caution must be exercised in interpreting the results. Due to the high and statistically significant intercorrelations of the predictor variables (see Table 5) and the low correlations of the criterion variable with the predictor variables, any conclusion derived from these analyses should be carefully scrutinized.

### The Instrument.

Although reliability for the original instrument (Lyons, 1977) ranged from .93 for each scale to .95 for combined maternal and paternal scales, a subsequent reliability check on the revised reinforcement and attitude scales revealed substantially lower coefficients. The fact that the original scale was used on 18 graduate students and the revised scale on 26 undergraduate women may have influenced the results. Graduate students are usually at a more stable level of career development than undergraduates (Ginzberg, 1951, 1952, 1972; Super, 1953). The graduate students themselves may have surmised the purpose of the inquiry and therefore paid more attention to accuracy and detail than the undergraduate sample who were unaware of its purpose.

An additional problem caused by the relatively low reliability coefficients is that only a small proportion of the variance is accounted for by the variables under study, and thus the amount of variance attributable to error and extraneous variables is increased. Therefore any interpretation of these results must be made with caution.

A further limitation of the instrument involved the lack of external criteria on which to validate it. Only content validity was claimed to be utilized in this and the earlier study by Lyons (1977).

### The Sample.

The demographic features of the re-entry women did not differ from those found in other studies (Brooks, 1976; Brandenburg, 1974); however, the lack of a greater response rate from this group makes it difficult to generalize the findings. Re-entry women at Virginia Polytechnic Institute and State University may not truly represent the re-entry population. The rationale behind their decision to re-enter higher education and to do so at this particular institution may not be the same rationale used by other re-entry women. Of the married women in the re-entry group, over one-half were faculty wives who moved to the area because of their husband's careers and not solely for their own educational needs. No data on this specific phenomenon were available or collected; therefore no conclusions about its effects on this group's educational or career decisions can be drawn.

It can also be argued that college age females at Virginia Polytechnic Institute and State University do not represent the general college age female population. Due to its location in the south, its area of recruitment, the racial composition, and the parental socioeconomic level, females at this institution may be a non-representative sample and would more likely be traditional than a national sample. To counter this criticism, however, it must be noted that at-

tempts were made to alleviate this problem by selecting traditional as well as non-traditional females. The data revealed that traditional and stereotypical attitudes were present in the parents of both groups of women and therefore did not differentiate between the groups.

### Recommendations

The major recommendation derived from this research was that further study is imperative. Research in the area of female career development and the influence of parents and others on it is just beginning to be recognized as legitimate and important. Future research projects should avail themselves of larger, more representative samples. That is, respondents should represent: urban as well as rural universities; college as well as non-college females; racial groups other than caucasian; other religious groups; and, regional areas other than the south. Furthermore, care should be taken to increase the sample size, particularly the re-entry group, so that differences among the cohort groups may be more clearly observed.

The instruments used to measure parental influence are in need of further development and refinement. Additional items that can be measured on an interval scale need to be included in both the modeling and attitudinal scales. In

conjunction with this refinement process, it may become necessary to eliminate those items from the scales of the parental variables that are highly correlated with one another.

Moreover, measures of both reliability and validity need improvement. The reliability scores on the reinforcement and attitude scales were low. Additional tests using an improved instrument on a larger sample appear to be in order. It may also be necessary to use factor analysis to increase the precision of the instrument. In addition to content validity, it is recommended that sources of criterion validity be located so that this measure can also be reported. The incorporation of procedures that further refine and validate the instrument should enhance the legitimacy of its use in anticipated inquiries in the area of female career development and choice.

In regard to the data analysis, it is recommended that: additional analyses of variance on career choice and the parental variables be performed; that variables with high colinearity be eliminated; and, that path analysis be utilized to depict the contribution of each variable to the variance in career choice.

The final recommendation is to incorporate other influences from social learning theory in future replications of

this study and in subsequent research on female career development and choice. It has been noted earlier that parental factors appeared to have a potent effect on group membership, yet much of the variance was unexplained. It is suggested that the inclusion of other environmental factors, as well as learning experiences, be examined for their impact on group membership. This procedure may aid in explaining some of the unexplained variance in group membership. It is further proposed that after a significant proportion of the variance in group membership has been accounted for by the variables under study another investigation of the influence of group membership on career choice be undertaken. It is recommended that, in addition to group membership, further study also include the variables of self-observation generalizations and task approach skills as they impact upon career choice. Self-observation generalizations, or S-O-G's, are those feelings, attitudes, beliefs, and evaluations one makes about one's competencies, preferences, interests, and job skills. Task approach skills are those abilities, personality characteristics, and decision-making skills that make it possible for an individual to enter a particular career and perform the tasks involved. Both of these variables are derived from the social learning theory framework.

To conclude: the present investigation was an attempt to isolate three factors of parental influence and to study their effect on the career choices of their daughters. It was a beginning, a first step, in a field just recently recognized as a legitimate area of inquiry. As with much exploratory research, no indisputable conclusions were reached. Much more work in this area is needed. Samples and instruments need to be improved, and the use of a theoretical framework that can be applied to female career development is imperative. It is this author's hope that this study will spur others to continue research in this area.

## BIBLIOGRAPHY

- Almquist, E.M. Sex stereotypes in occupational choice: The case for college women. Journal of Vocational Behavior, 1974, 5, 13-21.
- Almquist, E. and Angrist, S. Career salience and atypicality of occupational choice among college women. Journal of Marriage and the Family, 1970, 32 (2), 242-248.
- Astin, H. S. Some Action of Her Own. Lexington, Mass.: D. C. Heath and Company, 1976.
- Astin, H. S. Continuing education and the development of adult women. The Counseling Psychologist, 1976, 6 (1), 55-61.
- Bandura, A. Principles of Behavior Modification. New York: Holt, Rinehart and Winston, 1969.
- Bandura, A. and Walters, R. Adolescent Aggression. New York: Ronald, 1959.
- Bandura, A. and Walters, R. Social Learning and Personality Development. New York: Holt, Rinehart and Winston, 1963.
- Becker, H. and Murff, R. Did you know . . . data about freshman career plans. Texas Personnel and Guidance Journal, 1978, 6, 71-81.
- Berson, J. Perceived costs of combining career and family roles: The influence of early family history on adult role decisions. Paper presented at meeting of British Psychological Society, Cordiff, Wales, 1977.
- Bielby, D. D. Maternal employment and socioeconomic status as factors in daughters' career salience: Some substantive refinements. Sex Roles, 1978, 4 (2), 249-265.
- Birk, J. Experience-based career exploration. In J. Krumboltz and C. Thoreson (Eds.), Counseling Methods. New York: Holt, Rinehart and Winston, 1976.

- Bostaph, C. and Moore, M. Career ambivalence and the returning adult woman student. Journal of College Placement, 1979, 39, 19.
- Brandenburg, J. B. The needs of women returning to school. Personnel and Guidance Journal, 1974, 53, 11-18.
- Brooks, L. Supermoms shift gears: Re-entry women. The Counseling Psychologist, 1976, 6, 33-37.
- Bruce, J. A. The role of mothers in the social placement of daughters: Marriage or work? Paper presented at the American Sociological Association meeting, New York, 1973.
- Brunkan, R. J. Perceived parental attitudes and parental identification in relation to problems in vocational choice. Journal of Counseling Psychology, 1966, 13, 394-402.
- Brunkan, R. and Crites, J. An inventory to measure the parental attitude variables in Roe's theory of vocational choice. Journal of Counseling Psychology, 1964, 11(1), 3-11.
- Burlin, F. The relationship of parental education and maternal work and occupational status to occupational aspirations in adolescent females. Journal of Vocational Behavior, 1976, 9(1), 99-103.
- Church, O. Career objectives of Wyoming secondary school students compared with parental occupations. Wyoming State Department of Education, Cheyenne, Wyoming, 1974.
- Crawford, J. D. Career development and career choice in pioneer and traditional women. Journal of Vocational Behavior, 1978, 12, 129-139.
- Davis, J. A. Undergraduate Career Decisions. Chicago: Aldine, 1965.
- Dewinne, R., Overton, T., and Schneider, L. J. Types produce types - especially fathers. Journal of Vocational Behavior, 1978, 12, 140-144.
- DeWolf, V. and Tunneborg, P. W. Descriptive information on over-35 undergraduate students. Washington University, Seattle, Bureau of Testing, December, 1972.

- Farmer, H. J., Why women contribute less to the arts, sciences and humanities. Paper presented at the Annual meeting of American Educational Research Association. San Francisco, 1976.
- Farmer, H. Why females choose careers below their potential. In L. S. Hansen and R. S. Rapoza (Eds.), Career Development and Counseling of Women. Springfield, Illinois: Charles Thomas, 1978.
- Ferguson, J. Career guidance in the community college. In J. Krumboltz and C. Thoresen (Eds.), Counseling Methods, New York: Holt, Rinehart and Winston, 1976.
- Ferster, C. B. and Skinner, B. F. Schedules of Reinforcement. New York: Appleton-Century-Crofts, 1957.
- Gansemer, L. and Bealer, R. C. Family background and occupational attainment: Replications and extension through a 24 year follow-up. Pennsylvania State University: Department of Agricultural Economics and Rural Sociology, 1977.
- Gelatt, H. B. Decision-Making: A conceptual frame of reference for counseling. Journal of Counseling Psychology, 1967, 9, 240-245.
- Ginzberg, E., Ginzberg, S. W., Axelrod, S., and Heims, J. Occupational Choice: An Approach to a General Theory. New York: Columbia University Press, 1951.
- Ginzberg, E. Toward a theory of occupational choice. Personnel and Guidance Journal, 1952, 30, 491-494.
- Ginzberg, E. On career guidance. Counseling: Today and Tomorrow, 1972, 1, 7-17.
- Goodale, J. S. and Hall, D. T. Inheriting a career: The influence of sex, values, and parents. Journal of Vocational Behavior, 1976, 8, 19-30.
- Goodstein, L. D. Behavioral views of counseling. In B. Stefflre & W. H. Grant (Eds.), Theories of Counseling. New York: McGraw-Hill, 1972, 243-286.
- Grandy, T. and Stahmann, R. Types produce types: An examination of personality development using Holland's theory. Journal of Vocational Behavior, 1974, 5, 231-239.

- Guttmacher, M. J. Individual and familial correlates of career salience among upwardly mobile college women. National Institute of Education, DHEW, Washington, D.C., 1979.
- Hansen, S. L. and Rapoza, R. S. Career Development and Counseling of Women. Springfield, Illinois: Charles C. Thomas, 1978.
- Holland, J. L. Making Occupational Choices, A Theory of Careers. Englewood Cliffs, New Jersey: Prentice Hall, 1973.
- Hoppock, R. Occupational Information. New York: McGraw-Hill, Inc., 1967.
- Huth, C. M. Married women's work status: The influence of parents and husbands. Journal of Vocational Behavior, 1978, 13, 272-286.
- Indiana State Board of Vocational and Technical Education. Sex as a determinant in vocational choice. New Educational Directions, Crawfordsville, Indiana, 1977.
- Johnson, D. H., Wallace, K. W. and Sedlacek, W. E. A comparison of the needs of returning and traditional students by sex. Journal of the National Association of Women Deans, Administrators and Counselors, 1979, 42(3), 14-16.
- Jones, G. B. Evaluation of problem-solving competence. In J. Krumboltz and C. Thoresen (Eds.), Counseling Methods, New York: Hall, Rinehart and Winston, 1976.
- Kacerguis, M. and Adams, G. Implications of sex typed child-rearing practices, toys, and mass media materials in restricting occupational choices of women. Family Coordinator, 1979, 28, 369-375.
- Kane, R. and Frazee, P. Occupational choice: Do traditional and non-traditional women differ. Women's Bureau, (DOL.) Washington, D.C., 1978.
- Kane, R. and Frazee, P. Women in non-traditional vocational education in secondary schools. Bureau of Occupational and Adult Education, (DHEW/OC), Washington, D.C., 1978.
- Klemmack, D. and Edwards, J. Women's acquisition of stereotyped occupational aspirations. Sociology and Social Research, 1973, 57, 510-525.

- Krumboltz, J. D. A social learning theory of career selection. The Counseling Psychologist, 1976, 6, 71-80.
- Krumboltz, J. Mitchell, A. M. and Gelatt, H. B. Applications of a social learning theory of career selection. Focus on Guidance, 1977.
- Krumboltz, J. and Thoresen, C. Counseling Methods. New York: Holt, Rinehart and Winston, 1976.
- Krumboltz, J. D. and Thoresen, C. E. (Eds.). Behavioral Counseling: Cases and Techniques. New York: Holt, Rinehart and Winston, 1969.
- Lyons, L. The relationship of parental reinforcement, parental modeling, need achievement, and need affiliation to the type of graduate program enrollment of females. Paper presented to American Educational Research Association, April, 1977, New York.
- Marple, B. L. Adult women students compared with younger students on selected personality variables. Journal of the National Association of Women Deans, Administrators and Counselors, 1976, 40, 11-15.
- Medvene, A. Occupational choice of graduate students in psychology as a function of early parent-child interactions. Journal of Counseling Psychology, 1969, 16(5), 385-389.
- Medvene, A. and Shueman, S. Perceived parental attitudes and choice of vocational speciality area among male engineering students. Journal of Vocational Behavior, 1978, 12, 208-216.
- Oppenheimer, V. K. The sex labeling of jobs. Industrial Relations, 1968, 7, 219-234.
- Parsons, J. Parental influence on junior high school girls' mathematical expectancies and course plans. Paper presented to American Psychological Association, 1979, New York.
- Peng, S. and Jaffe, J. Women who enter male dominated fields of study in higher education. American Educational Research Journal, 1979, 16(3), 285-293.

- Penn, J. R. and Waver, D. A. Adult students: Problems, practices and programs at 4 year institutions. Journal of the National Association of Women Deans, Administrators and Counselors, 1979, 42, 32-38.
- Psathas, G. Toward a theory of occupational choice for women. Sociology and Social Research, 1968, 52, 253-268.
- Punch, K. and Sheridan, B. Determinants of aspiration in secondary school students. The Journal of Educational Administration, 1978, 16(2), 175-187.
- Richling, J. The adult woman: A new challenge for career planning and placement. Journal of College Placement, 1979, 39, 36-40.
- Roach, R. M. "Honey, won't you please stay home." Personnel and Guidance Journal, 1976, 55, 86-89.
- Roe, A. Early determinants of vocational choice. Journal of Counseling Psychology, 1957, 4, 212-217.
- Roe, A. and Siegelman, M. The Origins of Interests. Washington: American Personnel and Guidance Association, 1964.
- Shaffner, S. and Klemer, R. Parent education for the parental role in children's vocational choices. Family Coordinator, 1973, 22, 419-426.
- Skinner, B. P. Verbal Behavior. New York: Appleton-Century Crofts, 1957.
- Sorensen, J. and Winters, C. J. Parental influences on women's career development. In S. H. Osipow (Ed.), Emerging Woman, Columbus, Ohio: Charles Merrill Publishing Co., 1975.
- Sostek, A. B. The relation of identification and parent-child climate to occupational choice. (Doctoral Dissertation, Boston University). Ann Arbor, Michigan: University Microfilm, 1963, No. 63-6646.
- Stevens, S. and Marquette, R. P. Women on the move. Journal of College Placement, 1979, 39, 43-44.
- Super, D. A theory of vocational development. American Psychologist, 1953, 8, 185-195.

- Switzer, D., Gregg, A., Muller, J. and Young, M. Early experiences and occupational choice, a test of Roe's hypothesis. Journal of Counseling Psychology, 1962, 9, 45-48.
- Tenzer, A. Parental influences on the occupational choice of career women in male-dominated and traditional occupations. Dissertation Abstracts International, 1977, 38(4-A), 2014.
- Tittle, C. K. and Denker, E. R. Re-entry women: A selective review of the educational process, career choice and interest measurement. Review of Educational Research, 1977, 47(4), 531-584.
- U.S. Bureau of the Census. School enrollment - social and economic characteristics of students: October, 1974. Current Population Reports, Washington, D.C.: U.S. Government Printing Office, 1975.
- Venerable, W. Parental influence on college and vocational decisions. Journal of the National Association of College Admissions Counselors, 1974, 19, 9-21.
- Vetter, L. Career Counseling for Women. In S. L. Hansen and R. S. Rapoza (Eds.). Career Development and Counseling of Women. Springfield, Illinois: Charles Thomas, 1978.
- Vetter, L., Sechler, J., Lowry, C. M., and Canora, V. Factors influencing non-traditional vocational education enrollments: A literature review. National Center Publications, Ohio State University, Columbus, Ohio, 1979.
- Wilson, M. L. A study of the familial and career attitudes of college women enrolled in typical and atypical programs, 1977.
- Winters, C. J. and Sorensen, J. Individual factors related to career orientation in women. In S. H. Osipow (Ed.), Emerging Woman, Columbus Ohio: Charles Merrill Publishing Co., 1975.
- Wolfson, K. T. P. Career development of college women. (Doctoral dissertation, University of Minnesota) Ann Arbor, Michigan: University Microfilms, 1972. No 72-20, 160.

Women's Bureau, U.S. Department of Labor. Twenty facts on women workers. Washington, D.C.: Women's Bureau, 1972.

Women's Bureau, U.S. Department of Labor. The myth and the reality. Washington, D.C.: Women's Bureau, 1974.

Zytowski, D. G. Toward a theory of career development for women. Personnel and Guidance Journal, 1969, 47, 660-664.

Appendix A  
COVER LETTER

Dear \_\_\_\_\_,

As part of my dissertation research I am studying the effects of family background on career choices in college students. Your name has been selected as part of a sampling procedure. Your participation is totally voluntary and you are free to withdraw at any time.

The enclosed questionnaire contains questions on family occupations, work status and your own career aspirations. This is a most vital part of my research project and your cooperation will be greatly appreciated.

The questionnaire should not take more than 20 minutes of your time and a pre-addressed postage-paid envelope is enclosed for your convenience.

Confidentiality will be maintained by coding all questionnaires by student number only.

If you have any questions about the research or are interested in the results of this study, please contact me at 961-7657. I will be happy to furnish whatever information I can.

Thank you again for your assistance.

Sincerely,

Terri Eisler

**Appendix B**  
**QUESTIONNAIRE**

**CAREER CHOICES**

1. Identification No. \_\_\_\_\_
2. Your age today? \_\_\_\_\_
3. Date of birth? \_\_\_\_\_
4. Race \_\_\_\_\_

**Please check one:**

5. What college are you enrolled in?  
\_\_\_\_\_ 1) Agriculture and Life Sciences  
\_\_\_\_\_ 2) Architecture and Urban Sciences  
\_\_\_\_\_ 3) Arts and Sciences  
\_\_\_\_\_ 4) Business  
\_\_\_\_\_ 5) Education  
\_\_\_\_\_ 6) Engineering  
\_\_\_\_\_ 7) Home Economics  
\_\_\_\_\_ 8) Veterinary Medicine

6. What is your academic major?  
\_\_\_\_\_

7. What is your current marital status?  
\_\_\_\_\_

8. How many children do you have?  
\_\_\_\_\_

9. What is the age of your oldest child?  
\_\_\_\_\_

10. What is the age of your youngest child?

---

11. If married, how old is your spouse?

---

If you are returning to school after an absence of 5 years or more, please answer the following:

12. How long has it been since you last attended an educational institution? (This includes high school, 2 or 4 year college, vocational/technical institution, or a university).

---

Please check one:

13. What type of institution was it?

- 1) High School
- 2) 2-year College
- 3) Vocational/Technical School
- 4) 4-year College
- 5) University

14. Current class standing or degree level:

- 1) Freshman
- 2) Sophomore
- 3) Junior
- 4) Senior
- 5) Masters
- 6) Doctorate
- 7) Other, please specify \_\_\_\_\_

15. Religion

- 1) Protestant
- 2) Catholic
- 3) Jewish
- 4) Other, please specify \_\_\_\_\_

16. Do you live

- 1) At home with your parents
- 2) In a residence hall
- 3) In an apartment
- 4) With relatives other than parents
- 5) With spouse
- 6) Other, please specify \_\_\_\_\_

17. Exact grade point average

---

Please check one:

18. What is the highest level of educational attainment of your father?

- \_\_\_\_\_ 1) 8th grade or less
- \_\_\_\_\_ 2) less than high school
- \_\_\_\_\_ 3) high school graduate
- \_\_\_\_\_ 4) 1-2 years of college
- \_\_\_\_\_ 5) 3-4 years of college
- \_\_\_\_\_ 6) college graduate
- \_\_\_\_\_ 7) post graduate training
- \_\_\_\_\_ 8) masters degree
- \_\_\_\_\_ 9) graduate training above masters
- \_\_\_\_\_ 10) doctorate

19. What is the current occupational status of your father?  
(If retired check predominant status while employed.)

- \_\_\_\_\_ 1) Professional, technical & managerial (lawyer, teacher, doctor, religious leader, administrator)
- \_\_\_\_\_ 2) Clerical and sales (stenography, book-keeping, salesman)
- \_\_\_\_\_ 3) Service (domestic, food and beverage preparation, protective services, barber, hairdresser)
- \_\_\_\_\_ 4) Farming, fishing, forestry (hunting, trapping & other agricultural service occupations)
- \_\_\_\_\_ 5) Processing occupations (steelworker, foundry worker, food processor, baker, canner)
- \_\_\_\_\_ 6) Machine trades (printing, textiles, woodworking, tool & dye maker)
- \_\_\_\_\_ 7) Bench work (factory, assembly line worker, watchmaker, etc.)
- \_\_\_\_\_ 8) Structural work (welder, plasterer, painter, bricklayer, excavator)
- \_\_\_\_\_ 9) Unemployed

Please check one:

20. What is the current income level of your father? (If retired check the one that applied while employed.)

- \_\_\_\_\_ 1) under \$5,000/year
- \_\_\_\_\_ 2) \$5,000-\$9,999/year
- \_\_\_\_\_ 3) \$10,000-\$14,999/year
- \_\_\_\_\_ 4) \$15,000-\$19,999/year
- \_\_\_\_\_ 5) \$20,000-\$24,999/year
- \_\_\_\_\_ 6) \$25,000-\$29,999/year
- \_\_\_\_\_ 7) \$30,000-\$34,999/year
- \_\_\_\_\_ 8) \$35,000-\$39,999/year
- \_\_\_\_\_ 9) \$40,000 and above/year

21. How many hours a week does your father work? (If retired, indicate the one that applied while employed.)

---

22. Were there any periods of time when you were growing up during which your father did not work? (Check only one statement.)

- \_\_\_\_\_ 1) Preschool
- \_\_\_\_\_ 2) Elementary school
- \_\_\_\_\_ 3) Junior high
- \_\_\_\_\_ 4) High school
- \_\_\_\_\_ 5) College
- \_\_\_\_\_ 6) He never worked
- \_\_\_\_\_ 7) He worked only sporadically or for less than 6 month intervals at one time
- \_\_\_\_\_ 8) No - he always worked

23. What is the highest level of educational attainment of your mother?

- \_\_\_\_\_ 1) 8th grade or less
- \_\_\_\_\_ 2) less than high school
- \_\_\_\_\_ 3) high school graduate
- \_\_\_\_\_ 4) 1-2 years of college
- \_\_\_\_\_ 5) 3-4 years of college
- \_\_\_\_\_ 6) college graduate
- \_\_\_\_\_ 7) post graduate training
- \_\_\_\_\_ 8) masters degree
- \_\_\_\_\_ 9) graduate training above masters
- \_\_\_\_\_ 10) doctorate

Please check one:

24. What is the current occupational status of your mother? (If retired, please check the type of work she performed when she was employed.)
- 1) Professional, technical & managerial (lawyer, teacher, doctor, religious leader, administrator)
  - 2) Clerical and sales (stenography, book-keeping, salesman)
  - 3) Service (domestic, food and beverage preparation, protective services, barber, hairdresser)
  - 4) Farming, fishing, forestry (hunting, trapping & other agricultural service occupations)
  - 5) Processing occupations (steelworker, foundry worker, food processor, baker, canner)
  - 6) Machine trader (printing, textiles, woodworking, tool & dye maker)
  - 7) Bench work (factory, assembly line worker, watchmaker, etc.)
  - 8) Structural work (welder, plasterer, painter, bricklayer, excavator)
  - 9) Unemployed
  - 10) Housewife
25. What is the current income of your mother? (If retired, check one that applied while employed.)
- 1) under \$5,000/year
  - 2) \$5,000-\$9,999/year
  - 3) \$10,000-\$14,999/year
  - 4) \$15,000-\$19,999/year
  - 5) \$20,000-\$24,999/year
  - 6) \$25,000-\$29,999/year
  - 7) \$30,000-\$34,999/year
  - 8) \$35,000-\$39,999/year
  - 9) \$40,000 and above/year
26. How many hours a week does your mother work? (If retired, how many hours did she work when she was employed?)
-

Please check one:

27. Were there any periods of time while you were growing up, during which your mother did not work? (Check only one statement.)
- 1) Preschool  
 2) Elementary school  
 3) Junior high school  
 4) High school  
 5) College  
 6) She never worked  
 7) She worked only intermittently or sporadically, i.e. for less than 6 months at one time  
 8) No, she always worked.
28. What is your current career or occupational choice (i.e. what type of job or vocation are you planning to enter?) Please be specific.
- 

A series of statements is presented on the following four pages. Please read each statement carefully, and indicate the extent to which you agree or disagree with each of these statements, according to the key below:

1	2	3	4	5	6	7
disagree very strongly	disagree strongly	disagree	neutral	agree	agree strongly	agree very strongly

For example, if you "disagree strongly" with a particular statement, place the number 2 in the space provided at the end of that statement. If you "agree" with a statement, place the number 5 in the corresponding space.

Answer all items as honestly as you can.

	1	2	3	4	5	6	7	
	disagree very strongly	disagree strongly	disagree	neutral	agree	agree strongly	agree very strongly	
29.	I received much approval from my father for good grades in high school.						29.	_____
30.	My father encouraged me to take college courses that were stimulating and challenging to me, even though these courses were not always easy.						30.	_____
31.	My father felt that it was more important for me to have a family of my own than to have a career.						31.	_____
32.	To encourage me in my own goals, my father often cited the accomplishments of successful career women.						32.	_____
33.	My father felt that a high school education, or maybe one or two years of college, was enough schooling for me.						33.	_____
34.	The honors and awards that I received throughout my school years were a source of pride to my father.						34.	_____
35.	My father disapproved of the career goals I set for myself.						35.	_____
36.	As an adolescent, I felt that my social activities were more important to my father than my school work.						36.	_____
37.	Even when I was in elementary school, my father was proud of my grades.						37.	_____
38.	My father encouraged me to select a career that few women might choose to pursue.						38.	_____
39.	It was important to my father that I maintain a high academic average in college.						39.	_____
40.	I received no encouragement from my father to go on to college.						40.	_____

1	2	3	4	5	6	7	
disagree very strongly	disagree strongly	disagree	neutral	agree	agree strongly	agree very strongly	
41.	It was important to my father that I choose a satisfying career, even though many years of preparation might be required.					41.	_____
42.	My father discouraged my going into a field of work that is highly competitive and demanding					42.	_____
43.	My father felt that personal satisfaction, rather than financial security, should be my primary consideration in choosing a career.					43.	_____
44.	My mother felt that a high school education, or, at most, a two year college program, was sufficient schooling for me.					44.	_____
45.	As I remember, my good grades in elementary school were a source of pride to my mother.					45.	_____
46.	My mother discouraged me from taking easy courses just to get through school, for she felt that the college courses should be challenging to me.					46.	_____
47.	As a teenager, I felt that my school work was less important to my mother than good times with friends.					47.	_____
48.	My mother encouraged me to strive for a career where I would be one of the few women in the field.					48.	_____
49.	My mother felt that a career was less important than raising a family of my own.					49.	_____
50.	It was important to my mother that I pursue a challenging career, even though many years of study might be required to accomplish this goal.					50.	_____
51.	My mother was very proud of the good grades I earned in high school.					51.	_____

1	2	3	4	5	6	7	
disagree very strongly	disagree strongly	disagree	neutral	agree	agree strongly	agree very strongly	
52.	My mother discouraged me from pursuing a career that is highly competitive and requires much effort on my part.					52.	_____
53.	It was unimportant to my mother that I go to college.					53.	_____
54.	My mother often talked enthusiastically to me about women who had made successful careers for themselves.					54.	_____
55.	It meant a great deal to my mother that I receive good grades in college.					55.	_____
56.	My mother disapproved of the career interests that I expressed.					56.	_____
57.	It was more important to my mother that I derive personal satisfaction from my work, rather than focus primarily on the financial security the career might afford.					57.	_____
58.	The special awards that I received in school over the years were a source of pride to my mother.					58.	_____
59.	My father felt that it was important for females to achieve success in school.					59.	_____
60.	My father felt that it was just as important for a woman to have a career as a man.					60.	_____
61.	My father approved of women working outside the home.					61.	_____
62.	My father approved of my mother's past employment.					62.	_____
63.	My father felt that women should receive the same satisfactions and rewards from their jobs as men.					63.	_____
64.	My father felt that raising a family was more important than a career for most women.					64.	_____

1	2	3	4	5	6	7	
disagree very strongly	disagree strongly	disagree	neutral	agree	agree strongly	agree very strongly	
65.	It was important to my father that my mother stay home and raise a family rather than work.					65.	_____
66.	My father often said that women need not strive for the same career goals as men, nor work as hard as men.					66.	_____
67.	My father believed that social activities are more important for women than men.					67.	_____
68.	It was my father's belief that academic success was much less important for females than for males.					68.	_____
69.	My mother believed that academic achievement was just as important for females as it was for males.					69.	_____
70.	My mother often cited the accomplishments of successful career women.					70.	_____
71.	My mother felt that career satisfaction was just as important for women as it was for men.					71.	_____
72.	My mother disapproved of women working outside the home.					72.	_____
73.	My mother stressed social achievements and activities above academic ones for women.					73.	_____
74.	My mother believed that women should not aspire to careers equal to that of men, but should be satisfied taking care of a home and family.					74.	_____
75.	My mother believed that her job satisfaction was just as important as my father's.					75.	_____
76.	My mother preferred raising a family to working outside the home.					76.	_____

## VITA

Name: Terri Arlene Eisler

Birthplace: The Bronx, New York

### Education

Ph.D. Virginia Polytechnic Institute and State University,  
Blacksburg, Virginia. August, 1981.

M.A. University of Denver, Denver, Colorado. June, 1969.

B.A. State University of New York at Buffalo, Buffalo,  
New York. February, 1967.

### Professional Experience

1980 - 1981 Assistant Director, Center of Gerontology,  
Virginia Polytechnic Institute and State  
University, Blacksburg, Virginia.

1976 - 1978 Private Practice, Psychiatric Services,  
Brandon, Mississippi.

1971 - 1976 Director of Counseling, Interim Education  
Center, University of Mississippi Medical  
Center, Jackson, Mississippi.

1970 - 1971 Liaison Counselor, Mississippi Vocational  
Rehabilitation for the Blind, Jackson,  
Mississippi.

1969 - 1970 Counselor, Community College of Denver,  
Denver, Colorado.

*Terri A. Eisler*

PARENTAL INFLUENCE ON THE CAREER CHOICES OF WOMEN:  
SOME COHORT DIFFERENCES

BY

Terri A. Eisler

(ABSTRACT)

Social learning theory was used as the framework to investigate parental influences on the career choices of women. Parental modeling, reinforcement patterns, and attitudes were examined for their effect on the career choices of three groups of women: college age traditional, college age non-traditional, and re-entry women. The rationale for selecting these groups was that traditional and non-traditional college age females would represent the impact of diverse parental factors, and that an older re-entry group would demonstrate the effects of time on parental models, attitudes, and reinforcement patterns. Group membership would then affect subsequent career choices.

A mail-in questionnaire was used to survey career choice, individual and family demographics, and the respondents' perceptions of parental modeling, reinforcement patterns,

and attitudes. One hundred and five females, enrolled in a southwestern Virginia university, responded to the questionnaire. Multiple regression analyses indicated that group membership was the only variable that contributed to the variance in career choice in a statistically significant manner. Further data analyses provided information regarding the differential effects of parental factors on group membership. Overall college age females observed that they had received higher amounts of parental reinforcement for academic and career aspirations than the re-entry women. Furthermore, these college age females also perceived their parents as more approving of female academic and career achievements than the parents of re-entry women.

In view of the low variance scores associated with the contribution of parental variables to female career choices, it was concluded that for this sample, group membership and other social learning factors were more influential. Future investigations dealing with the impact of learning experiences, and other environmental factors in conjunction with parental factors were proposed.