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A study of the relationships of parents' locus of control and child-rearing attitudes to children's locus of control

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Strate, Mary Margaret

**A STUDY OF THE RELATIONSHIPS OF PARENTS' LOCUS OF CONTROL
AND CHILD-REARING ATTITUDES TO CHILDREN'S LOCUS OF CONTROL**

The College of William and Mary

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A STUDY OF THE RELATIONSHIPS OF
PARENTS' LOCUS OF CONTROL AND CHILD-REARING ATTITUDES
TO CHILDREN'S LOCUS OF CONTROL

A Dissertation
Presented to
The Faculty of the School of Education
The College of William and Mary

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Mary Margaret Strate

May 1987

APPROVAL SHEET

We the undersigned do certify that we have read this dissertation and that in our individual opinions it is acceptable in both scope and quality as a dissertation for the degree of Doctor of Education.

Accepted May 1987 by


Roger R. Ries, Ph.D., Chairman


P. Michael Politano, Ph.D.


Charles O. Matthews, II, Ph.D.

DEDICATION

This study is dedicated to my family and to the memory of my father to whom the acquisition of knowledge was a lifelong endeavor.

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As a doctoral candidate I am greatly indebted to all of the members of my doctoral committee. Dr. Roger Ries, my advisor, has helped me over the hurdles encountered in the process of graduate study and has always been flexible and supportive. Dr. Chuck Matthews has taught me to appreciate the extent of human potential and has provided me with the impetus to continue to strive for completion. I greatly appreciate the assistance of Dr. Mike Politano, who has invested much time and effort in this research project and who has challenged me to do my best throughout this learning experience.

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Chapter I

Introduction

Justification for the Study

During the past three decades, much research attention has been focused on the internal-external locus of control construct derived from Rotter's (1954, 1966) Social Learning Theory. Locus of control refers to the extent to which individuals believe that reinforcement is causally related to their own behavior. At one extreme are "internals" who perceive the reinforcements they receive as a function of their own behavior or characteristics. At the other extreme are "externals" who perceive the reinforcement they experience as a function of external agents, such as fate, chance, luck, or powerful others (Rotter, 1982).

Locus of control in adults has been found to be related to a variety of social, emotional, and cognitive variables such as academic achievement, information processing, social influence, psychological adjustment, assertiveness, and health-related behavior (Joe, 1971; Lefcourt, 1982; Strickland, 1977).

Similar findings have been reported in the research literature with children. In Gilmore's (1978) integrative review of the research literature on children's locus of control orientations and adaptive behavior, an internal

locus of control was found to be correlated with cognitive variables such as efficient utilization of information from the environment, inquisitiveness, effective problem solving, creativity, and academic achievement. Significant correlations between children's locus of control and social and emotional variables were also reported by Gilmor. Self-esteem, persistence with difficult tasks, delay of gratification, and effective interpersonal skills have all been correlated with an internal locus of control (Gilmor, 1978). Since 1976, studies have revealed that an internal locus of control orientation in children is associated with cooperative rather than competitive preferences (Stockdale, Galejs, & Wolins, 1983) and with low levels of anxiety (Ollendick, 1977).

In spite of the abundance of studies which relate locus of control to affective and cognitive variables, it is still uncertain how locus of control orientations develop (Phares, 1984). As Phares suggests, Rotter devotes little time to questions of development in his Social Learning Theory. However, it has been determined that locus of control orientation is established during childhood and varies little from third through twelfth grades (Crandall, Katkovsky, & Crandall, 1965). Researchers have hypothesized, therefore, that possible antecedents to developing a locus of control orientation might be found in

the parent-child relationship (Barling, 1982; Crandall, Katkovsky, & Crandall, 1965; MacDonald, 1971).

The importance of the parent-child relationship has been recognized for centuries. Initially, the majority of advice concerning parenting was passed down informally from generation to generation (Hamner & Turner, 1985). Today, however, parents are combining parenthood with many other roles, and are often unable to convey effective parenting skills to their children (Hamner & Turner, 1985). As a result, many programs for parent education, training, and counseling have evolved over the past several decades. However, as Dembo, Sweitzer, and Lauritzen (1985) suggest, the goals, formats and materials of these parenting approaches differ widely. In their integrative review of parent education programs, Dembo et al. (1985) report varying degrees of parental change following parenting programs, based in part on the specific theoretical and practical emphases of the programs. Thus, a major problem in training for parenthood today appears to be the lack of agreement as to what constitutes an effective parent, or what set of competencies or attitudes will generate the most positive parent-child interactions and desired child behaviors (Hamner & Turner, 1985).

According to Martin (1975), the early impetus in this century for the study of effective versus ineffective

parenting derived from research on the child-rearing attitudes and characteristics of parents of emotionally disturbed and delinquent children. After reviewing the studies to that time, Symonds (1939) proposed that parental attitudes might be divided into the dimensions of acceptance-rejection and dominance-submission. Schaefer (1965) developed a children's report measure of parental attitudes based on these dimensions which he termed love-hostility and control-autonomy. In 1967, Peterson and Migliorino used a parent interview and found similar factors (affection and control) in both Sicilian and American parents. More recently, Rohner and Rohner (1981) used ethnographical coding procedures in a cross-cultural study which showed parental warmth (acceptance-rejection) and parental control (permissiveness-restrictiveness) to be dimensions operating in all human societies.

Statistically significant correlations between these parental dimensions and children's locus of control orientations have been reported. Katkovsky, Crandall, and Good (1967) studied children aged 6 through 12 and found internality related to perceived parental nurturance while externality was related to a high degree of perceived parental control. In studies of college students' perceptions of parents by Davis and Phares (1969) and MacDonald (1971), internality was found to be related to

perceived acceptance and autonomy while externality was related to perceived rejection and a high degree of perceived control.

Recent studies suggest that an additional parent variable to consider in predicting the child's locus of control is the parent's locus of control. Chandler, Wolf, Cook, and Dugovics (1980) and Barling (1982) included the parents' locus of control as a variable in conjunction with the warmth and control dimensions. Barling's study, however, included only mothers. In addition, the locus of control measures used to assess parents' and children's locus of control orientations were non-corresponding measures of locus of control scales. A regression analysis to determine the relative importance of the parent variables was not attempted. The Chandler et al. study found differences in attitudes between parents of "internals" and "externals" on parents' self-report measures, but no differences were found between the two groups when child report measures were analyzed. While significant correlations were found in Chandler et al.'s study, no attempt was made to determine the relative importance of the various parental dimensions in predicting the child's locus of control.

Statement of the Problem

The purpose of this study was to investigate the relationship between children's locus of control and parental locus of control and attitudes toward warmth and control in child-rearing. The degree to which the parent variables are related to the child's locus of control and to other parent variables might then be helpful in suggesting specific emphases for parent training or counseling.

As recent research suggests, the relationship between parental variables and children's locus of control orientations may vary according to the sex of the child (Nowicki & Segal, 1974) and according to the sex of the parent (Chandler et al., 1980). Consequently, the children's locus of control scores in this study were examined separately by gender. The three parent variables of locus of control, warmth, and control were also examined separately by gender of the parent.

The general research question addressed here was:
What is the relationship between children's locus of control, parental locus of control, and parental attitudes toward warmth and control in child-rearing?

Theoretical Rationale

The locus of control construct which was examined in this study is derived from Rotter's (1954, 1966) Social

Learning Theory. Social Learning Theory was developed as an attempt to account for and predict human behavior in relatively complex situations. It holds that there is no "true" reality, but only an individual's personal construction of it (Phares, 1984). While Social Learning Theory focuses on the individual's personal construction of reality, which is covert, it also acknowledges the importance of external, observable events, which are overt. External events are viewed as important as humans are basically motivated to strive for reinforcement and avoid punishment. Through conditioning and learning, Rotter (1966) proposes that an individual builds up repertoires of behaviors to be used in various situations. Thus, Social Learning Theory utilizes both a cognitive (expectancy) component and a motivational (reinforcement) component in its model for explaining and predicting behavior.

It is within the cognitive (expectancy) construct that the locus of control concept fits. The expectancy construct is a generalized expectancy for reinforcement or success. The locus of control concept is a more specific expectancy for either internal or external control of reinforcements. This locus of control concept was utilized in this study to ascertain the degree to which children's locus of control orientations are related to parental locus of control orientations and warmth and control in child-rearing.

Definition of Terms

1. Warmth Dimension-a parenting dimension referring to the degree to which parents display acceptance-rejection or love-hostility to their children.
2. Control Dimension-a parenting dimension referring to the degree to which parents use control in child-rearing. This continuum is also referred to as permissiveness-restrictiveness or autonomy-control.
3. Locus of Control (LOC)-a generalized attitude or belief concerning the degree to which individuals believe that reinforcement is causally related to their own behavior.
4. Internals-Individuals who generally perceive the reinforcements they receive as a function of their own behavior or characteristics.
5. Externals-Individuals who generally perceive the reinforcements they experience as a function of external agents, such as fate, chance, luck, or powerful others.

Research Hypotheses

This study tested the following specific hypotheses:

1. There will be a significant relationship between children's locus of control scores and their parents' locus of control, warmth, and control scores. Specifically;
 - a. Children with internal locus of control scores will have parents with high warmth, low control, and internal

locus of control scores.

b. Children with external locus of control scores will have parents with low warmth, high control, and external locus of control scores.

2. The order of influence of the three parent variables from most to least will be: warmth, control, locus of control.

3. Children's locus of control scores, regardless of gender, will correlate more highly with their mothers' locus of control scores than with their fathers'.

4. Female children's locus of control scores, regardless of direction, will correlate more highly with their parents' locus of control scores than will male children's.

Sample and Procedure

The subjects of this study were students attending fourth, fifth, or sixth grade in the York County Public Schools (VA) and their parents. The sample consisted of volunteers from middle- to upper-socioeconomic two-parent homes.

Following advertisement of the study through the PTA, a letter was sent home with students explaining the study, alerting the parents to forthcoming information, and requesting their participation. The students were also informed of the study and requested to participate. The

parents then received the three parent questionnaires to complete and return along with the permission forms allowing their children to participate. Upon receipt of these completed questionnaires and permission forms, the children completed the locus of control measure.

The data collected was then organized according to students' gender and locus of control scores. Four groups were derived: internal males, external males, internal females, and external females. The measures were examined by correlational analysis to determine the relationship of the variables and then further analyzed using parental variables in a stepwise regression procedure against locus of control scores for each of the four subject groups.

Limitations of the Study

One of the limitations of this study was the use of volunteer subjects. As Borg and Gall (1983) indicate, volunteer subjects are likely to be a biased sample of the target population since volunteers have been found to be higher in social class and better educated than nonvolunteers. However, as the results of this study are largely applicable to middle-class parents who volunteer for parent education groups, it is felt that this limitation is minor.

Another limitation of this study was the inability to

control for every variable which may contribute to variance in a child's locus of control score. Factors such as illness, adoption, or other social or emotional influences may have an impact on a child's locus of control orientation although these variables cannot be totally accounted for in this descriptive study.

One issue which limits the generalizability of this study is the restriction of just using children from two-parent families. This exclusion of subjects, however, was thought to be necessary due to the possible differences in child-rearing attitudes and locus of control in single parents, especially those who have been recently separated or divorced.

Ethical Considerations

While no direct intervention was attempted in this study, it is the opinion of the researcher that investigation of an area such as parenting attitudes is a very sensitive one. Therefore, every possible precaution was taken to protect the subjects involved and to ensure the confidentiality of the data obtained. The proposal for study was reviewed by the Human Subjects Research Committee at the College of William and Mary, as well as by the research committee in York County Public Schools, prior to collection of the data. Following approval from these

officials, participant consent of parents involved in the study and parental consent for children involved in the study was obtained. Responses of parents and children were coded to ensure confidentiality of responses. Following the study, the results were made available to the participating school system and to the participants by way of a PTA-sponsored seminar on parenting skills.

Chapter II

Review of the Literature

Summary of the Problem

During the past three decades, much research attention has been focused on the locus of control construct derived from Rotter's (1954, 1966) Social Learning Theory. In both adult and child populations, locus of control has been correlated with a variety of cognitive, social and emotional variables. Internality has generally been associated with academic achievement, efficient information processing, psychological adjustment, creativity, cooperative preferences, and low levels of anxiety. Despite the abundance of studies relating locus of control to these characteristics, it is still uncertain how locus of control beliefs are developed. However, it has been demonstrated that locus of control beliefs are developed during childhood. Thus, researchers have examined the parent-child relationship for possible antecedents to locus of control.

The importance of the parent-child relationship has been recognized for centuries. However, until recently, parenting skills were generally "taught" informally by being passed down from generation to generation. Recently there has been a trend toward more formal parent training and education. A major problem with parent education, however,

is the lack of agreement by parent educators as to what constitutes an effective parent.

Research identifying characteristics of effective and ineffective parents began early in the 1900's with studies of parents of emotionally disturbed and delinquent children (Burt, 1929; Glueck & Glueck, 1934; Symonds, 1939). From these early studies, the parent dimensions of warmth and control emerged. These parental dimensions have been shown to be present cross-culturally and have remained consistent over time.

Research focusing on the warmth and control dimensions suggests that these parenting dimensions are related to children's locus of control orientations (Gordon et al., 1981; MacDonald, 1971). A third variable which has also been shown to be related to children's locus of control orientations is parental locus of control. Recent studies by Chandler et al. (1980) and Barling (1982) have investigated the relationship between these three variables and children's locus of control, although no studies have attempted to determine the relative importance of these three variables in relation to the child's locus of control orientation. Thus, the purpose of this study was to investigate the relationship between children's locus of control orientations and their parents' locus of control orientations and attitudes toward warmth and control in

child-rearing.

Theoretical Rationale

The theoretical basis for this investigation of locus of control and parental attitudes is Rotter's (1954, 1966) Social Learning Theory. This theory was developed over the past 35 years by Rotter in collaboration with his students and other colleagues (Phares, 1984). Social Learning Theory was developed as an attempt to account for and predict human behavior in relatively complex social situations. In Rotter's words, it is a "social learning theory because it stresses the fact that the major or basic modes of behaving are learned in social situations and are inextricably fused with needs requiring for their satisfaction the mediation of other persons" (Rotter, 1954, p. 84). Social Learning Theory utilizes both an expectancy (cognitive) component and a reinforcement (motivational) component. In some ways, Social Learning Theory may be viewed as an attempt to integrate two diverse trends in American psychology--the reinforcement theories and the cognitive theories (Rotter, Chance, & Phares, 1972).

Rotter's Social Learning Theory holds that there is no "true" reality, but only an individual's personal construction of it (Phares, 1984). Thus, while Rotter focuses on subjective events, such as individuals'

perceptions of reality, he also recognizes the importance of external events. He views external events as significant as humans are basically motivated to strive for positive reinforcement and avoid punishment. Through conditioning and learning, he assumes that individuals build up repertoires of behavior to be used in various situations. Which of these repertoires of behaviors will be chosen in which situations is the major concern of Social Learning Theory.

In Social Learning Theory, four basic concepts are utilized in the prediction of behavior (Phares, 1984). These concepts are: behavior potential, expectancy, reinforcement value, and psychological situation.

Behavior potential (BP) is the potential for a given behavior to occur in a given situation as calculated in relation to a reinforcement or set of reinforcements (Rotter et al., 1972). This implies the possibility of predicting the likelihood of a behavior occurring in relation to other alternative behaviors open to the individual.

The Social Learning Theory concept of behavior is very broad. Behavior, according to Social Learning Theory, may be that which is directly observed and also that which is implicit or indirect. Thus, behavior includes verbal reactions, nonverbal reactions, emotional reactions, cognitions, etc.

The second basic concept utilized in the prediction of behavior is expectancy. Expectancy (E) refers to the probability held by the individual that a particular reinforcement will occur as a function of a specific behavior on his part in a specific situation (Rotter et al., 1972). Expectancy, as defined by this theory, is independent of the value or importance of reinforcement. It is subjective probability on the part of the individual, not necessarily the "real" probability of the behavior occurring. The concept of expectancy is Rotter's cognitive variable.

Reinforcement value is the third basic concept. The reinforcement value (RV) of any one group of potential reinforcements is the degree of an individual's preference for that reinforcement to occur if the possibility of all alternative reinforcements occurring is equal (Rotter et al., 1972). The value of this reinforcement is assumed to be determined by the expectancy that this specific reinforcement will lead to other reinforcers of value (Phares, 1984). This concept is Rotter's motivational component.

The fourth concept used in predicting behavior is the psychological situation. The psychological situation (S) is defined as the situational context in which behavior occurs (Rotter et al., 1972). This is similar to the concept of a

stimulus in behavior modification. However, as an individual reacts selectively to many kinds of stimulation, both internal and external, and because different aspects of one's environment mutually affect each other, this term is a broader concept than stimulus (Rotter et al., 1972).

The four basic concepts of Social Learning Theory can be integrated by the following formula used to predict behavior:

$$BP_{x,s1,ra} = f(Ex,ra,s1 + RV_{a,s1})$$

This formula may be read as follows: "The potential for behavior x to occur in situation 1 in relation to reinforcement a is a function of the expectancy of the occurrence of reinforcement a following behavior x in situation 1 and the value or reinforcement a in situation 1" (Rotter et al., 1972, p. 14).

This formula, however, deals with very specific behaviors in relation to single reinforcers. More often the psychologist or educator is interested in predicting classes of behavior. For these purposes, and to reduce verbal complexity, Rotter presented this more general formula with broader concepts:

$$NP = f(FM + NV)$$

This formula suggests that the potential for the occurrence of a set of behaviors (need potential or NP) that lead to the satisfaction of a certain need is a function of:

1) the expectancies (freedom of movement or FM) that these behaviors will lead to those goals and 2) the value of those goals constituting the need (need value or NV) (Phares, 1984). The fourth variable, situation, is left implicit in the formula (Rotter et al., 1972).

The concept need potential (NP) is the broader analogue of behavior potential. Need potential refers to groups of functionally related behaviors rather than single behaviors. Functional relatedness of behavior occurs when several behaviors are directed toward obtaining similar reinforcements. Thus, need potential refers to the mean potentiality of a group of functionally related behaviors occurring in an individual's life.

Need value (NV) refers to the mean preference value of a set of functionally related behaviors. It is the broader analogue of reinforcement value. Where reinforcement value indicates a preference for one reinforcement over others, need value indicates a preference for one set of functionally related reinforcements over another set.

Freedom of movement (FM) is defined as "the mean expectancy of obtaining positive satisfactions as a result of a set of related behaviors directed toward obtaining a group of functionally related reinforcements" (Rotter et al., 1972, p. 34). This concept is the more general analogue of expectancy. An individual's freedom of movement

is low if he has a high expectancy of failure or punishment as a result of the behaviors with which he tries to obtain the reinforcements that constitute that particular need (Rotter, 1954). It is to this freedom of movement concept that the construct of locus of control is related. Freedom of movement is a generalized expectancy of success or reinforcement. Locus of control is a more specific expectancy for either internal or external control of reinforcements.

Locus of control, according to Rotter (1966), is a generalized attitude, belief, or expectancy regarding the nature of the causal relationship between one's own behavior and its consequences, which may affect a variety of behavioral choices in a wide range of life situations. Lefcourt (1982), in attempting to clarify the concept of locus of control, suggests that it should not be regarded as an "omnibus trait similar to competence or intelligence, which pertains to every facet of human endeavor" (p. 183). Instead, he defines the locus of control construct as "a circumscribed self-appraisal pertaining to the degree to which individuals view themselves as having some causal role in determining specified events" (Lefcourt, 1982, p. 183). Lefcourt (1982) proposes viewing the locus of control construct as a method by which individuals construct interpretations of events which pertain to causality.

Research on the Locus of Control Construct

Development of Locus of Control

There is no clearly outlined progression for development of locus of control orientations in Social Learning Theory. As previously noted, Social Learning Theory deals mainly with the prediction of behavior in given situations. However, Rotter (1966) offered a brief theoretical explanation of how these orientations are acquired. He stated:

"In social learning theory, a reinforcement acts to strengthen an expectancy that a particular behavior or event will be followed by the reinforcement in the future. Once an expectancy for such a behavior-reinforcement sequence is built up the failure of the reinforcement to occur will reduce or extinguish the expectancy. As an infant develops and acquires more experience he differentiates events which are causally related to preceding events and those which are not. It follows as a general hypothesis that when the reinforcement is seen as not contingent upon the subject's own behavior that its occurrence will not increase an expectancy as much as when it is seen as contingent. Conversely, its nonoccurrence will not reduce any expectancy so much as when it

is seen as contingent. It seems likely that, depending upon the individual's history of reinforcement, individuals would differ in the degree to which they attributed reinforcement to their own actions" (p. 2).

Recent evidence may aid in developing a clearer picture of the developmental progression of locus of control orientations. Gunnar (1980) studied infants' responses at 6 months, 9 months, and 12 months to determine the age at which the infants recognized and exhibited control over their environments. He also investigated the extent to which their fear of a startling stimulus was related to their control over it. Gunnar (1980) cited evidence suggesting that when the infants (at approximately 12 months of age) learn that they have control over the fear-inducing stimulus, the fear is alleviated.

From these findings, Maccoby (1980) hypothesized that at approximately one year of age, children begin to understand that they can have an impact on their environment by responding or not responding. She further proposed that the years following provide children with an understanding of the control they have over certain events and also with the knowledge of events over which they have little control. Maccoby (1980) suggested that the degree of control learned in these early years is largely determined by the children's

perceptions of events as resulting from their own behavior or actions. In those early years, however, the degree of children's control is largely determined by others within the children's environment. Theoretically, then, children's locus of control orientations should tend to be more external in their preschool years, gradually growing more internal as children grow older and are able to assume more control over their environments. Indeed, this is what the empirical evidence seems to suggest.

Social Antecedents of Locus of Control

Phares (1976) noted that the general area of antecedents has been one of the more neglected facets of locus of control research. Lefcourt (1982) noted that it is an area still "ripe for exploration" (p. 131).

Most of the work on social antecedents has supported a relationship between locus of control and social class. Some studies have also suggested a relationship between locus of control and ethnicity. Phares' (1976) review indicated that Anglo-Americans are more internal than Asians, Spanish-Americans, Mexican-Americans, and Black Americans, and that lower socioeconomic status (SES) was associated with external beliefs. As he suggested, the foregoing evidence is consistent with the view that ethnic groups outside the dominant culture in America may not be

able to compete effectively for social status and power and may adopt a more external belief system (Phares, 1976). Gilmor's (1978) study lends support to Phares' hypothesis. Gilmor found that when social class is controlled for, few studies report significant ethnic or racial differences. Like Phares (1976), Gilmor pointed out that beliefs in external control may quite appropriately reflect the life situation of less advantaged individuals of the same or different race.

Change and Stability of Locus of Control

As early as 1965, Crandall et al. used the Intellectual Achievement Responsibility Questionnaire (IARQ) with children in grades 3 through 12 and found that the consistency of locus of control over time was moderately high. The test-retest reliability of their instrument, the IARQ, over a two-month period ranged from .66 to .74. In addition, Crandall et al. (1965) found that, for their sample of 923 students, no significant changes in locus of control orientations were evident in grades 3 through 12. However, a general trend was noted toward increasing internality with age, especially for females.

Similar results were also found by Nowicki and Strickland (1973) using their scale, the Children's Nowicki-Strickland Internal-External Scale (CNSIE).

Consistency over time was noted in locus of control beliefs, as was a significant trend toward increasing internality in grades 3 through 12.

As Phares (1976) has noted, there is little data on the relationship between age and locus of control. He suggested that longitudinal data is needed. Phares (1976) speculated that in addition to age, fairly common life experiences may affect locus of control. For example, he hypothesized that with advanced age or illness, individuals may become more external as they become less able to exert control over their environments. However, there is no longitudinal data at the present time which has attempted to verify trends in locus of control over an individual's life span.

In addition to the changes in locus of control orientations with the passage of time and natural changes in status, several studies have revealed changes in locus of control as a result of environmental events. Gorman (1968) found changes from internality to externality in McCarthy supporters following McCarthy's defeat at the 1968 Democratic Convention. McArthur (1970) reported changes toward externality in college students whose draft eligibility status was affected by the lottery. Those students whose eligibility remained the same did not show this move toward externality (McArthur, 1970). The findings of these studies should be considered quite cautiously, as

neither study employed a pretest but used comparisons to national norms or other comparable groups. While evidence has not been firmly established, there is some suggestion that shifts in locus of control occur with relevant environmental events. Whether these shifts are permanent, however, was not answered as follow-up data were not collected in these two studies.

Further evidence supporting the shifting of locus of control with changing life events was reported by Smith (1970). Smith examined locus of control scores of clients at a crisis intervention center upon admission and after six weeks of treatment focusing on crisis management. He found that within the six-week period, clients' scores shifted from an external to an internal direction. Smith suggested that these clients' regained feelings of ability to cope were reflected in their locus of control scores.

In addition to these environmentally produced changes in locus of control, some changes in locus of control have been reported resulting from programs designed specifically for that purpose. In 1971, Foulds found changes toward internality following eight-week group therapy sessions emphasizing affective expression, awareness of personal freedom, and responsibility. Foulds, Gunan, and Warehime (1974) also reported similar shifts in locus of control scores subsequent to a marathon group session characterized

as experiential-gestalt. Both of these studies used Rotter's (1966) Internal-External Scale.

Nowicki and Barnes (1973) designed a quasi-therapy summer camp program for deprived inner-city adolescents. The highly structured program utilized contingent reinforcement and affectance training and lasted for one week. The researchers found that at the end of one week, campers scored significantly more internally on the CNSIE than at the beginning of the week (Nowicki & Barnes, 1973). It should be noted, however, that the permanence of these changes is highly questionable due to the length of the treatment and the lack of follow-up data.

A less direct method of manipulating children's locus of control orientations was attempted by Williams, Omizo, & Abrams (1984). Using the Systematic Training for Effective Parenting program over a nine-week period, these researchers found not only changes in the child-rearing attitudes of the participating parents but also changes in locus of control scores of the children with whom no direct intervention was attempted. However, the results of this study must be interpreted cautiously due to the possible pretest effect and limited sample size.

Despite the limitations of these studies, the overall evidence seems to indicate that locus of control orientations can be altered, at least temporarily, by a

range of conditions both naturally occurring and contrived. Some of these conditions include factors which accompany age changes, world or national events, special training programs, and a variety of therapeutic techniques. However, there is little evidence regarding long-term persistence of observed change. Follow-up studies and longitudinal data will be necessary before conclusions in this regard can be drawn.

Measurement of Locus of Control in Adults

In early research on the locus of control construct, experiments generally consisted of measuring subjects' reactions to the lack of personal control by exposure to controllable vs. uncontrollable aversive stimulation (Phares, 1976). As greater concern for the welfare of human subjects arose, experiments were modified. Later experiments consisted of giving subjects "chance" or "skill" instructions (with varying degrees of "true" control) and evaluating the expectancies for success or failure in given situations (Phares, 1976).

The first attempt at pencil-and-paper measurement of the locus of control construct was by Phares (1955). He used 13 skill items and 13 chance items presented in a Likert-scale format. This early instrument was based on the assumption that subjects who scored internally (endorsed

skill, rather than chance items), would exhibit behavior on an experimental task as if they had received skill instructions, while the externally scoring subjects would exhibit behavior as if they had received chance instructions. Although this study did not lend support for Phares' (1955) hypothesis, it did suggest that those subjects who scored more externally demonstrated more frequent changes in expectancy and less frequent shifts in direction than those subjects who scored less externally. Thus, Phares' (1955) early experiment suggested that it might be useful to pursue the measurement of locus of control orientations and that it might be possible to do so by use of a pencil-and-paper scale.

James (1957) followed up Phares' early work by improving and revising the latter's scale. James also predicted that behavior on experimental tasks involving expectancy would differ for those individuals scoring internally and those scoring externally. His hypotheses were substantiated. Subsequently, the James-Phares instrument became one of the earliest pencil-and-paper measures of the locus of control construct.

More systematic and extensive scale development followed by Rotter, Seeman, and Liverant (1962). The scale developed by Rotter et al. (1962) was originally devised to assess control expectancies in different reinforcement areas

(achievement, dominance, affiliation, etc.), but factor analysis revealed only one general factor (Lefcourt, 1982). Rotter's (1966) Internal-External Scale has become a widely used measure of the locus of control construct, although it has been criticized for its relationship to social desirability, for confounding different types of locus of control, and for its difficult reading level (Nowicki & Duke, 1974b). Therefore, Nowicki and Duke (1974a) developed a new adult scale, the Adult Nowicki-Strickland Internal-External Scale (ANSIE), which attempted to overcome some of the shortcomings of the Rotter scale. This scale was not related to social desirability scores and was suitable for use with subjects with as little as a fifth-grade reading ability. It did not attempt, however, to differentiate types of locus of control but was designed to yield one global locus of control score (Phares, 1976). According to Phares (1976), this global or generalized measure of locus of control allows for assessment of an individual's "average" locus of control attributes over many situations.

Lefcourt (1982) critically reviewed studies utilizing adult locus of control measures considering these issues: generalization across persons, generalization across reinforcement areas, and various agents of external control. He concluded that for purposes of research into generalized

locus of control, the Rotter scale or the Nowicki-Duke scale (ANSIE) were preferable (Lefcourt, 1982).

Measurement of Locus of Control in Children

Attempts to systematically investigate children's locus of control orientations began in the 1960's. Bialer's 1961 scale (Children's Locus of Control Scale) was the first published measure, followed by Battle and Rotter's 1963 scale (Children's Picture Test of Internal-External Control). Since that time numerous locus of control measures for children have been designed.

Gilmor (1978) reviewed existing children's locus of control scales for age appropriateness, influences of social desirability, SES, IQ, efficiency of administration, continuity among different ages, and technical adequacy (reliability and validity). As a result of this critical review, Gilmor (1978) recommended the use of the Nowicki scales for children (Children's Nowicki-Strickland Internal-External Scale--CNSIE) (Nowicki & Strickland, 1973) and for preschoolers (Pre-school and Primary Nowicki-Strickland Internal-External Scale--PPNSIE) (Nowicki & Duke, 1974b).

Research on Parenting

Historical Overview of Parenting

According to Martin (1975), the early impetus in this century for the study of parent-child relationships derived from research on the child-rearing attitudes and characteristics of parents of emotionally disturbed and delinquent children. Parents of delinquents, for example, were frequently reported to be hostile, lacking in warmth, or rejecting (Burt, 1929; Glueck & Glueck, 1934). Rejection was also found to be prominent in many parents of children attending child guidance clinics (Newell, 1936).

After reviewing studies to that time, Symonds (1939) proposed that parental attitudes might be divided into the dimensions of acceptance-rejection and dominance-submission. Symonds (1939) used individual case studies contributed by teachers or psychologists to examine these dimensions. The case studies were matched for IQ, age and SES, but differed in the degree to which the child was considered accepted or rejected by his parents. Examination of the data reported in these matched case studies revealed that accepted children displayed more socially accepted behavior, more positive personality characteristics, and more positive mental attitudes (Symonds, 1939). A similar matched case study method was used by Symonds to investigate the dominance-submission dimension. He found that children of dominating parents were shy and conforming, although more socialized than children of permissive parents. The

children of permissive parents were described as more irresponsible but outgoing and outspoken.

Baldwin, Kalhorn, and Breese (1945) intercorrelated ratings of mothers' behavior with their preschoolers based on home observations carried out over 2 1/2 years. Three clusters of intercorrelated variables were extracted by inspection which were somewhat similar to Symonds' (1939) dimensions. They were: affection (acceptance, warmth); indulgence (protectiveness, babying); and democracy (understanding, noncoercive suggestion).

Schaefer (1959) provided an integration of work in this area. He analyzed data on 18 maternal behaviors related to child-rearing. He showed that these 18 maternal behaviors could be arranged in a systematic circular order.

Correlations between adjacent variables were high but by taking any one variable as a starting point and moving along the circumplex ordering, the correlations between that variable and other variables began to decrease, then became negative, and finally became positive again as the circle was completed (Schaefer, 1959).

The relative stability of these two dimensions was demonstrated by a longitudinal study utilizing behavioral observations and interviews with mothers (Schaefer, 1961). The correlation of maternal attitudes when the children were preschoolers and preadolescents was .68 for the

love-hostility dimension. The correlation of the mothers' scores on the control-autonomy dimension over time was .26, suggesting that the degree of control a mother displays may change over time as the child's needs change.

Becker and Krug (1964) showed that a similar two-dimensional circumplex ordering could be obtained from maternal and paternal ratings for both male and female children. Peterson and Migliorino (1967) also found factors similar to Schaefer's affection and control factors using interview data with Sicilian and American parents. Parker, Tupling, and Brown (1979), in their analysis of parental responses on the Parental Bonding Instrument, found two similar factors in British parents. They were: 1) caring and empathy vs. rejection and indifference, and 2) an overprotection dimension which involved control, intrusion, and dependency.

In recent years, the effort to confirm the warmth and control dimensions cross-culturally has continued. Rohner and Rohner (1981) used ethnographical coding procedures of mothers', fathers' and other caretakers' behaviors and suggest that warmth and control are child-rearing dimensions operating in all human societies. Rohner and Pettengill's (1985) use of Korean children's reports of parental behavior lends support to Rohner and Rohner's (1981) hypothesis by demonstrating that these two dimensions are operating in

Korean society. However, controversy exists as to whether these two dimensions are independent of one another (Rohner & Pettengill, 1985).

Goldin (1969) reviewed studies of children's reports of parent behavior from 1931 through 1965. He found that, in the majority of studies, the warmth and control factors were independent of one another. Martin (1975), in a historical review of parent-report data, also found the orthogonality of the two factors in the studies he reviewed. In the majority of factor analytic studies reviewed by Goldin (1969) and Martin (1975), the warmth dimension emerged first with the control dimension emerging second. Rohner and Pettengill (1985), however, note that the majority of these factor analytic and correlational studies have been conducted with subjects in the United States. They challenge the orthogonality of this two-dimensional model in other cultures. In their correlational study of Korean children's reports of parental behavior, Rohner and Pettengill (1985) found that for Korean children, the parental affection and control dimensions are significantly correlated. Although the orthogonality of this two-dimensional model cross-culturally is questionable, the majority of the evidence suggests that it is applicable to the American population.

Parenting and Socioeconomic Status

As noted earlier, the existence of the warmth and control dimensions in parenting appear to be fairly well-established in the U.S. and cross-culturally. However, evidence exists which suggests variance in parenting attitudes according to social class. Social class distinctions are generally based on the prestige and income associated with the parents' occupation and the level of parental education (Martin, 1975). Reviews of the effects of socioeconomic status on child-rearing behaviors and attitudes by Deutsch (1973) and Martin (1975) provide relatively consistent evidence of differences in parenting attitudes and beliefs according to social class.

Systematic research has focused primarily on the middle class (professionals, managers, white collar workers) and the working class (skilled manual workers with steady jobs) (Martin, 1975). Little attention has been paid to the upper classes or the "down and outers". Early research, based largely on parental interviews, indicated that middle-class parents showed more warmth, were more permissive, and used more reasoning and love-oriented approaches with their children than did lower-class parents (Martin, 1975). Martin (1975) noted that lower-class parents were more likely to use shouting, ridicule, and physical punishment with their children.

Studies using direct observation of parent-child interactions have also borne out the findings of the parent interview data. Studies with caucasian mothers (Tulkin & Kagan, 1972), black mothers (Brophy, 1970), and caucasian fathers (Radin, 1972) have revealed similar social class differences in child-rearing behavior.

Attempts to explain these social class differences have noted the higher intelligence, education, and greater family stability of middle-class parents as well as their exposure to expert opinion on child-rearing (Sameroff, 1975). Kohn (1963) has suggested that the life conditions of the working class may be responsible for the child-rearing differences. He hypothesized that the working-class values center more on conformity to external proscriptions (as do their occupations), while middle-class values center more on self-direction (Kohn, 1963). Martin (1975) suggested that these class associated characteristics are similar to many features of parenting associated with the development of adherence to parental or social standards. Lower-class families, by using power-oriented discipline and less verbalization, appear to be promoting a more external orientation to consequences while middle-class parenting techniques appear to be encouraging a more internal orientation toward consequences (Martin, 1975).

Measurement of Parenting Attitudes

Maccoby and Martin (1983) have observed that many of the early studies of the relationship between parental practices and child behavior used parents' introspective or descriptive reports as the sources of primary data, while more recent studies have used supplemental home observations. These techniques of interviewing grew out of clinical psychology, social psychology, and public opinion survey methodology (Maccoby & Martin, 1983).

As Maccoby and Martin (1983) have suggested, the use of parents as informants has great advantages. For assessment of behavior that is not displayed in public, reliable observational data are difficult to obtain, and parent reports may be the only viable alternative (Maccoby & Martin, 1983). Parents also have the opportunity to observe their interactions with their children in a broad range of situations over an extended period of time. Thus, by virtue of parents' daily participation with their children, they have access to unique information about themselves and their family which might not be available through observational methodology. Similar to the use of parent interviews is the use of questionnaires. Questionnaires have the additional advantages of requiring less training to administer and are less costly to code than interviews.

Despite the strengths of subject-as-informant methods,

self-report questionnaires have been criticized on several grounds. One frequently noted problem is that parents may not be aware of certain aspects of their own behavior, especially the more subtle, nonverbal reactions (Maccoby & Martin, 1983). Another issue in use of parent-report data is the subject-to-subject variation in interpretation of descriptive terms. The reliability of retrospective parental reports is also a problem in self-report data.

These criticisms of self-report questionnaires have been responded to in a number of ways. Parent reports are now used primarily for obtaining current, not retrospective, data (Maccoby & Martin, 1983). In addition, an effort is now made to distinguish between parental attitudes and values and parental reports of actual behavior. Parent questionnaires are also moving away from trait descriptions and using more objective language to enable parents to give more accurate reports of their own behaviors.

Past research on parental variables has not been limited to parent-report data. Behavioral observation has also been utilized, as have child-report data. However, these methods also present their own sets of limitations. Martin (1975) has noted the following set of problems when using behavioral observation: 1) the unknown effect of the observer; 2) the representativeness of the sample of behavior observed; and 3) the coding of the behavior

sample.

Problems with child-report data include issues similar to those of parent-report data. Issues of objectivity and attention to subtle details of the parent-child interaction are concerns, as are subject-to-subject variation in interpretation of terminology.

Cox (1975) reviewed six sources of data regarding parenting behavior: parent interview, family interview, structured observation, unstructured observation, and diary and parental report, and concluded that each method has its advantages and disadvantages. As Kaplan (1980) has noted, despite the limitations of interviews and questionnaires, they continue to remain important sources of data.

Research on Locus of Control and Parenting

Much of the research into the area of parenting skills and locus of control consists of correlational findings, generally consisting of comparisons of locus of control scores in children and scores pertaining to the child-rearing practices of parents. Despite the consistency of methods, the research has varied considerably in terms of the measurement of locus of control, the populations sampled, and in terms of how child-rearing practices have been inferred. In the studies reviewed, the three most commonly used instruments for measuring children's locus of

control orientations were the Intellectual Achievement Responsibility Questionnaire (IARQ) (Crandall et al., 1965), the Rotter Internal-External Scale (Rotter, 1966), and the Children's Nowicki-Strickland Internal-External Scale (CNSIE) (Nowicki & Strickland, 1973). The IARQ is a children's instrument which assesses locus of control in relation to achievement situations. Rotter's I-E Scale is a generalized measure for adults which has been used in some investigations with adolescents. The CNSIE is a generalized locus of control measure for children and was used in the majority of studies reviewed (e.g., Barling, 1982; Chandler et al., 1980; Mangum, 1975).

The majority of studies reviewed sampled children or preadolescents and their parents (e.g., Barling, 1982; Ollendick, 1979). A few, however, gathered information from adolescents or college students and their parents (e.g., Davis & Phares, 1969; Nowicki & Segal, 1974).

The studies also varied in how the parenting practices were inferred. In a few studies, children and parents were observed interacting, either in a laboratory setting or at home (e.g., Gordon et al., 1981). In other studies, parents were asked to report on their own child-rearing attitudes or behavior (e.g., Chance, 1972; Nowicki, 1979; Wichern & Nowicki, 1976). The majority of studies reviewed utilized children's reports of perceived parental behavior or

attitudes (e.g., Chandler et al., 1980; Davis & Phares, 1969).

The instruments chosen to assess parental attitudes and behavior were much more varied than were the locus of control measures. The parenting instruments included, but were not limited to: the Parental Acceptance-Rejection Questionnaire (PARQ) (Rohner, 1984), the Parental Attitude Research Instrument (PARI) (Schaefer & Bell, 1958), the Parent Attitude Survey (PAS) (Hereford, 1963), and the Maryland Parent Attitude Survey (MPAS) (Pumroy, 1960). Despite the diversity of these measurement instruments, the results of the studies have been surprisingly consistent over time (Lefcourt, 1982).

Among the earliest studies aimed at examination of familial determinants of locus of control were those by Katkovsky et al. (1967) and Davis and Phares (1969). Katkovsky et al. (1967) gave middle-class preadolescents the IARQ and used maternal interviews, home observations, and parental self-report data. These parent measures revealed that children's internal locus of control beliefs were associated with maternal protectiveness, approval and affection. These findings were important but were limited in generalizability due to the investigation of only middle-class mothers.

Davis and Phares (1969) attempted to correct for one of

the limitations by considering both maternal and paternal attitude measures. This study, however, also used a population not representative of the general population. In their study of college students' reports of perceived parental behavior, they found further support for Katkovsky et al.'s (1967) results. Using Rotter's I-E Scale and the Children's Report of Parental Behavior, they found that parents of "internals" were perceived as less rejecting, hostile and controlling than were parents of "externals".

A 1974 study by Nowicki and Segal lends further credibility to the early findings. Using middle-class adolescents' reports of parents' behavior and the CNSIE, they discovered that internality was related to maternal and paternal affection for females but was only related to maternal affection for males.

Thus, from home observations, parental interviews and self reports, and child reports, these early results suggested that children's beliefs in internal control of reinforcements are related to the degree to which parents are protective, nurturing, approving, and accepting. The overall findings derived from different age samples and tested with a diversity of locus of control measures and procedures for determining parent attitudes have been fairly impressive in their consistency. However, if it is hypothesized that an internal control orientation is, in

part, a result of successful experiences in coping with tasks and problems, then warm and supportive parental attitudes alone may not be sufficient conditions for its development.

A 1980 factor analytic study by Rohner, Chaille and Rohner lent support to this hypothesis. In a study of children's locus of control orientations and their reports of parental acceptance and rejection, the researchers found that age and acceptance only accounted for 22 % of the variance in locus of control scores. Thus, it would appear that other variables may also be contributing factors in the development of children's locus of control orientations.

Early studies by MacDonald (1971) and Chance (1972) hypothesized that the control dimension (Schaefer, 1959) may be a contributing factor to children's locus of control. MacDonald used college students' reports of parental behavior and Rotter's I-E Scale and found internality associated with warmth and consistency but not with overprotectiveness. Chance's study of children aged 5 to 18 and their parents, also suggested that internality was associated with less protectiveness, greater permissiveness, and earlier independence training. Although Chance's study employed different research instruments (the IARQ and the Parent Attitude Research Instrument), the findings were similar to those of MacDonald (1971). Thus, these studies

suggested that in addition to warmth and affection, a certain degree of permissiveness and independence-allowing may be necessary for children to learn objective cause-effect contingencies, adjust to them, and recognize their own role in causing outcomes.

In studies by Wichern and Nowicki (1976) and Nowicki (1979), further evidence was found for the importance of this control-autonomy dimension in parenting. Wichern and Nowicki (1976) used the CNSIE with second and seventh graders and two measures of independence training with mothers of these children. Mothers of "internals" reported earlier independence training and allowing than mothers of "externals". Nowicki's 1979 study was expanded to include mothers and fathers, and the results were examined by gender of the child. Again, parents of "internals" reported earlier independence training. No differences were found according to the gender of the parent or according to the gender of the child in Nowicki's (1979) study.

These results with independence and permissiveness suggest that parents who encourage their children's independence by providing choices and a degree of autonomy have children with more internal locus of control orientations. A study by Gordon et al. (1981) lent further support to this hypothesis. This study used the PPNSIE with 7-year-old subjects. Using behavioral observation and

coding of mother-child interactions, the researchers found that mothers of "internals" exhibited more warmth and support while mothers of "externals" exhibited more criticism and less involvement. Mothers of "internals" were also more encouraging of autonomy than were mothers of "externals".

In addition to the warmth and control parenting variables, several recent studies have also suggested that it may be important to consider parental locus of control in predicting the child's locus of control. Chandler et al. (1980) and Barling (1982) have included the parent's locus of control as a variable in conjunction with the warmth and control dimensions. Barling's study, however, included only mothers. In addition, the locus of control measures used to assess parents' and children's locus of control orientations were non-corresponding versions of locus of control scales. A regression analysis to determine the relative importance of the parent variables was not attempted. The Chandler et al. study found differences in attitudes between parents of "internals" and "externals" on parents' self-report measures, but no differences were found between the two groups when child-report measures were analyzed. Chandler et al. also reported a significant correlation between mothers' and children's locus of control orientations but not between fathers' and children's. While

significant differences were found between the parents of "internals" and "externals", no attempt was made in this study to determine the relative importance of each of the parental variables in predicting the child's locus of control orientation.

Summary of Literature Review

The locus of control construct is derived from Rotter's (1954, 1966) Social Learning Theory. It refers to the degree to which individuals attribute the reinforcement they experience to their own characteristics and behavior or to external agents. Systematic attempts to measure the locus of control beliefs of children and adults began in the 1960's. These measurements have generally consisted of pencil-and-paper instruments, several of which have been carefully reviewed and determined adequate for research purposes.

While no definitive sequence for development of locus of control beliefs is outlined in Social Learning Theory, it is hypothesized that children's locus of control orientations are determined early in life by familial and social influences. In spite of the general stability of locus of control orientations, age, environmental events, and highly structured interventions have been demonstrated to influence locus of control in adults and children.

Research has also suggested that locus of control is affected by one's social class (e.g., Gilmor, 1978; Lefcourt, 1982; Phares, 1976) and by one's family environment (e.g., Gordon et al., 1981; Martin, 1975; Nowicki, 1979).

Investigation into the familial correlates of locus of control has centered mainly around the parental dimensions of warmth and control. Although these two parenting dimensions were introduced early in the 1900's, they appear to have withstood the "test of time" rather well. These dimensions have been measured by a variety of techniques, including parent reports, child reports, parent interviews, and parent-child observations, each of which has advantages and disadvantages. These parent dimensions have been shown to vary according to social class (Martin, 1975) and according to the gender of the child (Nowicki & Segal, 1974).

Both the warmth and control parenting dimensions have been shown to be related to locus of control beliefs in children. The majority of the research literature suggests that internality is related to parental warmth (nurturance, acceptance) and autonomy (permissiveness). Externality is generally associated with parental rejection and a high degree of control, overinvolvement or protectiveness (e.g., Chance, 1972; Gordon et al., 1981; Nowicki & Segal, 1974).

A third parental variable which has been considered in conjunction with the warmth and control dimensions in attempts to predict children's locus of control beliefs has been parental locus of control. While correlations have been found between parents' locus of control orientations and children's locus of control orientations (Chandler et al., 1980; Mangum, 1975), the extent to which the three parental variables (locus of control, warmth, and control) interact to predict the child's locus of control beliefs has yet to be determined.

Chapter III

Methodology

Population and the Sample

The subjects of this study were fourth, fifth, and sixth grade students attending public school in York County, Virginia, and their parents. Students and the parents of students who receive the majority of their education in regular classroom settings were asked to participate. This method of selection included those students who receive special education resource services but excluded those students whose handicaps are severe enough to warrant placement in a self-contained setting. As Lawrence and Winschel (1975) suggest, the development of locus of control orientations in handicapped students may be confounded by the student's handicapping condition and thus may not be representative of the general population.

Participation was on a volunteer basis and 290 families chose to take part in the study. After collection of the data, the sample was limited to two-parent families from middle- and upper-class socioeconomic levels. Fifty-three single-parent cases were excluded and four were excluded due to below average socioeconomic status. This sample included cases in which only one parent chose to participate, as long as two parents were living in the home. Thus, data from 233

families were considered.

Of the 233 student participants, 110 (47.2%) were male and 123 (52.8%) were female. Fourth and fifth graders were nearly equally represented, with 83 fourth graders (35.6% of the sample) and 82 fifth graders (35.2% of the sample). There were 68 sixth graders (29.2% of the sample).

Two hundred and thirty-three mothers and 220 fathers were included in the study. The mean age for mothers was 34 years, with a range from the twenties to the fifties. Fathers' mean age was 36 years with the same range as for mothers. Two hundred twenty-four mothers (96.1%) were caucasian and eight mothers (3.4%) were black. Only one mother (.4%) checked "other". Demographic data were obtained for all of the 233 fathers in the sample, whether or not they chose to participate. Of those 233 fathers, 223 (95.7%) were caucasian, seven were black (3.0%), and three (1.3%) were "other".

The socioeconomic status of the families was determined by the "Hollingshead Two-Factor Index of Social Position" (Hollingshead, 1957) which is based on an individual's years of education and level of occupation. When the scale was originally developed, it was based on the education and occupation of the head of the household. For purposes of this research, however, the education and occupation of both parents, when possible, were considered. The combined

socioeconomic scores for the families included in this study ranged from 15 to 43 (Mean=27.7) and were all considered middle- or upper-class socioeconomically according to the Hollingshead (1957) categories.

Data Gathering Methods

Following approval of this research project by officials at the College of William and Mary and in the York County Public Schools, PTA meetings and newsletters were employed in an effort to alert parents to this upcoming study. Several weeks later the study was explained to the students in grades 4 to 6. At that time they were given a letter to parents describing the purpose of the study and requesting the parents' participation. This letter described the data to be collected, the estimated time commitment required of the parents and of their children, the likely scientific benefits, and the method by which confidentiality would be assured (see Appendix A).

The following week, a packet of information was sent to the parents via the students which consisted of a cover letter (see Appendix B), a permission form for their child (see Appendix C), a form requesting demographic information (see Appendix D), and three parent questionnaires for each parent (see Appendices E-G). Two weeks were allowed for the completion and return of forms. The parents were given the choice of returning the forms to the school or to the

researcher's office by mail. Only two parents chose to mail the questionnaires to the researcher's office.

Upon receipt of the parent measures and permission forms, the students completed the locus of control scale (see Appendix H). This measure was administered in groups which ranged in number from 24 to 45. The locus of control measure was read aloud with two psychologists supervising the students' completion of the instrument.

Ethical Considerations

The following ethical safeguards were taken in this research:

1. This proposal for study was reviewed by the College of William and Mary's Human Subjects Research Committee.
2. Permission to conduct this study was obtained from the research committee of York County Public Schools.
3. Participant consent was obtained for the parents involved in the study, and parental permission was obtained for the children involved in the study.
4. Responses of parents and children were coded and group analyzed to ensure confidentiality.
5. Results of the study were made available to the school system and to the participants by way of a PTA-sponsored seminar on parenting skills.

Instrumentation

1. Parents' locus of control orientations were assessed by the Adult Nowicki-Strickland Internal-External Scale (ANSIE) (Nowicki & Duke, 1974a). A copy of this scale is in Appendix E. The ANSIE is an upward extension of the Children's Nowicki-Strickland Internal-External Scale, with items changed only to the extent that the wording is applicable to adults instead of children. It is a paper-and-pencil test consisting of 40 items which can be answered "yes" or "no". The test items are written so that the test can be taken by persons with a fifth-grade reading level, thus making it appropriate for college and noncollege adults. The test requires approximately 15 minutes to complete.

The authors (Nowicki & Duke, 1974b) of the ANSIE report that the scale is psychometrically sound. In a study of 158 college and community adults, internal consistency estimates ranged from .74 to .86. Data from 48 of these 158 adults revealed test-retest reliability of .83 over a six-week period (Nowicki & Duke, 1974b).

Construct validity of the ANSIE was established by correlation to Rotter's Internal-External Scale. Rotter's measure was based on data from behavioral choice and verbal interviews derived from early experiments with the locus of control construct. Correlations of the ANSIE to the Rotter

I-E Scale in three separate studies by Nowicki and Duke (1974b) were reported to be .68, .48, and .44. According to Lefcourt (1976), this moderate relationship was desirable. It suggested that it is not identical to Rotter's scale but that considerable overlap exists.

2. Parental attitudes on the acceptance-rejection dimension were assessed by the mother's version of the Parental Acceptance-Rejection Questionnaire (Mother PARQ) (Rohner, 1984) (see Appendix F for a copy of this measure). The PARQ is a self-report questionnaire which assesses parents' perceptions of their behavior toward their children in terms of acceptance and rejection. It is a paper-and-pencil measure consisting of 60 items in a Likert-scale format. It consists of four factors: warmth/affection, aggression/hostility, neglect/indifference and undifferentiated rejection. The mother version of the PARQ is identical to the Adult PARQ except for tense and pronoun.

To establish the concurrent, convergent, and discriminant validity of the PARQ scales, the author used a modified version of the adult form of the instrument. This validity-study version was created by inserting items in cyclical order from two already validated instruments. Three scales from Schaefer's (1964) Child's Report of Parental Behavior Inventory (CRPBI) and one scale from Brofenbrenner's Parental Behavior Questionnaire (BPB)

(Siegelman, 1965) were used as criterion measures. Results from Rohner's (1984) study suggest that all four factors of the Adult PARQ are significantly related to their validation scales, with correlations ranging from .43 to .90. Rohner also reports internal consistency estimates ranging from .71 to .95.

3. Parents' attitudes toward control and autonomy in child-rearing were measured by Form II of the Attitude Toward Freedom of Children Scale (ATFC-II) (Koch, Dentler, Dysart, & Streit, 1934). A copy of this scale is located in Appendix G. On the ATFC-II, parents are asked to "agree" or "disagree" with 33 statements concerning autonomy in child-rearing. Reliability of the scale was determined by comparing the scale values obtained from two groups of 100 judges. The two sets of values correlated .97 (Koch et al., 1934). Validity was determined by analyzing how the scale discriminated between various groups (males and females and more or less educated parents), in addition to the validity implied in the judging procedure.

According to a review by Dembo et al. (1985), the ATFC-II has been used frequently in research during the 1970's. It has been found to discriminate between groups receiving Adlerian parent training and control groups receiving no intervention (Dembo et al., 1985). Thus, although this instrument was constructed in 1934, it appears

to be appropriate for use in current research.

4. Children's locus of control orientations were assessed by the Children's Nowicki-Strickland Internal-External Scale (CNSIE) (Nowicki & Strickland, 1973) (see Appendix H for a copy of this measure). The CNSIE is a 40-item pencil-and-paper measure of generalized expectancy for control in children. According to the authors, the items describe reinforcement in a variety of areas, such as affiliation, achievement, and dependency. The measure was designed for children in grades 3 to 12, and has a fifth-grade reading level. It requires approximately 15 to 20 minutes to administer orally.

In their standardization sample of over 1,000 elementary and high school students, Nowicki and Strickland (1973) reported split-half reliability estimates ranging from .63 to .81. The authors also report test-retest reliabilities over a six-week period for three grade levels. The correlations obtained were .63 for third graders, .66 for seventh graders, and .71 for tenth graders.

To establish the construct validity of the CNSIE, Nowicki and Strickland (1973) investigated the relationships between the CNSIE and other children's measures of locus of control. In a sample of black third and seventh graders, significant correlations were reported with the locus of control for success (I+) score from Crandall's IARQ. The

correlations were .31 for third graders and .51 for seventh graders. Significant correlations ($r=.41$) were also reported with the Bialer-Cromwell Locus of Control Scale for a sample of children aged 9 to 11 (Nowicki & Strickland, 1973).

Nowicki and Strickland (1973) also reported relationships between the CNSIE and other variables which they suggested could be used as evidence of construct validity. The authors cite relationships between internality and grade point averages, achievement scores, popularity, delay of gratification, and socioeconomic status as indicative of construct validity.

5. The socioeconomic status of the subjects involved was determined by the Hollingshead Social Index Measure (Hollingshead, 1958). This measure yields an estimate of socioeconomic status determined by the years of schooling and occupation of the head of the household. These two factors are classified and weighted to yield a single estimate of socioeconomic status. For purposes of this study, however, the education and occupation of both parents were classified, weighted and then averaged to yield this estimate of socioeconomic status. This instrument has been used by many researchers investigating parental variables and locus of control, including Nowicki and Segal (1974), and Gordon et al. (1981).

Research Design

The research design which was employed in this investigation was a causal-comparative design. As Borg and Gall (1983) have suggested, the causal-comparative method is "aimed at the discovery of possible causes for the phenomenon being studied by comparing subjects in which the characteristic is present with similar subjects in which it is not present or is present to a lesser degree" (p. 355).

In this study, the phenomenon which was investigated was the child's locus of control orientation. The comparison was between the parents of children who were either "internals" or "externals", whose scores were also separated by gender. Thus, four groups were considered. They consisted of internal males, external males, internal females, and external females. Three maternal and three paternal self-report measures were examined for each of these four groups.

Specific Null Hypotheses

1. There will be no relationship between children's locus of control scores and their parents' locus of control, warmth, or control scores.
2. There will be no difference in weighting of parental variables in explaining the children's locus of control scores.

3. The relationship between children's locus of control scores and parents' locus of control scores will not be affected by the gender of the parent.

4. The relationship between children's locus of control scores and parents' locus of control scores will not be affected by the gender of the child.

Statistical Analyses

To investigate the hypotheses of this study, an initial step involved the construction of a correlational table using the four children's groups (internal males, external males, internal females, and external females) and the six parental measures. As a second step, four regression analyses were then performed.

Borg and Gall (1983) refer to multiple regression as a multivariate technique for determining the correlation between a dependent variable and some combination of two or more independent variables. Multiple regression provides estimates of both the magnitude and statistical significance of relationships between variables. In this research, multiple regression was utilized to determine the relationship between children's locus of control scores grouped by gender and the six parent variables (maternal locus of control, warmth, and control scores, and paternal locus of control, warmth, and control scores).

Summary of Methodology

Data for this causal-comparative study were gathered from volunteer fourth, fifth, and sixth grade children and their parents living in York County, Virginia. The sample was limited to two-parent families of middle- to upper-socioeconomic status. Participating parents were asked to complete three measures (locus of control, warmth and control), after which the children completed the children's locus of control measure.

Ethical precautions were taken to protect the subjects by acquiring permission for the study from the individuals, as well as from the institutions involved. Confidentiality of responses was also provided.

The instruments which the parents completed in this research were the Adult Nowicki-Strickland Internal-External Scale, the Parental Acceptance-Rejection Questionnaire, and the Attitude Toward Freedom of Children Scale (Form II). The children were asked to complete the Children's Nowicki-Strickland Internal-External Scale.

The children's data were then grouped by locus of control orientation and gender to form four groups: internal males, external males, internal females, and external females. Six parent variables were then considered for each group. To investigate the research hypotheses, correlational analyses, followed by multiple regression

analyses were performed.

Chapter IV

Results

The purpose of this study was to investigate the relationship between children's locus of control and their parents' locus of control and attitudes toward warmth and control in child-rearing. Each of the null hypotheses and the statistical results are presented in this chapter.

Hypothesis 1

Hypothesis one stated that there would be no relationship between children's locus of control scores and their parents' locus of control, warmth and control scores.

To examine this hypothesis, the children's scores were divided into four groups based on gender and locus of control score. According to the frequency distribution, the median locus of control score for males was determined to be 16. The CNSIE is scored in such a way that the higher score suggests a more external locus of control. Thus, males scoring at or above 16 on the CNSIE were, for the purposes of this study, considered to be "externals". Males scoring below 16 were considered "internals". The frequency distribution revealed a median of 14 for females on the CNSIE. Thus, females with locus of control scores at or above 14 were considered "externals", while those with locus

of control scores below 14 were labeled "internals".

Four correlational tables were then constructed by group (internal males, external males, internal females, external females) to examine the interrelationships of the six parent variables (maternal locus of control, maternal warmth, maternal control, paternal locus of control, paternal warmth, and paternal control) to the children's locus of control.

For three of the four groups, there were no correlations which were significant. For external males, internal females, and external females, the correlations between the children's locus of control scores and the parent variables did not reach the .05 level of significance.

When the correlational data were examined for the "internal males", however, it was found that there were significant positive correlations between children's locus of control scores and mothers' locus of control scores ($r=.2730$, $p=.024$) and between children's locus of control scores and fathers' locus of control scores ($r=.3063$, $p=.016$). This suggests that male children who scored internally had mothers and fathers who scored internally. There was also a significant positive relationship between children's locus of control scores and mothers' acceptance-rejection (warmth) measure ($r=.2494$, $p=.036$), and

between children's locus of control scores and fathers' acceptance-rejection (warmth) measure ($r=.2496$, $p=.045$). This finding suggests that male children who scored internally have mothers and fathers who display a high degree of warmth and acceptance in their child-rearing practices or attitudes. It should be noted, however, that although significant correlations were found with some parent variables for this group of "internal males", the correlations are extremely weak (see Table 1).

TABLE 1

Correlations of External Males' Locus of Control
with Parents' Locus of Control and Attitudes
Toward Warmth and Control
(N=47)

	Mothers' <u>ANSIE</u>	Fathers' <u>ANSIE</u>	Mothers' <u>PARQ</u>	Fathers' <u>PARQ</u>	Mothers' <u>ATFC</u>	Fathers' <u>ATFC</u>
<u>CNSIE</u>	.2730*	.3063*	.2494*	.2496*	.1229	.0303

* $p < .05$
** $p < .01$
** $p < .001$

Hypothesis 2

Hypothesis two stated that there would be no difference in weighting of parental variables in explaining the children's locus of control scores.

To examine this hypothesis, four stepwise regression analyses were performed by group (internal males, external males, internal females, external females) to determine the relationship of the six parent variables (maternal locus of control, maternal warmth, maternal control, paternal locus of control, paternal warmth, paternal control) to the children's locus of control scores. For three of the four groups, the null hypothesis of no difference in weighting of parental variables in the child's locus of control score could not be rejected. No parental variables were significant at the .05 level to enter the regression equations for the external male, internal female, or external female groups.

For internal males, however, one parent variable, the father's locus of control, reached the .05 level for entering the regression equation ($R=.34$, $f=.018$) (see Table 2). Thus, for internal males, the null hypothesis suggesting no difference in weighting of the parents' variables in explaining the children's locus of control scores can be rejected.

TABLE 2

Multiple Regression Analysis for External Males' and
Parents' Variables
(N=47)

Variable(s) Entered on Step Number
1.. FATHERS' ANSIE

Multiple R	.34320
R Square	.11778
Adjusted R Square	.09818
Standard Error	2.85376

Analysis of Variance

	<u>DF</u>	<u>Sum of Squares</u>	<u>Mean Square</u>
Regression	1	48.92752	48.92752
Residual	45	366.47673	8.14393

F = 6.00785* Signif F = .0182

Variables in the Equation

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T Sig</u>	<u>T</u>
FATHERS' ANSIE	.301152	.122864	.343195	2.451*	.0182

* p<.05
** p<.01
*** p<.001

Hypothesis 3

Hypothesis three stated that the relationship between children's locus of control scores and parents' locus of control scores would not be affected by the gender of the parent.

To examine hypothesis three, a Pearson-product moment correlation procedure was employed. Children's locus of control scores (both males' and females') were correlated with mothers' and then with fathers' locus of control scores. Table 3 shows the correlation coefficients which resulted from these analyses. The children's locus of control scores correlated significantly with fathers' locus of control scores ($r=.11$, $p=.047$), but not with mothers' locus of control scores ($r=.09$, $p=.06$). The strength of the relationship of fathers' to children's locus of control scores, however, was extremely weak. Thus, it appears that the relationship between the children's locus of control scores and parents' locus of control scores was not markedly affected by the gender of the parent given the nonsignificant and very weak significant correlations. It should be noted that this finding is the opposite of the researcher's predicted direction which suggested a greater relationship between the mothers' and children's locus of control scores rather than the fathers' and children's locus of control scores (see research hypothesis 3, page 18).

TABLE 3

Correlations of Children's Locus of Control
With Mothers' and Fathers' Locus of Control
(N=205)

	<u>Mothers'</u> <u>ANSIE</u>	<u>Fathers'</u> <u>ANSIE</u>
<u>CNSIE</u>	.0991	.1135*

* p<.05
** p<.01
*** p<.001

Hypothesis 4

Hypothesis four stated that the relationship between children's locus of control scores would not be affected by the gender of the child.

To examine hypothesis four, a Pearson-product moment correlation procedure was used. Locus of control scores for male and for female children were compared with locus of control scores for mothers and locus of control scores for fathers. None of these correlations between male and female children's locus of control scores and their parents' locus of control scores were significant when separated by gender (see Table 4). Thus, the gender of the child does not seem to be an influencing factor in the relationship between

parents' and children's locus of control scores.

TABLE 4

Correlations of Male and Female Children's Locus of Control with Mothers' and Fathers' Locus of Control
(Male N=110; Female N=117)

	Fathers' <u>ANSIE</u>	Mothers' <u>ANSIE</u>
<u>CNSIE</u> (female)	.1070	.1480
<u>CNSIE</u> (male)	.1139	.0523

* p<.05
** p<.01
*** p<.001

Chapter V

Summary and Conclusions

This chapter is organized into three major sections. First, a summary of this study is presented. Then conclusions based upon analysis of the data are presented, followed by recommendations for future research.

Summary

During the past three decades, much research attention has been focused on the locus of control construct derived from Rotter's (1954, 1966) Social Learning Theory. Locus of control refers to the degree to which individuals attribute the reinforcement they experience to their own characteristics and behavior or to external agents. While no definite sequence for development of locus of control beliefs is outlined in Social Learning Theory, it is hypothesized that children's locus of control orientations are determined early in life by familial and social influences. However, as Phares (1976) has suggested, the general area of social and familial antecedents of locus of control beliefs is a neglected facet of locus of control research. While more research attention has been given to antecedents of locus of control beliefs in recent years, Lefcourt (1982) notes that it is an area still "ripe for exploration" (p. 131).

Investigation into the familial antecedents of locus of control has centered mainly around the parental dimensions of warmth (acceptance-rejection) and control (permissiveness-restrictiveness). Although these two dimensions were introduced early in the 1900's as the two most influential factors in parenting (Symonds, 1939), these two factors appear to have withstood the "test of time" rather well (Martin, 1975).

Katkovsky et al. (1967) and Davis and Phares (1969) were among the earliest researchers to find children's internal locus of control orientations associated with parental approval and affection (warmth). These findings were supported by the research of Chance (1972) and Gordon et al. (1981). McDonald (1971) and Chance (1972) then found that the control dimension in parenting was also a factor which contributed to children's locus of control orientations. Their findings were supported by the research of Wichern and Nowicki (1976) and Nowicki (1979). The results of the previously mentioned studies suggest that children with internal locus of control orientations have parents who exhibit a high degree of warmth and acceptance, but who encourage their children's autonomy. Conversely, parents of children who are "externals" have been found to be more rejecting or critical and more controlling or restrictive in their parenting style.

More recently, researchers have begun to consider the parent's own locus of control orientation in conjunction with the warmth and control dimensions in attempts to predict the child's locus of control. Studies by Chandler et al. (1980) and Barling (1982) have found that children's locus of control orientations are related to mothers' locus of control orientations, but not to fathers' locus of control orientations. While correlations have been found between parents' locus of control orientations and children's locus of control orientations, the extent to which the three parental variables (locus of control, warmth, and control) interact to predict the child's locus of control beliefs has yet to be determined.

Thus, this study was designed to determine the extent to which parents' locus of control and attitudes toward warmth and control in child-rearing are related to children's locus of control orientations. As research by Crandall et al. (1965) has suggested that locus of control orientations are established during childhood and vary little after third grade, the subjects for this research project were children in regular classrooms in grades four through six and their parents. The sample was taken from two public schools in York County, Virginia and was comprised of volunteers participants. After gathering the self-report data from the children and their parents, the

sample was limited to volunteers from middle- to upper-socioeconomic two-parent homes. This resulted in a sample of 233 children, 233 mothers and 220 fathers.

Following data collection, four children's groups were derived based on gender and locus of control score. These groups were: internal males, external males, internal females, and external females. Six parent variables (maternal warmth, maternal control, maternal locus of control, paternal warmth, paternal control, paternal locus of control) were considered for each group. To investigate the research hypotheses, a correlational analysis, followed by a multiple regression analysis was performed for each group.

The results of this data analysis suggest that for only one group, "internal males", were the relationships between children's locus of control scores and parents' variables significant. For "external males", "internal females", and "external females", no significant relationships were found between children's locus of control scores and parents' variables. When children's locus of control scores were combined (not divided by gender or locus of control orientation), it was found that the children's scores were more closely related to fathers' than to mothers' locus of control scores. In spite of the significance of the finding, the relationship of the children's scores to the

fathers' scores was extremely weak. It was also found that there was no difference in the relationship of children's to parents' locus of control scores based on the gender of the child.

Conclusions

Although not all of the researcher's predicted findings could be confirmed in this study, there were several relationships which did occur. For "internal males", the relationships of the children's locus of control orientations to the parents' locus of control orientations and attitudes toward warmth (acceptance-rejection) were in the expected direction. For this group, the data suggest that males who have internal locus of control orientations may have mothers and fathers who also have internal locus of control orientations and who display a high degree of warmth or acceptance in their child-rearing practices. These findings are in support of the research by MacDonald (1971), Rohner et al.(1980), and Chandler et al.(1980). While these findings are statistically significant, it should be noted that the correlations were very weak. The weaknesses of the relationships were further supported by the results of the multiple regression analysis. In that analysis, only the fathers' locus of control scores contributed enough variance in the children's locus of control scores to be considered significant. These findings suggest that there are many

other variables (social, familial, or individual) which were not included in this study which may interact to influence the development of children's locus of control orientations.

The second significant finding from this study was the relationship of children's locus of control scores to fathers', but not to mothers', locus of control scores. This finding was in contradiction to the expected direction of a stronger relationship between mothers' and children's locus of control scores. Although statistically significant, this relationship between fathers' and children's locus of control scores was extremely weak, suggesting that there may not be a practical difference in the relationship of children's locus of control scores to the locus of control scores of either parent. Indeed, the research in this area is inconclusive. In Davis and Phares' (1969) study, children's locus of control scores were not related to the locus of control scores of either parent. In the Chandler et al.(1980) study, children's locus of control scores were related to mothers' locus of control scores, but not to fathers'. Mangum's (1975) study found fathers' and sons' locus of control scores related but not fathers' and daughters'. Mothers' locus of control scores, according to Mangum's study, were not related to the locus of control scores of sons or daughters.

In addition, many of the previous studies (Barling,

1982; Chance, 1972; Gordon et al., 1981) did not examine fathers' data to attempt to determine relationships between fathers' and children's locus of control scores. Thus, the finding in this research of a relationship between fathers' and children's locus of control scores was interesting but appears to require further investigation before firm conclusions can be drawn.

As the results of this research confirmed, only in part, the previous findings of researchers investigating children's locus of control and parenting variables, it is necessary to speculate as to how this discrepancy can be explained or reconciled. There are several issues which can be addressed in this explanation. These include discussion of the constructs which were measured, the method by which they were measured, the uniqueness of the sample which was selected for this particular study, and the developmental variations that may occur in characteristics, such as locus of control, over time.

The constructs which were measured in this study were parents' attitudes toward warmth and control as well as the parents' and children's locus of control orientations. The parenting dimensions of warmth (acceptance-rejection) and control (permissiveness-restrictiveness) were proposed by Symonds as early as 1939. These parental dimensions have been shown to exist cross-culturally (Rohner & Rohner, 1981)

and to be valid dimensions of parenting in more recent times (Martin, 1975). In addition, these dimensions appear to have been related to children's locus of control orientations (Gordon et al., 1981; Nowicki & Segal, 1974). Chandler et al. (1980) have also related parental locus of control to children's locus of control. It may be, however, that other parenting or familial dimensions exist which are equally important in determining how a child's locus of control develops.

In a correlational study of children aged 7 to 12 years, Mangum (1975) found that, in addition to the warmth and control dimensions in parenting, consistency of parental discipline was also significantly related to children's locus of control orientations. Newhouse (1974) attempted to link children's birth order to locus of control orientations and found that "only" children scored more externally than children with siblings. Mangum (1975) found later birth order associated with externality. These findings suggest that familial factors, in addition to parenting attitudes, may influence a child's locus of control orientation.

Another familial factor which has been shown to be related to adult locus of control orientation is socioeconomic status (Gilmor, 1978; Phares, 1976). In the present study, socioeconomic status was shown to be correlated with adults' and with children's locus of control

scores but was not included in the regression analysis as it was not considered a parenting variable. The research on socioeconomic status and its relationship to children's locus of control orientations is inconclusive. Although several recent studies (Mangum, 1975; Rohner et al., 1980) have suggested that children's locus of control orientations are not related to their parents' socioeconomic status, it is felt that socioeconomic status and the opportunities or lack of opportunities associated with socioeconomic status may play an important part in children's feelings of control over their environments.

Children's own unique characteristics may also play an important part in the development of their locus of control orientations. Lawrence and Winschel's (1975) study suggested that children's locus of control orientations may be influenced by handicapping conditions, such as learning or emotional problems. While children in self-contained special education classrooms were not included in the present study in an attempt to control for this particular factor, there may have been children in this study with learning, physical, or emotional difficulties which contribute greatly to development of their locus of control orientations but which could not be controlled for in this study.

The influence of children's age on locus of control is

also uncertain. According to research by Crandall et al.(1965), locus of control scores vary little from third to twelfth grades. More recently, Rohner et al.(1980) have found that children's locus of control scores become more internal with age. In the present sample, adults' locus of control orientations overall were much more internal than were their children's. Thus, it may be that children's locus of control orientations continue to grow more internal with age as they are able to exert more influence over their environments, suggesting that age may also play a part in determination of the child's locus of control orientation. Additionally, there may be a particular point, developmentally, at which parental child-rearing attitudes are significantly related to the child's locus of control. However, as the child develops beyond this point, the relationship of the child characteristic (i.e. locus of control) to the characteristic source (as hypothesized, parenting dimensions of warmth, control, and locus of control) becomes more extenuated.

The influence of all the above factors (familial, social, or individual), however, is uncertain. In one study by Rohner et al.(1980) age and parental acceptance account for 22% of the variance in children's locus of control scores. Thus, there is a great deal of unexplained variance in children's locus of control scores which may be

attributable to any number of factors. These factors may include other parenting attitudes or behaviors (such as consistency in parenting), familial factors (such as birth order or socioeconomic status), or individual factors (such as physical, emotional or learning difficulties) which could not all be controlled for in the present study.

The next major issue to be addressed in explaining the results of this study is that of the measurement of the constructs examined here. Student report (MacDonald, 1971), behavioral observation (Gordon et al., 1981) and parent self-report (Barling, 1982; Nowicki, 1979) measures have all been employed successfully to demonstrate relationships between children's locus of control orientations and parental locus of control and attitudes toward warmth and control in child-rearing. However, self-report questionnaires, as were employed in this study, are not without their disadvantages. As Maccoby and Martin (1983) note, self-report questionnaires are limited by issues of objectivity, the subjects' lack of awareness of nonverbal or subtle details of their own behavior, and by subject-to-subject variation in interpretation of terminology on the questionnaire. In addition, subjects may tend to answer in what they interpret to be a socially desirable direction. The children's locus of control measure (CNSIE) and the parents' locus of control measure

(ANSIE) used in this study have been shown to be unrelated to social desirability (Nowicki & Duke, 1974a; Nowicki & Strickland, 1973). However, parental responses on the parent measures may have been affected by the perceived social desirability of the choices. It is possible, that in an area as sensitive to parents as their own parenting practices, they may not have been able to view their behavior objectively, or if they did so, to be willing to report what they perceived to be their own socially undesirable parenting behavior. This may have been particularly true as the questionnaires were sent out through, and mostly returned to, the school, thus perhaps raising some concern of review of parenting practices by school personnel.

A second issue relating to the measurement of the parenting variables is the relationship of the parent variables to each other. When the correlational data were examined, it was found that some of the parent variables were significantly related to each other. Specifically, both maternal and paternal locus of control scores were related to maternal warmth and paternal warmth. Fathers' control scores were also related to maternal warmth. Thus, the possible overlap of measurement instruments may have been in part responsible for the lack of more significant findings when the multiple regression analyses were

employed.

The next issue to be discussed in addressing the discrepancy between the findings of this study and past research is the sample which was selected. The subjects for this research were volunteer fourth, fifth, and sixth grade students and the parents of these students attending regular classrooms in two public schools in York County, Virginia. The sample was limited to participants from middle- or upper-class two-parent homes. This choice of population for study may have influenced the results of the research in several ways.

First, as Borg and Gall (1983) indicate, volunteer subjects may likely be a biased sample of the general population, as volunteers have been found to be higher in social class and better educated than nonvolunteers. The selection of these middle- and upper-class families, however, was intentional in this study. It was felt that the results would likely be most applicable to parents who participate in parent education groups, the majority of whom are also volunteers and are from middle- or upper-socioeconomic classes. However, earlier studies by MacDonald (1971), Nowicki (1979), and Gordon et al. (1981) in which significant relationships were found between parenting attitudes and behaviors and locus of control orientations did not control for socioeconomic status. Thus, the

inclusion or exclusion of socioeconomic status may be a factor which in part explains the discrepancy between the previous research findings and those of the current study.

Research by Martin (1975) suggests that this may be the case. In his review of the research on parenting practices and socioeconomic status, he found that middle-class parents generally use parenting techniques which are similar to those of other middle-class parents, but that are different than the parenting techniques of lower-class parents. Martin (1975) noted that middle-class parents showed more warmth, were more permissive, and used more reasoning with their children than did lower-class parents. Lower-class parents were more likely to use shouting, ridicule, and physical punishment with their children (Martin, 1975). As the sample used in this study was limited to middle- and upper-class families, it is possible that parenting styles were not diverse enough to result in significant findings on the parents' measures.

Recommendations

As a result of this study, several recommendations are offered for consideration in future research. The first suggestion is the inclusion of other social or familial variables in addition to those which were considered in this study. For example, another parenting dimension, such as consistency in child-rearing may prove to be significant in

contributing to the development of children's locus of control orientations. A familial, although not a parenting dimension, which might also prove worthy of exploration in locus of control research is birth order.

To address the limitations of a homogeneous, largely middle class, caucasian sample, a broader sample representative of all social classes might be helpful in future parenting and locus of control research. However, it would be important to separate the effects of socioeconomic status from the effects of parenting style and attitudes. It is felt that using a more heterogeneous sample might reveal significant relationships between children's locus of control orientations and parenting variables.

Another possibility for future research might be to examine the parent data for the children who are at the extreme ends (either highly internal or highly external) of the locus of control dimension to determine if differences exist between the parenting attitudes and locus of control of those two groups of parents. Examining the parent and child data for only those parents who are at the extreme ends of the continuums of warmth (acceptance-rejection) and control (permissiveness-restrictiveness) might also reveal significant relationships between parenting attitudes or behaviors and children's locus of control orientations.

A further recommendation speaks to the issue of the

measurement of the variables in this study. As self-report data may be somewhat biased due to problems with objectivity or the perceived social desirability of the self-report instruments, it may be beneficial to acquire behavioral data of parent-child interaction. Collection of data regarding children's perceptions of parental attitudes and comparisons of these perceptions with behavioral observations and/or parent self-report might also reveal findings of interest in the study of parental attitudes and children's locus of control orientations.

APPENDIX A

Research Introduction Letter

February 2, 1987

Dear Parents,

I am currently a doctoral candidate in the Counseling/School Psychology program at the College of William and Mary. I am now (finally!) at the stage where I am collecting data for my dissertation. My dissertation involves gathering information concerning parents' attitudes toward child-rearing and their children's locus of control beliefs. Locus of control beliefs refer to the degree to which children believe that they have control over themselves and their environment. My proposed study has been approved by the Human Subjects Research Committee at the College of William and Mary and by the York County Public Schools.

With your help, I will be collecting information from children in fourth through sixth grades and their parents. What I am requesting of you is for you to complete three pencil-and-paper questionnaires relating to parenting. These will require approximately 15 minutes per questionnaire. I am also asking that you give your written permission for your child to participate in this project. If you give permission, he or she will complete a pencil-and-paper inventory concerning his or her own locus of control. This inventory will require approximately 20 minutes of your child's time, and will be administered in a group setting during the school day. The items on the inventory for your child are not threatening and should pose no problem.

Responses will be coded for computer analysis and all information will be group processed to protect individual confidentiality. As soon as the information has been coded, the original pencil-and-paper questionnaires will be destroyed.

The study which I am conducting has relevance for each of you as a parent, as well as for practitioners in the fields of psychology and education. At the conclusion of the study, the results will be presented and explained at one of your school's PTA meetings and you will have an opportunity to ask questions about the results at that time.

Again, I ask for your help in making this study possible. You will be receiving three parent questionnaires

and the permission form for your child within the next week. I would ask that you return it at your convenience, but no later than February 13.

If you have questions regarding this study, please call me. I will be happy to respond to them. My office phone number is 898-0308.

Thank you,

Mary Margaret Strate, Ed.S.
Certified School Psychologist

Roger R. Ries, Ph.D.
Research Supervisor
College of William and Mary

APPENDIX B

Cover Letter to Parents

February 9, 1987

Dear Parents,

Thank you for considering participating in this research project. Please note that there are separate forms for mothers and fathers. Answer these questions as honestly as you are able. As I am very aware that child-rearing practices are a source of sensitivity to many of us, your responses and those of your child have been coded and will be analyzed as a group to ensure confidentiality.

You may return your completed questionnaires and permission form to your child's teacher in this manila envelope (sealed, please) or you may mail them to: Mary Margaret Strate, School Psychologist, 308 Dare Road, Grafton, Va. Please return them by February 13, 1987.

Upon receipt of these completed questionnaires, your child will be given one inventory, which will be completed in a group of approximately 30 children and which will require approximately 20 minutes of his or her time.

Thank you again for aiding me in this research which may benefit all of us who work with children, whether as parents or as educators, as well as benefitting the children.

Sincerely,

Mary Margaret Strate, Ed.S.
Certified School Psychologist

Roger R. Ries, Ph.D.
Research Supervisor
College of William and Mary

APPENDIX C

Parental Permission Form

I give permission for my child, _____, to participate in the study "A Study of the Relationships of Parents' Locus of Control and Child-Rearing Attitudes to Children's Locus of Control" to be conducted by Mary Margaret Strate. I understand that this participation consists of my child completing a paper-and-pencil measure which requires approximately 20 minutes. I also understand that my child's and my own responses have been coded to ensure confidentiality and will only be analyzed within a group, not individually.

Signature

Date

I do not wish for my child to participate in this study.

Signature

Date

APPENDIX D

Demographic Data Form

Demographic Information

What is your age?

- under 20 years
- 20-29 years
- 30-39 years
- 40-49 years
- 50-59 years
- 60 years or above

What is your ethnic background?

- Black
- Caucasian
- Other

What is your highest level of education?

- Grammar School
- Junior High (Grades 7-9)
- Partial High School (Grades 10-11)
- High School Graduate
- Partial College (1-3 years) or
Associate Degree (2 years) or
Vocational or Technical Diploma
- College Graduate
- Graduate Degree (Masters, Doctorate, etc.)

What is your occupation?(clarify, if necessary)
(if military, give rank and, if appropriate, MOS title)

What is the number of parents in your home? 1 2

APPENDIX E

Adult Nowicki-Strickland Internal-External Scale

(ANSIE)

Adult Nowicki-Strickland Internal-External Scale

Directions:

Answer each question by circling Yes or No. If you agree with the question, circle Yes on your questionnaire. If you disagree with the question, circle No on your questionnaire. There are no right or wrong answers, so please respond as you really believe, not as you think you should believe. Please respond to each question. Do not leave any items blank.

- Yes No 1. Do you believe that most problems will solve themselves if you just don't fool with them?
- Yes No 2. Do you believe that you can stop yourself from catching a cold?
- Yes No 3. Are some people just born lucky?
- Yes No 4. Most of the time do you feel that getting good grades meant a great deal to you?
- Yes No 5. Are you often blamed for things that just aren't your fault?
- Yes No 6. Do you believe that if somebody studies hard enough he or she can pass any subject?
- Yes No 7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?
- Yes No 8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?
- Yes No 9. Do you feel that most of the time parents listen to what their children have to say?

- Yes No 10. Do you believe that wishing can make good things happen?
- Yes No 11. When you get punished does it usually seem it's for no good reason at all?
- Yes No 12. Most of the time do you find it hard to change a friend's (mind) opinion?
- Yes No 13. Do you think that cheering more than luck helps a team to win?
- Yes No 14. Did you feel that it was nearly impossible to change your parents' mind about anything?
- Yes No 15. Do you believe that parents should allow children to make most of their own decisions?
- Yes No 16. Do you feel that when you do something wrong there's very little you can do to make it right?
- Yes No 17. Do you believe that most people are just born good at sports?
- Yes No 18. Are most of the other people your age stronger than you are?
- Yes No 19. Do you feel that one of the best ways to handle most problems is just not to think about them?
- Yes No 20. Do you feel that you have a lot of choice in deciding who your friends are?
- Yes No 21. If you find a four-leaf clover do you believe that it might bring you good luck?

- Yes No 22. Did you often feel that whether or not you did your homework had much to do with the kind of grades you got?
- Yes No 23. Do you feel that when a person your age is angry at you, there's little you can do to stop him or her?
- Yes No 24. Have you ever had a good luck charm?
- Yes No 25. Do you believe that whether or not people like you depends on how you act?
- Yes No 26. Did your parents usually help you if you asked them to?
- Yes No 27. Have you felt that when people were angry with you it was usually for no reason at all?
- Yes No 28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
- Yes No 29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?
- Yes No 30. Do you think that people can get their own way if they just keep trying?
- Yes No 31. Most of the time do you find it useless to try to get your own way at home?
- Yes No 32. Do you feel that when good things happen they happen because of hard work?
- Yes No 33. Do you feel that when somebody your age wants

to be your enemy there's little you can do
to change matters?

- Yes No 34. Do you feel that it's easy to get friends to do
what you want them to do?
- Yes No 35. Do you usually feel that you have little to say
about what you get to eat at home?
- Yes No 36. Do you feel that when someone doesn't like you
there's little you can do about it?
- Yes No 37. Did you usually feel that it was almost useless
to try in school because most other children
were just plain smarter than you were?
- Yes No 38. Are you the kind of person who believes that
planning ahead makes things turn out better?
- Yes No 39. Most of the time, do you feel that you have
little to say about what your family decides
to do?
- Yes No 40. Do you think it's better to be smart than to
be lucky?

APPENDIX F

Parental Acceptance-Rejection Questionnaire

(PARQ)

Parental-Acceptance Rejection Questionnaire

Directions:

The following pages contain a number of statements describing the way different parents act toward their children. Read each statement carefully and think how well it describes the way you treat your child. Work quickly; give your first impression and move on to the next item. Do not dwell on any item.

You have four choices with each sentence. If the statement is basically true about the way you treat your child, then ask yourself, "Is it almost always true?" or "Is it only sometimes true?" If you think you almost always treat your child that way, mark an "x" on the line ALMOST ALWAYS TRUE. If the statement is sometimes true about the way you treat your child, then mark SOMETIMES TRUE. If you feel the statement is basically untrue about the way you treat your child, then ask yourself, "Is it rarely true?" or "Is it almost never true?" If it is rarely true about the way you treat your child mark RARELY TRUE. If you feel the statement is almost never true then mark ALMOST NEVER TRUE.

Remember, there is no right or wrong answer to any statement, so be as frank as you can. Respond to each statement the way you really are rather than the way you might like to be.

TRUE OF ME		NOT TRUE OF ME		
Almost Always True	Sometimes True	Rarely True	Almost Never True	
_____	_____	_____	_____	1. I say nice things about my child.
_____	_____	_____	_____	2. I nag or scold my child when he/she is bad.

- | | | | | |
|-------|-------|-------|-------|---|
| _____ | _____ | _____ | _____ | 3. I ignore my child. |
| _____ | _____ | _____ | _____ | 4. I wonder if I really love my child. |
| _____ | _____ | _____ | _____ | 5. I discuss general daily routines with my child and listen to what he/she has to say. |
| _____ | _____ | _____ | _____ | 6. I complain about my child to others when he/she does not listen to me. |
| _____ | _____ | _____ | _____ | 7. I take an active interest in my child. |
| _____ | _____ | _____ | _____ | 8. I encourage my child to bring friends home and I try to make things pleasant for them. |
| _____ | _____ | _____ | _____ | 9. I make fun of my child. |
| _____ | _____ | _____ | _____ | 10. I ignore my child as long as he/she does not do anything to disturb me. |
| _____ | _____ | _____ | _____ | 11. I yell at my child when I am angry. |
| _____ | _____ | _____ | _____ | 12. I make it easy for my child to confide in me. |

- | | | | | |
|-------|-------|-------|-------|---|
| _____ | _____ | _____ | _____ | 13. I am harsh with my child. |
| _____ | _____ | _____ | _____ | 14. I enjoy having my child around me. |
| _____ | _____ | _____ | _____ | 15. I make my child feel proud when he/she does well. |
| _____ | _____ | _____ | _____ | 16. I hit my child even when he/she may not deserve it. |
| _____ | _____ | _____ | _____ | 17. I forget things I am supposed to do for my child. |
| _____ | _____ | _____ | _____ | 18. My child is a burden for me. |
| _____ | _____ | _____ | _____ | 19. I praise my child to others. |
| _____ | _____ | _____ | _____ | 20. I punish my child when I am angry. |
| _____ | _____ | _____ | _____ | 21. I make sure my child has the right kind of food to eat. |
| _____ | _____ | _____ | _____ | 22. I talk to my child in a warm and affectionate way. |
| _____ | _____ | _____ | _____ | 23. I am impatient with my child. |

- | | | | | |
|-------|-------|-------|-------|---|
| _____ | _____ | _____ | _____ | 24. I am too busy to answer my child's questions. |
| _____ | _____ | _____ | _____ | 25. I resent my child. |
| _____ | _____ | _____ | _____ | 26. I praise my child when he/she deserves it. |
| _____ | _____ | _____ | _____ | 27. I am irritable with my child. |
| _____ | _____ | _____ | _____ | 28. I am concerned who my child's friends are. |
| _____ | _____ | _____ | _____ | 29. I take a real interest in my child's affairs. |
| _____ | _____ | _____ | _____ | 30. I say unkind things to my child. |
| _____ | _____ | _____ | _____ | 31. I ignore my child when he/she asks for help. |
| _____ | _____ | _____ | _____ | 32. I am unsympathetic to my child when he/she is having trouble. |
| _____ | _____ | _____ | _____ | 33. I make my child feel wanted and needed. |
| _____ | _____ | _____ | _____ | 34. I tell my child that he/she gets on my nerves. |

- | | | | | |
|-------|-------|-------|-------|---|
| _____ | _____ | _____ | _____ | 35. I pay a lot of attention to my child. |
| _____ | _____ | _____ | _____ | 36. I tell my child how proud I am of him/her when he/she is good. |
| _____ | _____ | _____ | _____ | 37. I hurt my child's feelings. |
| _____ | _____ | _____ | _____ | 38. I forget events that my child thinks I should remember. |
| _____ | _____ | _____ | _____ | 39. When my child misbehaves, I make him/her feel I don't love him/her anymore. |
| _____ | _____ | _____ | _____ | 40. I make my child feel what he/she does is important. |
| _____ | _____ | _____ | _____ | 41. When my child does something wrong, I threaten or frighten him/her. |
| _____ | _____ | _____ | _____ | 42. I like to spend time with my child. |
| _____ | _____ | _____ | _____ | 43. I try to help my child when he/she is scared or upset. |
| _____ | _____ | _____ | _____ | 44. When my child misbehaves, I shame him/her in front of his/her playmates. |

- | | | | | |
|-------|-------|-------|-------|---|
| _____ | _____ | _____ | _____ | 45. I avoid my child's company. |
| _____ | _____ | _____ | _____ | 46. I complain about my child. |
| _____ | _____ | _____ | _____ | 47. I respect my child's point of view and encourage him/her to express it. |
| _____ | _____ | _____ | _____ | 48. I compare my child unfavorably with other children. |
| _____ | _____ | _____ | _____ | 49. When I make plans, I take my child into consideration. |
| _____ | _____ | _____ | _____ | 50. I let my child do things he/she thinks are important even if it is inconvenient for me. |
| _____ | _____ | _____ | _____ | 51. When my child misbehaves, I compare him/her unfavorably other children. |
| _____ | _____ | _____ | _____ | 52. I leave my child to someone's else's care (e.g. a neighbor or relative). |
| _____ | _____ | _____ | _____ | 53. I let my child know he/she is not wanted. |
| _____ | _____ | _____ | _____ | 54. I am interested in the things my child |

does.

- | | | | | |
|-------|-------|-------|-------|---|
| _____ | _____ | _____ | _____ | 55. I try to make my
child feel better
when he/she is
hurt or sick. |
| _____ | _____ | _____ | _____ | 56. I tell my child I am
ashamed of him/her
when he/she
misbehaves. |
| _____ | _____ | _____ | _____ | 57. I let my child know I
love him/her. |
| _____ | _____ | _____ | _____ | 58. I treat my child
gently and kindly. |
| _____ | _____ | _____ | _____ | 59. When my child misbe-
haves, I make him/her
feel ashamed or
guilty. |
| _____ | _____ | _____ | _____ | 60. I try to make my
child happy. |

APPENDIX G

Attitude Toward Freedom of Children Scale-Form II

(ATFC-II)

Attitude Toward Freedom of Children Scale-Form II

Answer each statement by circling Yes or No. If you agree with the statement, circle Yes on your questionnaire. If you disagree with the statement, circle No on your questionnaire. There are no right or wrong answers, so please answer these as you really feel, not as you think you should feel. Please respond to each statement. Do not leave any items blank.

- | | | |
|-----|----|--|
| Yes | No | 1. Except in danger situations, a child should never be expected to obey without being given an adequate reason. |
| Yes | No | 2. Children should be taught to respect the wishes of their elders. |
| Yes | No | 3. When imposing restrictions upon a child, a parent should have well considered reasons and should be willing to give them. |
| Yes | No | 4. Children should be required to eat everything that is set before them. |
| Yes | No | 5. Children should never be forced to do a thing they do not wish to do. |
| Yes | No | 6. Rigid training for obedience should be started in infancy. |
| Yes | No | 7. I believe in placing upon young children but few restrictions and enforcing these strictly. |
| Yes | No | 8. In all quarrels between young children adults should arbitrate. |
| Yes | No | 9. A child should never be required to say "please". |

- Yes No 10. The will of the parent should be dominant over the will of the child.
- Yes No 11. In their explorations of property, children should always be under close supervision.
- Yes No 12. A child should be given more than one chance to obey.
- Yes No 13. It is the parents' task to make children want to do what is good for them.
- Yes No 14. A child's liberty should be restricted in danger situations only.
- Yes No 15. When a child is absorbed in his/her own immediate affairs, a parent should consider the fact before making a demand.
- Yes No 16. Natural forces, not individuals, should discipline the young child.
- Yes No 17. Little children should be forced to obey, but the control of older children should be less exacting.
- Yes No 18. Within the limits of justice and safety, a young child in his/her play should be free from adult interference.
- Yes No 19. The older pre-school child should be allowed a certain amount of freedom in making decisions and assuming the consequences.
- Yes No 20. A child should be allowed to do as he/she wishes in all things.
- Yes No 21. A child should be given a choice in every

matter possible.

- Yes No 22. Children should always be supervised by their parents in their work activities.
- Yes No 23. From a selection of foods chosen by an adult as suitable for the young child, the child should be allowed to choose freely.
- Yes No 24. The "Puritan" method of bringing up children is the best method.
- Yes No 25. If a child does not comply at once with a request in matters pertaining to health, he/she should be forced to do so.
- Yes No 26. Children's own limitations in relation to their physical environment should be all that should restrict them in their play activities.
- Yes No 27. The whims of the child should be repressed at all times.
- Yes No 28. Within certain selected situations, children should be allowed to assert their personal likes and dislikes.
- Yes No 29. Children should be permitted to do as they wish with their own playthings.
- Yes No 30. A child should never be allowed openly to disagree with his/her parents.
- Yes No 31. In the face of an emergency situation the immediate obedience of the child should be required.
- Yes No 32. A child should be encouraged but not required

to say "please" when he/she makes a request.

Yes No 33. A child should not be allowed to destroy or
abuse his/her own playthings.

APPENDIX H

Children's Nowicki-Strickland Internal-External Scale

(CNSIE)

Children's Nowicki-Strickland Internal-External Scale

Directions:

Answer each question by circling Yes or No. If you agree with the question, circle Yes on your questionnaire. If you disagree with the question, circle No on your questionnaire. There are no right or wrong answers, so please respond as you really believe, not as you think you should believe. Please respond to each question. Do not leave any items blank.

- Yes No 1. Do you believe that most problems will solve themselves if you just don't fool with them?
- Yes No 2. Do you believe that you can stop yourself from catching a cold?
- Yes No 3. Are some kids just born lucky?
- Yes No 4. Most of the time do you feel that getting good grades means a great deal to you?
- Yes No 5. Are you often blamed for things that just aren't your fault?
- Yes No 6. Do you believe that if somebody studies hard enough he or she can pass any subject?
- Yes No 7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?
- Yes No 8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?
- Yes No 9. Do you feel that most of the time parents listen to what their children have to say?

- Yes No 10. Do you believe that wishing can make good things happen?
- Yes No 11. When you get punished does it usually seem it's for no good reason at all?
- Yes No 12. Most of the time do you find it hard to change a friend's (mind) opinion?
- Yes No 13. Do you think that cheering more than luck helps a team to win?
- Yes No 14. Do you feel that it's nearly impossible to change your parents' mind about anything?
- Yes No 15. Do you believe that your parents should allow you to make most of your own decisions?
- Yes No 16. Do you feel that when you do something wrong there's very little you can do to make it right?
- Yes No 17. Do you believe that most kids are just born good at sports?
- Yes No 18. Are most of the other kids your age stronger than you are?
- Yes No 19. Do you feel that one of the best ways to handle most problems is just not to think about them?
- Yes No 20. Do you feel that you have a lot of choice in deciding who your friends are?
- Yes No 21. If you find a four-leaf clover do you believe that it might bring you good luck?

- Yes No 22. Do you often feel that whether or not you do your homework has much to do with the kind of grades you get?
- Yes No 23. Do you feel that when a person your age decides to hit you, there's little you can do to stop him or her?
- Yes No 24. Have you ever had a good luck charm?
- Yes No 25. Do you believe that whether or not people like you depends on how you act?
- Yes No 26. Will your parents usually help you if you ask them to?
- Yes No 27. Have you felt that when people were mean to you it was usually for no reason at all?
- Yes No 28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
- Yes No 29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?
- Yes No 30. Do you think that kids can get their own way if they just keep trying?
- Yes No 31. Most of the time do you find it useless to try to get your own way at home?
- Yes No 32. Do you feel that when good things happen they happen because of hard work?
- Yes No 33. Do you feel that when somebody your age wants

to be your enemy there's little you can do
to change matters?

- Yes No 34. Do you feel that it's easy to get friends to do
what you want them to do?
- Yes No 35. Do you usually feel that you have little to say
about what you get to eat at home?
- Yes No 36. Do you feel that when someone doesn't like you
there's little you can do about it?
- Yes No 37. Do you usually feel that it's almost useless
to try in school because most other children
are just plain smarter than you are?
- Yes No 38. Are you the kind of person who believes that
planning ahead makes things turn out better?
- Yes No 39. Most of the time, do you feel that you have
little to say about what your family decides
to do?
- Yes No 40. Do you think it's better to be smart than to
be lucky?

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Abstract

A Study of the Relationships of Parents' Locus of Control and Child-Rearing Attitudes to Children's Locus of Control

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The College of William and Mary in Virginia, May 1987

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The purpose of this study was to investigate the relationship between children's locus of control and parental locus of control and attitudes toward warmth and control in child-rearing. It was hoped that the degree to which the parent variables were related to children's locus of control would be useful in suggesting specific emphases for parent training and counseling.

The subjects chosen for this research were public school children attending fourth, fifth, or sixth grades in an eastern Virginia school system and their parents. The sample was limited to 233 volunteers from middle to upper socioeconomic two-parent homes.

Participating parents completed three self-report measures (locus of control, warmth, control), after which the students completed the children's locus of control measure. The data collected were then organized according to students' gender and locus of control score. Four groups were derived: internal males, external males, internal females, and external females. Six parent variables were then examined for each group. To investigate the research hypotheses, correlational analyses, followed by multiple regression analyses were performed.

Results of the research suggest that for only one group, "internal males", were the relationships between locus of control scores and parents' variables significant. For this group, the data suggest that males who have internal locus of control orientations may have mothers and fathers who also have internal locus of control orientations and who display a high degree of warmth or acceptance in

child-rearing. It was also found that when the locus of control scores of all four groups were combined they were significantly related to fathers', but not to mothers', locus of control scores.

These relationships, while statistically significant, were extremely weak. This suggests that there may be other variables (social, familial, or individual) which were not considered in this research which may interact to influence the development of children's locus of control orientations. Recommendations are given for future research which suggest the inclusion of these variables.