THE RELATIONSHIP BETWEEN PARENTS' PERCEPTION OF FAMILY ENVIRONMENT AND PROSOCIAL BEHAVIOR IN PRESCHOOL-AGED CHILDREN

by

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The purpose of this study was to identify family variables which might influence the development of children's prosocial behavior. It was hypothesized that there would be a relationship between both mothers' and fathers' scores on the relationship, personal growth, and system maintenance dimensions of the Family Environment Scale (Moos, Insel & Humphrey, 1974) and children's demonstrated prosocial behavior.

The subjects were 34 boys and girls, aged 37 to 68 months and the parents of these children. A one hour video-tape of each child was made as he/she played with others in a nursery school setting. The tapes were coded for aspects of positive social behavior. Parents were administered the Family Environment Scale.

Multivariant procedures were used to clarify the importance to children's prosocial behavior of the three family environment dimensions. A multiple regression analysis using controlled entry was conducted for each of the hypotheses of the study. Age of the child was entered first into each analysis followed by sex of child as control factors. These variables were followed by either mothers' or fathers' scores on the three dimensions of the Family Environment Scale. No significant relationships were found between the family environment predictor variables and children's positive social behavior.

Based on the results of the study, it was concluded that the extent to which parents perceive the home as having an environment which emphasizes help and support of family members, open expression of

feelings, personal growth, and obedience to authority and rules does not relate to the demonstration of positive social behavior in their preschool children.

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CHAPTER I

INTRODUCTION

In the first stage of infancy, human beings exhibit only self-gratifying behavior. By the time they become adults, they exhibit positive social behavior, directed to the well-being of others, often at the expense of self-gratification (Rushton, 1976). Scientists have attempted to understand the necessary and sufficient conditions for this developmental process. If indeed our society values positive social behavior and wishes to foster its development, it is important to examine the precursors to and the emergence of such behavior in young children. Such an examination might contribute to the recognition of the antecedents to prosocial behavior and to the construction of environments which would enhance the development of behavior such as cooperation, responsibility, helping, sharing, comforting, and showing concern for others.

Although research in altruism using elementary school-aged children and adults as subjects has been conducted (Midlarsky & Bryan, 1972; Grusec, 1972; Friedrich & Stein, 1975; Macaulay & Berkowitz, 1970), studies involving the preschool-aged child are limited in number (Yarrow & Waxler, 1976; Rutherford & Mussen, 1968; Rheingold, Hay & West, 1976). If parents and teachers of preschool children are to be educated as to how to increase the frequency of prosocial behavior, more information regarding the emergence of such behavior in the years before school is needed (Mussen & Eisenberg-Berg, 1977). Since the preschool child, in most instances, spends the majority of his time

within the family setting, it is particularly important to study family variables which effect the demonstration of positive social behavior.

There is no one theory which attempts to explain fully the acquisition of positive social behavior. Psychoanalytic, cognitive development, and social learning theories have generated hypotheses relating to some antecedents of the various forms of such behavior. Attempts have also been made to explain the development of prosocial behavior through biological (Wilson, 1975) and empathetic (Hoffman, 1975b) theories.

The Problem

The increase in violence, crime, divorce, and child abuse in our society within the last decade indicates a need for behavioral scientists to accumulate information as to how people develop empathy and feelings of concern for others and come to act in kind, humane, and positive social ways. Prior to the 1960's, social and developmental psychologists focused on the study of negative aspects of social behavior, such as aggression, jealousy, fear, and prejudice, in an attempt to determine why people act in antisocial ways and to determine how such behavior might be modified. Although techniques were found which decreased negative behavior, increases in positive social behavior were not found to occur simultaneously.

In addition to findings reported above, the social happenings of the sixties, including demonstrations to emphasize equality for all, the peace movement, and, perhaps most significantly, the widely publicized Kitty Genovese stabbing in which thirty-eight people witnessed a young girl murdered and did nothing to help, spurred scientists to

study the development of positive social behavior (Milgram & Hollander, 1964; Rosenthal, 1964). According to Wispe (1972, p. 7), "Behavior characterized as positive or prosocial, if generalized to most social situations, would be expected to produce or maintain the physical and psychological well-being of the other person involved." To date, psychologists have studied various manifestations of positive social behavior, including altruism, sympathy, attempts to improve the general welfare of others, helping others in distress, sharing possessions, and donating to charity. Social scientists have speculated that an increase in positive social behavior would, presumably, contribute to an improvement in the quality of life and the human condition. The relationships between individuals both within families and society might then be characterized by understanding, cooperation, concern, and, hopefully, satisfaction and happiness.

Numerous studies of altruism have been conducted using adults as subjects (Macaulay & Berkowitz, 1970). Altruism and prosocial behavior have been investigated only to a limited degree in children, however. The existing studies have generally used children of elementary school-age as subjects, have restricted the types of positive social behavior examined, have examined behavior within a laboratory situation or through paper-and-pencil measurements, and have rarely examined parents' behavior, attitudes, and values as they influence positive social behavior in children. Answers, therefore, have not been provided to such fundamental questions as "When is positive social behavior first displayed by an individual?", and "Is prosocial behavior reflective of familial dimensions such as cohesion, expressiveness, conflict,

independence, achievement orientation, intellectual-cultural orientation, moral-religious emphasis, organization, control, and activity-recreational emphasis?". In particular, more information is needed as to the precursors of prosocial behavior as they relate to the family environment. According to Mussen and Eisenberg-Berg (1977, p. 100), " . . . there are many other dimensions of child rearing whose consequences for prosocial behavior have not been adequately researched--permissiveness, democracy in decision making, imposition of restrictive rules, family cohesiveness, preaching and lectures by parents, and many others."

The present research is an observational study of the prosocial behavior of 3, 4, and 5 year old children in a nursery school setting, at the University of New Hampshire Child-Family Center. The children attended the Center for two and one-half hours, four days a week. Dimensions of the home environment of the children were investigated to determine what attitudes, values, or behavior of the children's mothers and fathers influenced their development of positive social behavior.

Several components of prosocial development that represent dimensions of altruism used in this study have been identified by other investigators, and they include: cooperation (Friedrich, Stein & Kipnis, 1974); teacher-led cooperation (Friedrich, Stein & Kipnis, 1974); helping (Hansen, Goldman & Baldwin, 1975); sharing (Hansen, Goldman & Baldwin, 1975); finding or suggesting alternatives to an aggressive or stressful act (Friedrich, Stein & Kipnis, 1974); showing concern (Hansen, Goldman & Baldwin, 1975; Wareing & Strayer, 1976; Friedrich, Stein & Kipnis, 1974); accepting responsibility (Friedrich, Stein & Kipnis,

1974); offering physical affection and acceptance (Charlesworth & Hartup, 1965); offering approval and stating positive feelings toward another (Charlesworth & Hartup, 1965); giving protection (Charlesworth & Hartup, 1965); and greeting another warmly (Charlesworth & Hartup, 1965).

The family dimensions studied include relationship, personal-growth, and system-maintenance. These dimensions were assessed using the Family Environment Scale (Moos, Insel & Humphrey, 1974; Moos & Moos, 1976; Rosenthal, 1975; Scoresby & Christensen, 1976; Bader, 1976; Moos, Bromet, Tsu & Moos, 1977; Bromet & Moos, 1977).

Assumptions

The following assumptions were basic to this study:

1. Prosocial behavior can be observed in children ages 3, 4, and 5 years. The results of various research studies (Rutherford & Mussen, 1968; Yarrow & Waxler, 1976; Friedrich & Stein, 1973) demonstrated that positive social behavior can be observed in preschool children, and precursors of such behavior are seen in children as young as 9 months of age (Rheingold, Hay & West, 1976).

2. Observing children in a naturalistic setting, such as in their own home or preschool environment, is the most valid and reliable means of assessing their prosocial behavior. According to Mussen and Eisenberg-Berg (1977, p. 18), " . . . Naturalistic observation takes a great deal of time and effort, but, in our opinion, it is likely to provide a highly dependable and accurate estimate of the child's propensities to behave prosocially."

3. Prosocial behavior in children is relatively stable over time. The results of several studies involving preschool children, especially those based on naturalistic observations and measuring various aspects of prosocial behavior, have found positive social actions to be consistent, general, and stable over time (Rutherford & Mussen, 1968; Block & Block, 1973).

4. Family social environments can be successfully assessed with reliable, validated questionnaires (Moos & Moos, 1976; Rosenthal, 1975; Scoresby & Christensen, 1976; Bader, 1976; Moos, Bromet, Tsu & Moos, 1977; Bromet & Moos, 1977).

Hypotheses

H_1 There will be a relationship between mothers' scores on the Relationship Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_2 There will be a relationship between fathers' scores on the Relationship Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_3 There will be a relationship between mothers' scores on the Personal Growth Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_4 There will be a relationship between fathers' scores on the Personal Growth Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_5 There will be a relationship between mothers' scores on the System Maintenance Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_6 There will be a relationship between fathers' scores on the System Maintenance Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

Importance of the Study

Individuals, families, businesses, and other social systems would benefit greatly if more were known as to how individuals develop behavior which helps and supports others. In the past decade, social scientists have begun to study positive social behavior, behavior generally considered to enhance relationships and promote the physical and psychological well-being of individuals.

As stated previously in this chapter, the majority of prosocial studies have examined the effects of variables on adults and school-aged children, often in laboratory or contrived settings. This research has contributed significantly to a knowledge of the situational variables which influence specific prosocial behavior. If a comprehensive theory of prosocial behavior is to be obtained, however, it seems necessary to examine the emergence of such behavior in childhood, and its development throughout the life-span. Research on positive social behavior in preschool-aged children, the stage of life when such behavior is beginning to emerge, has been limited (Mussen & Eisenberg-Berg, 1977).

Studies by Rutherford and Mussen (1968) and Block and Block (1973) indicate that prosocial behavior may generalize and maintain consistency and stability over time. If young children are capable of learning prosocial behavior during the preschool years and if this behavior can be maintained over time, it is important to isolate the variables

within the child's common environment, generally his home, which foster his prosociability. Although the home environment variables of parental discipline and nurturance have been studied in relation to prosocial behavior in children (Hoffman, 1963; Hoffman & Saltzstein, 1967; Dlugokinski & Firestone, 1974; Hoffman, 1975a), information on the effects of other parental and family variables have not been investigated (Mussen & Eisenberg-Berg, 1977). Information on such variables, including those of cohesion, conflict, expressiveness, independence, and others, is needed. By educating parents as to the family dimensions which relate to altruism, modifications in home environments might be made which would foster positive social behavior. It would then seem likely that prosocial behavior would be maintained to some degree throughout childhood, thereby influencing adult behavior.

Information regarding family dimensions needs to be assessed from both mothers and fathers of young children. Results of parent-child studies by Hoffman (1975a) and Hoffman and Saltzstein (1967) suggest that the influence of mothers and fathers may vary depending on sex of the child. Clarification of the interrelationships is important for future research and for educational purposes.

Also to be explored through the assessment of mothers and fathers is the effect on children which may result from the possible changing roles of men and women in our society. More women are working outside the home today than in previous years (i.e., 1960, 37.1 percent, vs. 1976, 40.7 percent). Men, therefore, may assume a more important role in child-rearing. It might be presumed that the attitudes, values, and behavior of men and women regarding child rearing are changing.

Today's working woman may be competitive, powerful, and demanding of responsibility from her children. Today's father may be nurturant and democratic when interacting with his family. Although it seems logical to draw such conclusions, caution must be taken. Research by Hobson (1977) did not demonstrate significant differences in child rearing attitudes and behaviors as between androgynous parents and parents who were highly sexed and stereotyped parents. Although women may work outside of the home, both men and women frequently identify women with the traditional roles of child rearing and caring for the home. This may be due to biological imperatives, socialization experiences, men's refusal to participate in these roles, or a combination of the preceding (Weitz, 1977). According to Weitz (1977, p. 83), "In a climate of changing sex roles, the parental attitude is probably one of compromise between the deeply ingrained patterns of the parents' own childhood and sex role identities and the pressures of the contemporary world."

With the knowledge gained from studies in prosocial behavior, researchers can begin to compile information needed by the parents and educators who shape the prosocial development of society's children. Findings may be presented through written literature, parent and teacher education programs, and family forums. Parents and teachers can be educated in the recognition of emerging prosocial behavior and the techniques, methods, and adult behavior and attitudes which may influence prosocial development in children. Findings may also heighten the awareness of adults as to the consequences of socializing children to act in accordance with the well-being of others rather than

with the well-being of the self. Answers may be sought to questions such as: 1) "To what extent should children meet the needs of others versus meeting their own needs?", 2) "What attitudes, values, and beliefs of parents and families would need to be modified if children were to become more prosocial?", and 3) "What would be the impact upon individuals and society as a whole if children were raised to act in more positive social ways?" These are only a few of the philosophical questions which might be addressed if more knowledge were accumulated as to the factors influencing prosocial behavior.

In summary, more information regarding the factors relating to positive social behavior in children is needed before a theory of prosocial development can be established. With additional knowledge of development, parents and educators could be informed as to how to increase positive social behavior in young children and questions could be raised as to the consequences of socializing children to act in positive social ways. Such information would, it is hoped, contribute to improving the psychological and physical well-being of individuals and to the building of supportive, satisfying relationships among people.

Definition of Terms

The following definitions of key terms are provided for clarity. References following the definitions refer to other studies or review articles which have incorporated these definitions.

Prosocial or positive social behavior - behavior expected to produce or maintain the physical or psychological well-being of the other person involved in a social situation (Wispe, 1972)

Altruistic behavior - term often used interchangeably with positive or prosocial behavior, but generally limited in definition to any action intended to benefit another with high cost and no obvious social or material reward for the person acting in an altruistic manner (Bryan & London, 1970)

Relationship dimension - this dimension assesses the extent to which family members feel that they belong to and are proud of their family, the extent to which there is open expression within the family, and the degree to which conflictive interactions are characteristic of the family (Moos & Moos, 1976)

Personal growth dimension - this dimension assesses the emphasis within the family on certain developmental processes that may be fostered by family living including those of autonomy, achievement, intelligence and culture, activity and recreation, and morality and religion (Moos & Moos, 1976)

System maintenance dimension - this dimension assesses the structure or organization within the family and the degree of control exerted by family members vis-a-vis each other (Moos & Moos, 1976)

Family cohesion - the extent to which family members are concerned and committed to the family and the degree to which they are helpful and supportive to each other (Moos & Moos, 1976)

Family expressiveness - the extent to which family members are allowed and encouraged to act openly and to express their feelings directly (Moos & Moos, 1976)

Family conflict - the extent to which the open expression of anger and aggression and generally conflictive interactions are characteristic of the family (Moos & Moos, 1976)

Family independence - the extent to which family members are encouraged to be assertive, self-sufficient, to make their own decisions, and to think out things for themselves (Moos & Moos, 1976)

Family achievement orientation - the extent to which different types of activities (e.g., school and work) are cast into an achievement-oriented or competitive framework (Moos & Moos, 1976)

Family intellectual-cultural orientation - the extent to which the family is concerned about political, social, intellectual, and cultural activities (Moos & Moos, 1976)

Family active-recreational emphasis - the extent to which the family participates actively in various recreational and sporting activities (Moos & Moos, 1976)

Family moral-religious emphasis - the extent to which the family actively discusses and emphasizes ethical and religious issues and values (Moos & Moos, 1976)

Family organization - the extent to which order and organization are important in the family in terms of family activities, financial planning, and the explicitness and clarity of rules and responsibilities (Moos & Moos, 1976)

Family control - the extent to which the family is organized in a hierarchical manner, the rigidity of rules and procedures, and the extent to which family members order each other around (Moos & Moos, 1976)

Limitations

Several limitations of the study are acknowledged. Generalizations from this study will be restricted to white, middle-class children aged 3, 4, and 5 years of age. Further, the center where the data were collected was not selected randomly. The Child-Family Center was selected on the basis of its availability and the willingness of the staff and the Department of Home Economics to cooperate in the study. Although children were selected randomly from those applying to the center, parents willing to enroll their children in a University-related preschool program may differ from other parents along some dimension(s). An additional limitation may be that teachers in the Center encourage or reward prosocial behavior, thus increasing the frequency of occurrence. Teachers in other preschool programs, or parents within the home situation, may not act accordingly. Since children were enrolled in the school for only one month prior to the beginning of data collection, however, the chances of significant behavioral changes occurring within this time period would seem unlikely.

Organization of the Dissertation

Chapter II of this presentation provides a review of the literature on prosocial development in children. Methodology is the major focus in Chapter III: the design used for the study, the sample selection, the instrument descriptions, and the observational record form. Statistical procedures to be utilized in the testing of the six hypotheses of the study are also described. Chapter IV will present the results of the analysis of the data in both narrative and tabular forms. Chapter V will summarize the findings and set forth the conclusions and recommendations of the study.

CHAPTER II

REVIEW OF RESEARCH

Theoretical Explanations for the Development of Positive Social Behavior

Currently, there appear to be three major theoretical approaches to the explanation of prosocial development in children: psychoanalytic theory, cognitive developmental theory, and social learning theory. These approaches may be considered partial theories since none explain, in total, the development of positive social behavior. Rather, they contribute concepts and hypotheses relating to some antecedents of the various forms of prosocial behavior. Research stemming from the three theories frequently differs according to the aspect of prosocial behavior examined and to the conceptualization of the socialization process. In addition to the three major theories, several additional theories examining specific antecedents of altruism have also been developed. Two of these, the empathetic and biological theories of altruism, will be reviewed along with the three major theoretical approaches.

Psychoanalytic Theory

The structure of personality, according to psychoanalytic theory, which appears to be most relevant in the examination of prosocial behavior is the superego. As a resolution of the Oedipus complex, the preschool child identifies with, or incorporates and internalizes, the parent's behavior, attitudes, values, and morals. The superego is the internal representation of the values and ideals of society, obtained

through identification, and enforced by a system of rewards and punishments imposed upon the child (Hall & Lindzey, 1970).

Psychoanalytic theory has contributed an awareness, in researchers of prosocial behavior, as to the importance of the preschool years as a period of life when behaviors begin to emerge which will influence later, adult behavior. Relevant studies by Yarrow and Waxler (1976), Hoffman (1963), and others will be reviewed in a later section. These investigators particularly stressed the importance of the preschool child's relationship with a significant adult and the effect of this relationship on the child's tendency to value altruism and to act prosocially. According to Mussen and Eisenberg-Berg (1977, p. 27), " . . . identification is of extreme importance in the internalization of humanistic values and patterns of prosocial behavior." Preschool children in the process of resolving the Oedipus complex, whose parents are nurturant, generous, helpful, and kind, would be prone to incorporate these prosocial behaviors and values through the process of identification.

Cognitive Developmental Theory

The cognitive developmental approach to prosocial behavior and development stresses the cognitive stages which emerge from the interaction of changing mental structures and environmental events. In order to act in a prosocial manner, an individual must be able to perceive a situation accurately, evaluate the needs and emotions of another, determine what action will be beneficial, and carry out the prosocial act (Mussen & Eisenberg-Berg, 1977). Due to young children's particular stage of cognitive development, it can be assumed that they

would have difficulty in perceiving and interpreting another's need for help, aid, sympathy, etc. In support of this assumption are findings by Feshbach and Roe (1968) which indicate that young children have difficulty recognizing facial expressions indicating emotions other than sadness or happiness. An expression indicating fear may very well be misinterpreted or ignored. Further, children's limited experiences would handicap them in terms of knowledge as to what to do in order to help another. For example, Staub (1970b) found kindergarten children, when required to help another, afraid and unaware of how to help a distressed peer. Accurate perceiving, thinking, reasoning, problem solving, and decision making, all presumably necessary for prosocial behavior, would seem less than fully developed in preschool children, thus interfering with their attempts to act prosocially.

According to Piaget (1948), preschool children are at the "preoperational" stage of development, characterized by egocentrism, the belief that everyone shares their perspective of a situation or event. Various studies indicate that young children before the age of seven are unable to take the role of another, either cognitively, perceptually, or affectively (Chandler & Greenspan, 1972). This inability is presumed to interfere with children's empathic ability, an ability thought necessary in order to act prosocially.

Moral judgment and reasoning, stressed by Piaget (1948) and Kohlberg (1964), have also been examined to a limited extent in conjunction with prosocial behavior. Moral stages are considered invariant in sequence and hierarchical. Movement from one stage to another is the result of the interaction of maturation of the individual and

experience. If moral reasoning and judgment are components of prosocial behavior, it might be assumed that children within a given age group who have a higher level of moral judgment ability would tend to be more prosocial than corresponding children with lower levels of moral judgment or to act prosocially due to different motivating factors. Findings of a study involving 5- to 8-year-old subjects support the assumption of a relationship between level of morality and level of altruism (Olejnik, 1975). Several other studies examining the relationship will also be reviewed in a later section of this chapter.

Social Learning Theory

In contrast to the psychoanalytic viewpoint stressing internal motives, drives, and identification is the social learning theory, which stresses the influence of the external environment upon an individual's tendency to act prosocially. Social learning theorists view reinforcement and modeling as the most powerful socializing techniques (Bandura, 1969). Young children are frequently rewarded for helping, sharing, and being generous, or punished for not acting in these ways. Altruistic acts often occur without any indication of direct reinforcement to the child, however. Work by Ferster and Skinner (1957) demonstrated that intermittently reinforced behaviors persist over an extended period and are difficult to extinguish. Goldiamond (1968) also suggested that reinforcers may be subtle and that the original reinforcement schedule may render the behavior extremely resistant to extinction.

It would seem that the most prevalent and accepted social learning approach to altruism is that proposed by Aronfreed (1968). Aronfreed

outlined a two-stage learning theory to account for altruism. First, children must acquire empathic sensitivity, through conditioning, to the cues of another's distress. They must "feel" or experience an affective state similar to that of the distressed individual. In order for this to develop, children must experience their own distress and pleasure in conjunction with those of others--generally, those of their parents. Infants are happy when nurtured, or distressed when experiencing their parent's anger. Thus, empathic ability is conditioned in children and they vicariously experience changes in affective states in others.

The second part of Aronfreed's theory is that following the development of empathic sensitivities, changes in affective states serve as reinforcers for acquiring and maintaining altruistic behavior. Helping behavior is acquired because it is instrumental in effecting changes in these vicariously experienced affective states. Basically, children learn to act in a manner which produces affective cues in others which are reinforcing to them. Aronfreed postulated that the reward for altruism is the increase in pleasure or decrease in distress which children experience vicariously as a result of the conditioning of their affectivity to the cues of affectivity of the other. Eventually, the child develops a cognitive representation of the effect of his behavior. The affective value of an act of altruism becomes directly attached to the cognitive label of the consequences of the act for another person. The value of the act is intrinsic, since it is internally reinforced by the affective state coupled with the corresponding label.

The principles outlined above were demonstrated in a study by Aronfreed (1970). Through temporal contiguity and conditioning, cues that had communicated an experimenter's feelings of happiness aroused similar emotions in children observing and interacting with the experimenter. Thus, subjects chose to press a lever to activate a flashing red light instead of one that dispensed candy. The external rewards of smiling and hugging directed to the children, which had become associated with the experimenter's happiness at seeing the red light, acquired a cognitive, internal representation and thus controlled the children's behavior.

According to social learning theory, modeling is perhaps the most important technique in socialization (Bandura, 1969). Various characteristics of the model, such as attractiveness, power, prestige, etc. make the model's behavior salient to the observer. In connection with the concept of altruism, the affective state of the model also appears to influence prosocial behavior. If children have acquired empathic sensitivity, they should become aroused by emotional states in the model. Thus emotion aroused in the model when he acts in an altruistic manner should also be experienced by the observing child. The affective sensitivity should provide motivation to attend to the modeled behavior and to repeat it. Children become reinforced when they operate on their environment in order to obtain those affective experiences contingent upon acting prosocially. Thus, the model provides information about appropriate operant behavior and provides displays of contiguous affectivity.

Social learning theory seems to contribute substantially to the understanding of prosocial behavior in young children. Many studies reviewed under "Factors Associated with Prosocial Behavior" are based on this theoretical framework (Rushton, 1975; Rosenhan & White, 1967; Grusec, 1971). According to Maccoby (1968, p. 258), in terms of socialization, " . . . parents serve as the most consistently available and salient models as well as the primary dispensers of reinforcement during the early part of the child's life." Since the focus of the present research study is children's prosocial behavior as it relates to family dimensions, findings regarding parental variables are frequently examined within the framework of social learning theory.

Theory of Empathy

The most recent, and seemingly most fully developed, theory of altruistic motivation is that presented by Hoffman (1975b). Hoffman's theory encompasses both affective and cognitive components and is developmental in nature. Empathic distress, or the " . . . experiencing of another person's painful emotional state," develops in infancy, due either to an innate mechanism contributing to the learning of empathy or to classical conditioning (Hoffman, 1975b, p. 613). Hoffman believes that the infant is unable to differentiate himself from others, and thus distress in another elicits a "global" empathic distress response in the infant. When the child is able to differentiate himself cognitively from another at approximately one year of age, he is capable of demonstrating sympathetic distress. During the preschool years children become more aware that others have "inner states" which differ from their own and perspectives based on their own needs and

experiences. With increase in age and experience, children are motivated to put themselves in another's place and attempt to determine the source of distress. Hoffman states, however, that the young child is confined to another's immediate, transitory, and situation specific distress. From six to nine years of age, the child, due to cognitive maturity and the awareness of the continuing existence of people, becomes aware of general distress conditions such as deprivation, oppression, illness, etc. Hoffman views sympathetic distress as an altruistic motive since: (1) it is aroused by distress in another, (2) the goal of the subsequent behavior is to help another, and (3) the gratification for the observer is contingent on his acting to reduce another's distress. Hoffman acknowledges that sympathetic distress does not automatically lead to helping behavior. Factors such as possession of skill and ability to help, individual responsibility, intensity of distress, etc., may influence subsequent helping behavior.

Hoffman's theory allows for various hypotheses concerning the socialization of the child (Hoffman, 1976). First, sensitivity to other's needs can be fostered by allowing the child to encounter normal distress experiences. Second, sympathetic distress and awareness of another's perspective can be enhanced by providing the child with opportunities for role taking and for giving help and responsive care to others. And, third, awareness of others can be heightened by encouraging the child to imagine himself in another's place, to think of the differences between himself and another, and to think about the inner states of the other. Hoffman further hypothesizes that an altruistic motive is encouraged when parents are loving and nurturant

towards their child, act altruistically and communicate their thoughts and feelings to the child, consider the rights and needs of the child, and communicate a concern for the moral and ethical dimensions of life both within and outside of the family.

Although not fully developed, Hoffman's theory is an attempt to incorporate aspects of the three major approaches to the socialization of prosocial behavior in children. Further, it stresses the importance of the parents as major influencing agents. Hoffman's theory is stimulating, compelling, and heuristic in nature.

Biological Theory

A biological theory, or more precisely a sociobiological theory, of altruism has been recently set forth by Wilson (1975). Wilson, a biologist at Harvard University, emphasizes the biological basis of social behavior. Wilson states that certain animals sacrifice themselves in order that close relatives who share their genes, including altruistic genes, will survive. Inasmuch as the genetic phenomenon of "kin selection" can explain altruistic acts in animal societies, altruistic acts performed by humans may also be explained by kin selection. Gould (1976), however, criticizes the extrapolation of the concept of genetic determinism to human social behavior. Humans apparently inherit a potential for learning a variety of social behaviors. Cooperative, prosocial, and altruistic behavior is adaptive and is therefore learned through social situations. To date, there is no evidence which indicates that specific genes exist which contribute significantly to altruistic behaviors.

Individually, the theories of positive social behavior outlined above make a considerable contribution to the understanding of prosocial behavior. Cognitive developmental theory places emphasis on accurate perceiving, reasoning, problem solving, and decision making. Social learning theory, underlying the majority of prosocial studies, examines overt responses and reformulates psychoanalytic concepts into learning terms. And, most recently, Hoffman's theory makes some attempt at integrating aspects of the three major theories by emphasizing empathy, role taking, and the parent-child relationship. These theories have provided a body of research which can best be examined under the rubric of factors associated with prosocial behavior. At the present time, all variables must be considered important influencing agents since, for example, according to Mussen and Eisenberg-Berg (1977, p. 39), " . . . We simply do not have the kinds of data necessary to determine whether the home environment is more important than cognitive maturity in the development of predispositions to prosocial actions."

Factors Associated with Positive Social Behavior

A survey of the literature demonstrates that the factors associated with prosocial behavior can be classified according to personal variables, cognitive functions, situational variables, and socialization experiences (Mussen & Eisenberg-Berg, 1977). These factors will be reviewed in the following sections, beginning with personal variables. Aspects of socialization are examined in greatest detail owing to their relationship to the present study.

Personal Variables

The relationship between age, sex, ordinal position, and/or personal attributes and prosocial behavior has been studied to some extent. The effects of these have generally been examined in combination with other, more global, variables, such as those of cognitive functions or situational variables. An attempt has been made in this review to parcel out and assess the contribution of personal variables to positive social behavior.

Age. In a recent study (Rheingold, Hay & West, 1976), precursors to prosocial behavior were found in children two years of age and younger. Home observations revealed children "showing a toy" and "offering a toy" to mother at approximately 9.4 months, and holding up and giving toys to others at 11.3 months. In a laboratory setting, 18-month-old infants, compared to 15-month-old infants, demonstrated a greater number and variety of altruistic behaviors.

Using boys as subjects, Green and Schneider (1974) also found an increase in positive social behavior among older age groups. Four age groups, 5-6 years, 7-8 years, 9-10 years, and 13-14 years, were measured for helping and donating behavior. Frequency of donating and one measure of helping increased with age, but another measure of helping, donating of time to help poor children, showed no correlation with age. This finding indicates that the general relationship of increase in prosocial behavior to age may vary according to the type of prosocial behavior measured. Also, the transition from "selfish" to "generous" behavior has been found to occur between fourth and fifth grade (Handlon & Gross, 1959) and second and third grade (Ugurel-Semin, 1952).

Not all studies have found a linear relationship between frequency of prosocial behavior and age. Children from kindergarten through sixth grade, left to play alone in a room, were exposed to the sound of a falling chair and the crying of a 7-year-old girl emanating from a tape recorder in an adjacent room. A curvilinear relationship was found between age and helpings with the smallest number of children entering the room to help in the kindergarten and sixth grade. When asked about the lack of helping behavior displayed, sixth-grade children responded that they were afraid of adult disapproval for entering the room without permission. A follow-up study by Staub (1971b) supported the reason given for not helping. When children were given permission to leave the room and responsibility for "taking care of things" while the experimenter was gone, helping behavior increased significantly. Responses of kindergarten children indicated that they were afraid of the distress situation and did not possess the skill or knowledge needed to help.

In summary, sharing and helping appear to increase significantly between the preschool years and the onset of adolescence. This increase may be due to the development of cognitive processes and abilities, experiences involving "how-to-help" another, exposure to altruistic adults, or a combination of these. The studies also reviewed demonstrate that variables such as situational circumstances and type of prosocial behavior required influence the frequency of behavior displayed at various ages.

Sex. The majority of studies in the realm of prosocial behavior have not shown significant sex differences in prosocial responses (Harris, 1970; Isen, Horn & Rosenhan, 1973; Rubin & Schneider, 1973; Staub, 1971b). When a positive relationship was found between sex and prosocial behavior, girls appeared to be more altruistic than boys. Midlarsky and Bryan (1972) found fourth- and fifth-grade girls to donate significantly more than boys of a similar age. Dlugokinski and Firestone (1974) found girls to place a higher value than boys on "other-centeredness" (i.e., showing kindness and altruistic behavior towards others).

Several explanations are cited in the literature for girls displaying more prosocial behaviors than boys, when they do. Findings of three studies (Grusec, 1972; Grusec & Skubiski, 1970; Friedrich & Stein, 1975) suggest that elementary-aged girls are more susceptible to verbal suggestions to act prosocially than are boys. Boys tended to need to observe an altruistic model in order to help or to share. It might be speculated that parents and other adults are more likely to preach altruism than to act altruistically. If girls are more capable of verbal learning than boys, they may be more susceptible to altruistic preachings. Further, in many cultures including our own, helpfulness and nurturance are considered more appropriate behaviors for girls than boys. Girls are therefore likely to be exposed to the same-sex parent displaying altruism, and are also more likely to be rewarded when they themselves display altruism.

Although not directly addressed in the literature, biological differences may exist which could contribute to differential prosocial

behavior in boys and girls. Boys may be biologically predisposed to behave more aggressively than girls; and girls may be biologically predisposed to behave in more nurturant ways than boys. Infrahuman research involving manipulation of hormones and the subsequent effect on brain functioning and behavior may be cited in support of this assumption.

Thus, work by Young, Goy, and Phoenix (1964) and Harris and Levine (1965) demonstrated that testosterone injected into female rats during a critical period soon after birth affected their sexual behavior as adults (i.e., the female rats performed the entire male sexual ritual, including mounting). In male rats, the absence of testosterone at the critical period caused the animals to be sensitive to estrogen and progesterone injections and, as adults, to display female sexual behavior. Results of a study by Goy (1968) demonstrated that injections of testosterone administered to pregnant rhesus monkeys caused female offspring to demonstrate behavior typical of male rhesus monkeys (i.e., rough-and-tumble play, aggression, and threatening facial expressions).

The results of these studies strongly suggest that sex hormones affect the brain, body organs, and behavior during youth and adulthood. Differences in human social behavior, both between sexes and within the same sex, may be partially explained through biological functioning. At the present time, however, information on the influence of sex hormones on the human body and on complex behavior is incomplete. Information regarding critical periods in human development is also needed (Weitz, 1977). At the same time, biological influences on behavior, including prosocial behavior, should be considered for,

according to Weitz (1977, p. 17), "If indeed, there is this indelible stamping-in of 'male' or 'female' neural circuits mediating social behavior at a very early age and throughout life, then society's sex-typing is only superimposed on these natural predispositions and is not a sovereign influence in itself."

Family size and ordinal position. Few studies have attempted to show the relationship between prosocial behavior and family size and birth order. Ugurel-Semin (1952) found that children from small families, consisting of one or two children, were more selfish than children from large families. Handlon and Gross (1959) found no relationship between sharing and sibling status. Staub (1971a,c), however, found that only children, or children with one or two siblings, demonstrated more helping behavior than children with three or more siblings. It was speculated that children from small families have more self-assurance and initiative and, therefore, are more willing to act spontaneously to help another. Staub (1971a,c) also found first-born and older siblings more likely to help than middle or younger children. From a social learning perspective it might be suggested that older children are provided more opportunities to help younger siblings, are subsequently rewarded for helping, and, therefore, increase the frequency of their behavior.

Personality characteristics. The results of several studies indicate that a relationship exists between various personality characteristics and positive social behavior. Rutherford and Mussen (1968) found nursery school boys who were generous in sharing their candy with peers to be outgoing and gregarious. Also using preschool boys as

subjects, Staub (1971a) found those willing to help a distressed child to be rated by their teachers as outgoing. The preliminary results of a longitudinal study (Block & Block, 1973), using teachers' Q-sort ratings, indicated that prosocial nursery school children are high in ego strength, self-control, and personal adjustment. Studies by Long and Lerner (1974) and Bond and Philips (1971) found similar results using elementary school children as subjects.

Yarrow and Waxler (1976) found a complex relationship between aggression and prosocial behavior in children, ages 3 to 7½. Display of aggression and being the victim of aggression were positively correlated with sharing and comforting in preschool boys who were rated low in aggression. Display of aggression was negatively correlated with these prosocial behaviors in boys rated high (falling above the mean) in aggression. Yarrow and Waxler suggested that infrequent aggression may be more situationally determined than "expressive of generalized hostility" (p. 124). The quality which enables "low-to-moderately" aggressive children to sometimes display aggression " . . . could reasonably be expected to go along with the ability to intervene on behalf of another person" (p. 124). The aggressions experienced by these children may contribute to their development of sensitivity to another's feelings and to learning about the consequences of their acts. It was stated by Yarrow and Waxler that although high aggression does not preclude display of prosocial behavior " . . . the predictability of prosocial behavior in highly aggressive children is uncertain" (p. 124). They suggested that various determinants influence the relationship between these two forms of social behavior. Results of

hormonal studies, previously reported in this paper, would strongly indicate that biological functioning might be one such determinant.

Various conclusions can be drawn in regard to personal variables as related to prosocial behavior. It would appear that prosocial behavior is displayed during the first year of life but is more pronounced among older children, when behavior changes from self-centeredness during the elementary school years. In general, no consistent significant sex differences have been found in prosocial responses, but when differences do exist girls are found to be more prosocial than boys. It has also been observed that friendly and self-confident children are more likely to display prosocial behavior than their peers.

Cognitive Variables

As stated in the previous section, various studies have reported a positive relationship between prosocial behavior and age, thus suggesting that prosocial behavior is linked to cognitive-developmental changes, particularly changes in role-taking capacity (Rosenhan, 1969) and moral judgment (Bryan & London, 1970). It has been the contention of various researchers that an increase in altruism should parallel a decline in egocentrism and parallel an increase in moral judgment.

Moral judgment and altruism. Rubin and Schneider (1973) tested 55 7-year-old children using: (1) a communication egocentrism task (Glucksberg & Krauss, 1967), (2) Lee's (1971) adaption of Kohlberg's (1964) moral judgment stories, and (3) situations eliciting donating and helping behavior. A positive relationship was found between children's altruistic behavior and both decentration and moral reasoning.

Results of a study by Emler and Rushton (1974) partially supported those of Rubin and Schneider. Subjects, 7-13 years, were assessed by tasks similar to Flavell's Role Taking Tasks (1968), and by questions to stories adapted from those used by Piaget (1932) concerned with distributive justice. Children were also given opportunities to donate to a "Save the Children Fund." Results indicated that increases in generosity with age were attributable to the development of distributive justice concepts.

In a further attempt to determine the relationship between moral judgment and moral behavior or altruism, Rushton (1975) examined immediate and delayed effects of modeling, preaching, and moral judgment on the donating behavior of 140 children aged 7 to 11 years. It was hypothesized that if moral judgment was a determinant of prosocial behavior, rather than a covariate, it would interact and affect the reception of social learning variables (i.e., a child high in moral reasoning would be more influenced by a generous model and preachings than a child low in moral reasoning). Results indicated that when age was covaried from the analysis, the relationship between level of moral judgment and donating was weak on the immediate test and below statistical significance on an 8-week retest. Although the effect of the model might blanket moral judgment level in the immediate test, the enduring judgment level would have been expected to reemerge in the delayed test. Further, no interaction was found between behavior of model, moral judgment scores, and donation score, thus suggesting that moral judgment does not have casual influences on the generosity scores of children. As a result of this study, the previous findings of Rubin

and Schneider (1973) and Emler and Rushton (1974), that moral judgment scores could predict children's generosity, were placed in question.

The discrepant results of the studies reviewed above indicate the need for research which clarifies the relationship between moral judgment and positive social behavior. As Rushton (1976) asks, will altering judgment influence behavior? Indeed, is there any direct relationship between moral judgment and altruistic behavior?

Role-taking. To date, the relationship between role taking ability and prosocial behavior is unclear. As reported above, Rubin and Schneider (1973) found a positive relationship between two measures of altruism and a measure of decentration. Krebs and Sturrup (1974), as reported by Rushton (1976), using an adaptation of Flavell's Role-Taking Task (1968), also found that role-taking ability correlated .46 with a composite altruism score and .41 and .42, respectively, with teacher ratings of children's prosocial and cooperative behavior.

These findings are at variance with those of Emler and Rushton (1974) who failed to find a relationship between role-taking ability and generosity. The discrepancy of findings indicates a need for investigating prosocial behavior as it relates to affective role taking as well as cognitive and perceptual role taking. At present, the lack of a valid, reliable measurement technique for affective role taking limits research within this domain (Mussen & Eisenberg-Berg, 1977).

Generalized cognitive development. In an attempt to determine if a general cognitive developmental variable would predict altruism, Rushton and Wiener (1975) administered a battery of tests to children, ages 7 and 11 years. The tests measured role-taking, conservation,

judgment, IQ, cognitive complexity, categorization ability, and personal construct systems. When the effects of age and IQ were parceled out, none of the measures related to behavioral measures of altruism. The authors suggested that the lack of relationship between cognitive and behavioral measures cast doubt on the hypothesis that some general change in cognitive development mediates the age change found in altruistic performance.

The results of Rushton and Wiener's study (1975) support Emler and Rushton's (1974) finding that role taking does not relate to altruism and Hansen, Goldman, and Baldwin's (1975) finding that cognitive-developmental scores on the Peabody Picture Vocabulary Test and Piagetian tasks do not predict children's responding to distress, sharing of possessions, or giving help.

In summary, some evidence exists that moral judgment, as well as cognitive role taking are antecedents of positive social behavior. The results of studies are nevertheless contradictory on this point. If they are antecedents, they appear to be specific cognitive processes relating to altruism. Other cognitive processes seem not to relate.

Situational Variables

Although individual differences in personal characteristics appear to have a great influence on one's prosocial behavior across situations and over time, they are regulated to some extent by the immediate social context, i.e., the situation or circumstances in which individuals find themselves. To date, the situational variables investigated in relation to prosocial behavior have been reinforcement, preaching, role playing, and mood. Since these variables have been investigated

in the laboratory situation, with their effects generally examined immediately, they are classified as situational variables. The following section will examine each of the factors listed above.

Reinforcement. According to learning theory, reinforcements may maintain or increase specific behavior. To increase prosocial behavior, researchers have utilized rewards in the form of material reinforcements such as candy or prizes and social reinforcements such as praise and hugs. Studies examining the influence of reinforcement on prosocial behavior are reviewed below.

In an early study of the effects of reinforcement on cooperative behavior, Fischer (1963) reinforced children between 7 and 12 years of age for simultaneously inserting a stylus into one of the three holes in an apparatus. Cooperative behavior increased with reinforcement and decreased when rewards were removed. Kindergarten and first-grade children were reinforced for donating to a peer either through a prompt ("It would be nice to help the other child") or a prompt plus praise ("Good! You're really helping him!") (Gelfand, et al., 1975). In both conditions, donating increased significantly over baseline. However, when the praise was removed on subsequent trials, subjects reverted to their initially low rates of donation. When prompts and praise were introduced, subjects regained their high rates of donation behavior.

Hartman, Gelfand, Smith, Paul, Cromer, Page, and Lebenta (1976) speculated that prosocial behavior might be increased by decreasing an aversive stimulus. After playing a game, subjects (8 and 10 years of age) were given opportunities to donate prizes to a peer. They were fined when they did not donate. Results indicated that subjects

informed of the contingency between fine and failure to donate increased donation behavior to near maximum levels and consistently continued to donate even when the fine condition was faded out, utilizing a variable ratio schedule. Uninformed children failed to increase donating behavior, but they did increase donating when given the contingency instruction. When subjects were told that fines for not donating were removed, rate of donation decreased rapidly. The results appear to support the hypothesis that aversive training combined with an explicit explanatory statement is an effective means of influencing donating or helping behavior; however, when aversive consequences are removed, some children may resume a low rate of donating behavior.

The studies reported above were carried out in laboratory settings, and only tentative generalizations can be made regarding the effects of reinforcement in natural settings. At present, no studies are available which examine directly the effects of parent or teacher reward and punishment on prosocial learning in children (Mussen & Eisenberg-Berg, 1977).

Preaching. The results of various studies suggest that age and sex may interact with preaching as a means of influencing prosocial behavior. When told to donate, older children (11 years) and younger girls (7 years) donated more than younger boys (Grusec & Skubiski, 1970; Grusec, 1972), indicating that preaching is more effective when used with older children and girls. Girls may be more socially responsible than boys (Grusec, 1972), more responsive to verbal cues than boys, or more sensitive to adult authority than boys, thus interpreting

preaching as a direct command (Grusec & Skubiski, 1970). The finding by Midlarsky and Bryan (1972) that fifth-graders exposed to either a charitable-preaching model or a charitable-performance model donated money to orphaned children supports the assumption that older children are likely to be affected by a model preaching charity.

Research results indicate that preaching may be effective in increasing positive social behavior, but not to the extent that modeling is effective. In one study (White, 1972), fourth- and fifth-grade children were exposed to a model who, having won gift certificates for playing a bowling game, either: (1) instructed the children to donate to charity the certificates they would win when playing the game, (2) donated his certificates after winning, or (3) donated certificates and provided the opportunity for the children to donate in his presence. In an immediate test situation, more children instructed to donate gave certificates than did children who either had observed a model or had observed and rehearsed. The investigators stated that children receiving instructions feared the model's disapproval if they did not contribute. When assessed a week later, donating behavior had decreased in all groups, with the greatest decline occurring in the group told to donate. Greater stability in donating across sessions was displayed by the group who observed and rehearsed, and this finding was attributed to the children's "internalizing" a standard of giving.

In another study using the bowling-game paradigm, subjects were exposed to adult models whose preachings were either congruent or incongruent with their donating actions (Bryan & Walbeck, 1970b). Results indicated that children tend to imitate a model's actions,

whether he practices charity and preaches greed, or practices greed and preaches charity. The children were also found to quote the norm preached by the model (e.g., "Those children were bad, that's why they are poor") even while behaving in the opposite way (i.e., acting generously and stating selfishness or vice versa). Results of other studies (Bryan & Walbeck, 1970a; Rushton & Owen, 1975) support the above finding that prosocial behavior is primarily influenced by behavior, and not words.

In summary, it would appear that only under some circumstances, preaching can be as effective as modeling (Midlarsky & Bryan, 1972; Rushton, 1975). According to Mussen and Eisenberg-Berg (1977) mild, low-intensity preaching probably has little effect on positive social behavior, whereas intense, direct preaching, possibly from a powerful adult and directed to older children, may greatly affect such behavior.

Role-playing. In a study designed to train preschool children in prosocial behavior, role playing, induction, and role playing with induction were used as learning experiences (Staub, 1971c). Experimenters showed pictures of and described five stressful situations, such as a child carrying a heavy bag, a child falling and hurting himself, etc. The children either role-played their probable helping actions in the situations and/or discussed their hypothetical actions. Induction included the experimenter pointing out the positive consequences of helping and elaborating on various methods of helping. Children were tested on helping another in distress and on donating candy to a poor child. Role playing was the most effective training for girls and role playing plus induction was most effective for boys. As stated

earlier in this review, girls may be more predisposed to help than boys, due to biological predisposition or socialization, and therefore the role playing alone was sufficient to produce prosocial behavior in this study.

In a study by Friedrich and Stein (1975), kindergarten children were exposed to a prosocial television show and then assigned to various treatment groups including: (1) a verbal training group, (2) a role playing group, and (3) a verbal training plus role playing group. When assessed for actual helping behavior, verbal-labeling plus role playing was effective in increasing prosocial behavior in girls, and role playing alone was effective in increasing prosocial behavior in boys.

Although a discrepancy exists between the two studies in the differential findings for boys and girls, it appears significant that role playing was effective in increasing positive social behavior for both sexes. In terms of learning theory, role playing appears to increase the child's knowledge of what actions may be taken to help another in distress and to suggest that giving to another is acceptable behavior according to adult norms.

Mood. The results of recent studies indicate that a child's mood, at the time he is required to act in a prosocial manner, influences behavior. Rosenhan, Underwood, and Moore (1974) asked children to recall either happy or sad events which had occurred in their lives. When later given an opportunity to share, children in the "positive affect" group were significantly more generous than those in the "negative affect" group. In another study (Isen, Horn & Rosenhan, 1973),

fourth-graders who believed they were successful in playing a bowling game were more generous than those who believed they had failed. Other studies (Olejnik, 1975; Barnett, 1975), however, found children less likely to share if they felt they had deserved to win their rewards. Isen et al. (1971) found "non-winning" children who failed in front of others more likely to donate rewards than "non-winning" children who failed in private. It is probable that children who fail publicly use opportunities to act in a prosocial manner as a means of repairing their social images.

Characteristics of the recipient. The results of several studies seem to indicate that children are rather selective as to whom they will direct prosocial behavior. Children more readily help and share with attractive, well-liked peers (Staub & Sherk, 1970), and popular children receive more approval, affection, tokens, and shared toys from their peers than do less popular children (Gottman, Gonso & Rasmussen, 1975).

Friendship and reciprocity also seem to affect positive social behavior. Staub and Sherk (1970) paired children to listen to a tape-recorded story. One child was given candy that he was allowed to share with the other child while listening to the story. Later, the other child was given a crayon and both children were told to make a drawing; however, the crayon needed to be shared. A positive correlation was found between the number of candies shared by the first child and the amount of time the second child allowed the crayon to be used by the first child. A strong negative relationship was found between selfishness of candy sharing and crayon sharing, but friends did not reciprocate obvious selfishness. This might indicate that among friends, benefits can be balanced over a longer period of time.

Presence of others. Unlike adults, who are prone to not help while in the presence of others (Latane & Darley, 1970), young children are more likely to help when paired with another (Staub, 1970b). Children were exposed to the distress sounds of a child emanating from an adjacent room. Of the individual children, 31.8% entered the room and/or attempted to help, compared to 61.3% of the paired children. This difference might be attributed to the feeling of security and the opportunity for communicating about the situation which accompanies being with or sharing an experience with a comrade.

In summation, the research falling under the rubric of situational variables, as reported here, was conducted within laboratory settings, with the effects measured soon after manipulation of the independent variables. Reinforcement, preaching, and role playing would seem to increase prosocial behavior in a cognitive sense by providing the child with information concerning such action (i.e., acting prosocially is a norm of society, approved of and rewarded, and there are various techniques or methods for helping another). Mood, characteristics of the person involved in the prosocial act, and presence of others would appear to influence the affective component contributing to prosocial behavior. Children seem to act prosocially if they are in a "happy" mood, if they like the person they are relating to, and if they have someone present when acting prosocially in order to feel secure. The situational variables reviewed would seem to have important implications for child rearing and parent-child interaction (e.g., the development of a positive self-concept in a child would probably produce a "happier" child and thus a "prosocial child"; or, reinforcement

by parents of prosocial acts would increase their frequency). It is interesting and stimulating to make generalizations from the laboratory to the natural home-school setting; however, as stated by Mussen and Eisenberg-Berg (1977, p. 157), " . . . the validity of inferences and generalizations derived from experimental results must be assessed by direct empirical tests."

Socialization Experiences

Parents are generally the earliest and most significant socializing agents, although teachers, other adults, and the mass media are also considered influential agents. According to Hoffman (1975), the role of the parent as a socializing agent has three major components: model, supplier of the child's affectional needs (or nurturer), and disciplinarian. Basing itself on Hoffman's statement, the present section will focus on these variables, plus that of maturity demands, under the rubric of "home environment." Also, a cursory review of "other socializing agents" will be included under socialization experiences.

Home environment: Modeling and identification. Modeling is included within the topical area of socialization because of its importance as an antecedent of prosocial behavior. Most modeling studies, however, have been carried out in the laboratory setting, and thus some caution must be taken in generalizing results of laboratory studies to socialization in the home situation. A large number of modeling studies exist in the prosocial literature (Rushton, 1975) entailing the examination of the effects of several related variables (e.g., characteristics of models and prosocial behavior). The following section

will summarize the results of several modeling studies, while elaborating on the procedure and results of those which seem to be most pertinent to socialization within the family.

The paradigm for many laboratory modeling studies is a situation in which children in an experimental group are given an opportunity to observe a model acting prosocially, often donating gifts or money to "needy children." A control group does not observe the model. When the children are subsequently given an opportunity to donate, differences in amount or frequency of donation between the groups are then assessed.

Rosenhan and White (1967) found that children, who had observed a model donate, themselves donated significantly more gift certificates to the "Trenton Orphan's Fund" than children who had not observed a model. Of children who had observed a model, furthermore, those given an opportunity to donate in the presence of the model subsequently gave more gift certificates than those children who had only observed. This result suggests that a rehearsal of charitable behavior in the presence of a model enhances the probability of autonomous giving.

Just as observing a generous model seems to increase charitable behavior in children, observing a selfish model evidently decreases charitable behavior (Harris, 1970; Midlarsky, Bryan & Brickman, 1973; Presbie & Coiteux, 1971). In addition, Harris (1970; 1971) found that not only do children imitate the specific donation behavior of models, whether generous or selfish, but they may generalize donation to a variety of situations not directly observed. Results of studies by Elliot and Vasta (1970) and Midlarsky and Bryan (1972) support the

findings of Harris. The effects of modeling seem to affect both immediate and post-donation behavior; effects were apparent from several days (Rosenhan, 1969; Midlarsky & Bryan, 1972) to several months after observation occurred (Rushton, 1975; Rice & Grusec, 1975). The results of the many studies which demonstrate in experimental settings the durable and generalizable behavior changes resulting from brief exposure to a salient model suggest that exposure to models in natural settings is a powerful socializing influence.

Characteristics of the model. Several studies have been concerned with the effects which certain characteristics of models have on prosocial behavior. The majority of studies falling within this category have dealt with the characteristics of power and nurturance, and the results of these studies have been mixed.

According to Mussen and Eisenberg-Berg (1977, p. 81), power is defined as " . . . control of resources, the capability of administering rewards and punishments to the child." In a study by Grusec (1971), 7- to 11-year old children watched either a high-power model or low-power model play a bowling game and donate winnings to charity. Subjects exposed to the high-power model donated significantly more than those exposed to the low-power model. Bryan and Walbeck (1970a), employing the bowling game paradigm, also exposed children to a high- or low-power model under both modeling and preaching conditions; however, in this study, power had no effect on children's donation behavior. Thus, it is questionable as to whether or not the degree of power a model possesses influences his effectiveness.

The variables of nurturance and modeling have been studied in reference to children's helping behavior. Sixty-four lower- and middle-class children were exposed to either a high- or low-nurturant adult who either modeled or did not model help and comfort to a crying child (Staub, 1971a). Subjects were left alone in a room and a tape of a crying child was played in an adjacent room. The most help was elicited by the modeling plus nurturance condition. In this study, nurturance was viewed, first, as enhancing children's feelings of well-being (thus leading to a willingness to help others) and, second, as decreasing the inhibitions of children to act stemming from fear of disapproval.

Yarrow, Scott, and Waxler (1973) also attempted to determine the effects of nurturance and modeling on helping behavior, but in a more naturalistic situation. Subjects, 104 white, upper-middle-class children attending a nursery school in Washington, D.C., and ranging in age from 3½- to 5½-years, were exposed to either a nurturant or non-nurturant adult. Half of the children were exposed to an adult who modeled awareness of needs, sympathy, and help that might be given to distressed animals or people represented in pictures or in dioramas. The remaining children were exposed to both the symbolic and live situations of helping children, adults, and animals in distress.

Children were tested two days, two weeks, and six months later. Regardless of the exposure to a nurturant or non-nurturant adult, all experimental groups showed a significant increase in verbalization of appropriate helping behavior in symbolic situations. However, when confronted with a realistic distress situation, children who had

interacted with a nurturant adult who modeled helping in live distress situations were more helpful, verbalized more sympathy, and were more consistent in their helping attempts than children who had interacted with a nonnurturant helpful adult. Yarrow et al. discussed the outcome of their study in terms of its usefulness in aiding parents in child rearing. According to the authors, altruism is learned best from parents who demonstrate altruism in everyday life and who direct it toward their children as well as others. Nurturance is effective when the warm, meaningful relationship is built up over time and accompanies the prosocial behavior modeled by parents.

Rutherford and Mussen (1968) designed a correlational study to determine if level of nurturance and modeling of the parents related to level of sharing in nursery school boys. After playing a game, boys were given 18 pieces of candy which they could either keep for themselves or divide among themselves and two children in the class whom they liked. Generous children (sharing 15 or more candies) portrayed their fathers as nurturant and warm and models of generosity, sympathy, and compassion in a semi-structured doll-play situation. Results of this study support those of Staub (1971a) and Yarrow et al. (1973), in which nurturance and modeling were manipulated in experimental situations. Since the generous boys in this study did not portray their mothers as nurturant, future research might be done to determine if children are more likely to share if they have identified with a nurturant same-sex parent: results of a study assessing helpfulness and consideration support such an assumption (Hoffman, 1975a).

Although a high-nurturance-modeling condition appears to produce high levels of helping and/or sharing with a friend, Grusec and Skubiski (1970) found contradictory results in a study of children's donating behavior. Third- and fifth-grade children were exposed to either a low- or high-nurturant adult who either donated his winnings, or verbalized that winnings from a bowling game should be donated to charity. Results indicated that girls placed in the high-nurturance-verbalization condition donated more than children in the other verbalization conditions, and as much as subjects in either high- or low-nurturance-performance conditions. The investigators suggested that the girls viewed the same-sex model as a female school teacher and therefore regarded the verbalization as a direct command. The explanation appears to be somewhat tenuous; however, the results do indicate the need for more research investigating the effect of modeling, preaching and/or disciplining, and nurturance on both boys and girls by a same-sex adult and, preferably, by the same-sex parent.

As stated at the outset, the results of studies investigating the characteristics of models as related to prosocial behavior have been mixed. The results of various studies demonstrate that modeling plus either power or nurturance increases prosocial behavior (Grusec, 1971; Yarrow et al., 1973; Rutherford & Mussen, 1968; Staub, 1971a). Neither the form, the degree of intensity, nor the amount and/or duration of power and nurturance needed to increase altruism, however, is known. Research in the dimensions of these highly salient characteristics of models is certainly needed.

Home environment: Nurturance. Although the results of various studies reported above indicate that the interaction of nurturance and modeling increases prosocial behavior, nurturance alone has been shown to be insufficient to produce significant increase in children's prosocial behavior (Grusec & Skubiski, 1970; Grusec, 1971; Yarrow, Scott & Waxler, 1973). In a study which assessed preadolescents' consideration for others, however, Hoffman and Saltzstein (1967) found consideration in middle-class children to be directly related to maternal, although not paternal, affection. Both maternal and paternal affection were related to lower-class boys' consideration, but not to girls'. This finding lends some support to the notion that nurturance increases level of prosocial behavior in children, although the reason for the relationship between the affection of mothers and fathers and the effects on boys versus girls according to social class is still unclear.

Feshbach (1973) and Hoffman (1975a) also found parental nurturance to be related to prosocial behavior, but once again the relationship varied according to sex of child and sex of parent. Feshbach found generosity in boys to be significantly correlated with paternal affection and with maternal child-centeredness and affectionate acceptance of the child. These relationships did not apply to girls in the study. In a recent study by Hoffman (1975a), maternal affection was positively associated with fifth-grade boys', although not girls', prosocial behavior. Altruistic behavior and paternal affection were not significantly correlated with either boys' or girls' prosocial behavior.

At present, the varying results on the effects of nurturance on prosocial behavior, according to sex of child and sex of parent, would clearly indicate a need for more research to help clarify the issues. Questions might be raised as to whether nurturance is sufficient for developing prosocial behavior, which parent is most salient in producing prosocial behavior by acting in a nurturant manner, what the relationship is between sex of child and sex of parent, and what variables appear to interrelate with nurturance in order to produce altruism in children.

Home environment: Disciplinary techniques. According to social learning theory, parents who use physical force and punishment are providing aggressive models for children to emulate. Parents who discuss inappropriate behaviors with their children in an attempt to help them understand " . . . the consequences of their acts for other people and themselves," on the other hand, are modeling consideration for others and fostering role-taking abilities in their children (Rushton, 1976, p. 909).

In an early study, Hoffman (1963) asked parents to describe interactions with their children. Scores were obtained in the areas of: (1) acceptance of the child, (2) use of consequence-oriented discipline, and (3) use of other-oriented discipline. The children were observed while interacting with their peers in a nursery school situation.

Results indicated that children who were accepted by their parents were gregarious and friendly. Other-oriented and love-withholding discipline (i.e., ignoring or isolating the child; refusing to speak to

him) was positively related to children's consideration for others, if coupled with low power assertion (i.e., little physical punishment or deprivation of material objects or privileges) on the part of the parents. It was assumed that love-withholding discipline gained its effectiveness by intensifying the child's need for approval, thus causing him to control his behavior. Other-oriented discipline seemed to induce positive and active consideration for others because of its cognitive content (i.e., the parents stress the feelings of the other child rather than their own child's bad behavior and provide an opportunity for the child to think of the effects of his behavior and feel empathy for the other child).

In a later study, Hoffman and Saltzstein (1967) investigated parental discipline techniques as they affected seventh-grade children's consideration of others. Parental discipline was classified into one of three categories: (1) power assertion, (2) love withdrawal, or (3) induction (i.e., discipline pointing out the consequences of actions on others, while showing consideration for the child). For girls, high levels of power assertion by the mother were related to low levels of consideration for others, while high levels of induction were related to high levels of consideration. Love withdrawal was found not to be related to consideration. For boys in this study, results deviated considerably. Consideration for others was positively related to power assertion and unrelated to induction. The investigators stated that the measure of consideration might not have been adequate for boys, since consideration is a more deviant value for boys than for girls. As suggested in Hoffman's earlier study,

inductive discipline was considered most effective in fostering prosocial development due to its cognitive and empathetic components. Thus, children are motivated internally to act in kind, considerate ways toward others. Hoffman and Saltzstein stated that the use of power assertion is not conducive to " . . . internalization of control because it elicits intense hostility in the child and simultaneously provides him with a model for expressing that hostility outward. . . . Furthermore, (it) makes the child's need for love less salient and functions as a obstacle to the arousal of empathy. Finally, it sensitizes the child to the punitive responses of adult authorities, thus contributing to an externally focused moral orientation" (p. 615).

In a recent study, Dlugokinski and Firestone (1974) studied altruism in 165 fifth- and eighth-grade children. It was hypothesized that: (1) the use of induction by parents is positively related to several measures of prosocial behavior, (2) children are most responsive to discipline techniques consistent with past socialization, and (3) there is a positive correlation between an increase in age of the child and the use of inductive reasoning and a negative correlation between increase in age and power assertiveness (i.e., authoritarianism) by parents. The researchers utilized four measurements: a self-vs-other centeredness scale; the Baldwin Kindness Test; a sociometric rating of kindness and consideration; and a donation situation in which either inductive appeal, power assertive appeal, or neutral appeal to give was used.

All three predictions were supported by the results of the study. At both grade levels, maternal induction was significantly related to

subjects' higher ratings on the prosocial scales. Further, children whose parents used induction were responsive to inductive appeals to give, but children whose parents used power assertive practices were responsive to power assertive appeals. Finally, inductive reasoning versus power was found more effective in increasing donations by eighth-graders, while fifth-graders responded to power-assertive appeals. In sum, induction as a form of discipline may be used by parents with increase in age of the child. Perhaps parents believe that older children are more capable of "reasoning" than younger children, or perhaps the use of power no longer is effective with older children--they ignore or escape the authoritarian parent.

In a recent study by Hoffman (1975a), it was hypothesized that altruistic behavior in children would correlate positively with victim-centered discipline techniques including those which directed the child's attention to the other person's plight and asked the child to make reparations and/or apologies to the victim. Subjects were 40 male and 40 female fifth-grade white, middle-class children. Altruistic behavior was evaluated through the answers of the subject's classmates to questions such as: "Which kids in class care about how other kids feel?" "Which kids stick up for a kid that others are making fun of?" Mothers and fathers were interviewed separately and asked to recall how they would have responded to incidents involving discipline when the children were 5 and 6 years of age. Children's altruism was correlated significantly with the use of victim-centered discipline. However, this relation was found only in respect to parents of the opposite sex (i.e., boys who scored high in altruism had mothers who used

victim-centered discipline, and girls who scored high had fathers who used such discipline). No explanation was given for this finding.

In general, the results of the studies reviewed under disciplinary techniques indicate that induction, or a form of discipline which points out the consequences of actions on others, while showing consideration for the child, is positively related to altruism in children. However, the cross-sex findings indicate the need for further research in the area. Also, when studying preschool children more accurate answers may be obtained if parents are assessed when their children are preschoolers, rather than asking parents to recall disciplinary techniques.

Home environment: Maturity demands. Although the relationship between altruistic behavior and "maturity demands" or the assignment of responsibility to children, has not been studied directly, the results of a study by Baumrind (1971) indicate that a positive relationship between the two variables exists. Nursery school children were observed in a naturalistic setting. Those children whose parents pressured or encouraged them to behave in mature ways, commensurate with their abilities, were more nurturant, helpful, and supportive of peers than children not encouraged to act responsibly. The results of a laboratory experiment conducted by Staub (1971b) also lends support to the hypothesis that responsibility influences altruism.

Limited data from ethnographic studies seem to support the contention that responsibility is one of the variables affecting prosocial behavior. Whiting and Whiting (1973) observed behaviors of children 3 and 6 years of age in six cultures--Kenya, Mexico, the Philippines,

Okinawa, India, and the United States. Behaviors categorized as altruistic were observed more frequently in children of Kenya, Mexico, and the Philippines. Extended families are common in these countries, and children are expected to care for younger siblings and cousins. Further, women and children work in the fields and the home, and children are expected to help in the subsistence of the family. In respect to our own society, it might be speculated that children living in homes where both parents are working and/or where children are given responsibility for chores and participate in family decision making will tend to be more prosocial than children not living under these circumstances.

The literature reviewed under the rubric of the influences of home environment on prosocial behavior lead to several conclusions. First, modeling studies, although conducted in laboratory situations using strange adults rather than parents as subjects, do indicate that children learn from observing others, that the information learned is long remembered, and that it generalizes across situations. Nurturance also appears to influence prosocial behavior when paired with the modeling of helping, sharing, etc. Parents who use induction as a means of guiding and disciplining children are more likely to foster altruism in children than parents who use power assertion techniques. And, the consideration of related literature indicates that parents who expect their children to assume responsibility in the functioning of the family are also indirectly encouraging them in assuming responsibility for their fellow human beings.

The studies directly assessing parental variables as related to children's prosocial behavior are few in number, when compared to the

number of studies examining other antecedents. Further, a number of these studies have used elementary-school-aged children as subjects, have asked parents to recall their behavior as displayed in the past, have limited parental variables primarily to affection and discipline, have generally only assessed maternal behavior, and have often assessed children's behavior through sociometric techniques. Future research might concentrate on preschool children who are at the age when they are strongly identifying with their parents. Children's behavior might also be observed as they play and interact with their peers and adults in natural settings. Such a procedure would seem to be a more accurate way of assessing prosocial behavior than that of asking other children to characterize their "friends." Further, other family variables, such as cohesion, independence, decision making, etc., might be examined to determine if they do indeed influence prosocial behavior.

Other socialization agents. Although parents are undoubtedly the most significant socializing agents, other people and the mass media also influence children's prosocial behavior. Very few studies have examined the effect of these variables.

Doland and Adelburg (1967) demonstrated that a peer model, who received reinforcement for sharing, increased sharing in nursery school children. Confederates were told to share animal pictures with subjects, and subsequently the confederates were highly praised for their sharing behavior. When later provided an opportunity to share, subjects increased sharing significantly over baseline. The increase was attributed to the children's being exposed to a peer model who was highly reinforced for his actions.

An examination of the effects of television on children's prosocial behavior have been carried out by Friedrich and Stein (1973). In their study, preschool children were shown one of the following programs, three times a week over a four week period: (1) a neutral film on animals, (2) Batman and Superman, which demonstrated aggressive behavior, or (3) Mister Rogers' Neighborhood, which demonstrated positive social behavior. Children's behavior was observed in a naturalistic setting before, during, and after exposure to the films. Children who observed Mister Rogers significantly increased cooperation, nurturance, and verbalization over baseline.

In a more recent study (Friedrich & Stein, 1975), nursery school children were shown four 20-minute Mister Rogers' programs over a one-week period. Observation of the film increased helping behavior in children when they were able to manipulate puppets in a situation similar to that viewed on film; but viewing was not effective in inducing subjects to help another child in a real-life situation unless subjects had additional training in verbal labelling and/or role-playing.

The studies by Friedrich and Stein lend support to the hypothesis that viewing television in a natural setting can contribute to prosocial behavior. Even the brief exposure to television programs in these studies produced durable and generalizable behavior in natural settings. Although parents are undoubtedly the most salient models of prosocial behavior, the influence of both peers and the mass media is powerful and should not be overlooked.

Conclusions

Psychoanalytic, cognitive-developmental, and social learning theories have contributed greatly to an understanding of positive social behavior in young children. Of the three major theories, social learning theory has been particularly significant. Within this framework, the importance of the adult in the role of model and reinforcing agent has been demonstrated. Also, Hoffman's theory of empathy holds great potential in explaining prosocial development.

Within the present review, the antecedents of prosocial behavior were classified as: (1) personal variables, (2) cognitive functions, (3) situational variables, or (4) socialization experiences. The literature of personal variables concentrated on age, sex, and personality characteristics. Prosocial behaviors were found more pronounced (Emler & Rushton, 1974) and more frequently in older children (Rheingold, Hay & West, 1976; Green & Schneider, 1974; Emler & Rushton, 1974). Although few significant sex differences occurred in prosocial responses, when they did girls were more prosocial than boys (Harris, 1970; Isen, Horn & Rosenhan, 1973; Dlugokinski & Firestone, 1974). Further, friendly and self-confident children also appeared to display prosocial behaviors more frequently than did their peers (Rutherford & Mussen, 1968; Staub, 1971; Yarrow & Waxler, 1976).

The positive relationship between prosocial behavior and age suggests that prosocial behavior is linked to cognitive-developmental changes in the child. Role-taking capacity and moral judgment were the cognitive variables studied most extensively in connection with prosocial behavior. Although some studies found a positive relationship

between both moral judgment and role taking, and positive social behavior, others did not (Rubin & Schneider, 1973; Rushton, 1975; Emler & Rushton, 1974). The contradiction makes it difficult to draw conclusions regarding the relationship of prosocial and cognitive development.

The effect on prosocial responses of the situational variables of reinforcement, preaching, role playing, and mood have been examined in laboratory settings. All four antecedents were shown to relate to prosocial behavior. Reinforcement, preaching, and role playing undoubtedly increase behavior by providing the child with the information that acting prosocially is a societal norm, is approved of and rewarded, and that various methods exist for acting prosocially (Grusec, 1972; Rushton, 1975; Friedrich & Stein, 1975). Results of studies examining the effects of situational variables on prosocial behavior would seem to have important implications for child rearing. Limitations, however, need to be placed on any generalizations from the laboratory to the home situation.

The effects of modeling on prosocial behavior were discussed under the area of socialization, due to modeling's importance as an antecedent of prosocial behavior. Studies showed that children imitated the specific prosocial behavior of models, generalized the learning across situations, and repeated the behavior days or weeks after exposure to a model (Harris, 1970; Midlarsky, et al., 1973; Rosenhan, 1969; Rushton, 1975). Furthermore, data indicated that the coupling of power and nurturance with modeling increases the likelihood of imitations occurring (Staub, 1971a; Grusec, 1971; Yarrow, et al., 1973).

Another socializing agent, the type of discipline used by parents, also seems to affect prosocial behavior. The results of a series of studies indicated that the use of induction, a form of discipline which points out the consequences of actions on others while showing consideration for the child, is positively correlated with demonstrations of altruism in children (Hoffman, 1963; Hoffman & Saltzstein, 1967; Dlugokinski & Firestone, 1974). In both modeling and discipline studies, interactions frequently occurred between sex of adult or parent and sex of child, although the direction of interaction was not consistent from study to study (Hoffman, 1975a; Hoffman & Saltzstein, 1967; Grusec & Skubiski, 1970). In general, the results of research falling under the rubric of socialization indicated that children will be more likely to display positive social behavior if they are exposed to parents who model altruism, who are nurturant and powerful models, and who use induction as a form of discipline (Yarrow, Scott & Waxler, 1973; Hoffman, 1975; Rushton, 1975).

The majority of research studies within the realm of children's prosocial behavior have been conducted within the past 10 years. Much is still to be explored in terms of both theory and prosocial determinants. At present, there is no comprehensive or meaningful theory of positive social behavior, and according to Mussen and Eisenberg-Berg (1977, p. 162) " . . . theories of prosocial development must await the accumulation of more substantial and reliable data." To date, few data exist on the beginning phases of prosocial development, on the motivational factors, on the influence of socializing agents outside the

home, on aspects of the family which contribute to prosocial behavior, and on the interaction of antecedent variables.

As stated within the review of literature under "Influences of the Home Environment," studies assessing parental variables as related to children's prosocial behavior are few in number. Such studies frequently have used school-age children as subjects and have limited the parental variables to nurturance and power. The prosocial behavior of preschool children needs to be examined, and examined in natural settings. Various family dimensions need to be examined and the information regarding these dimensions needs to be assessed through responses from both mothers and fathers, in two-parent families. Family dimensions might include those of decision making, open expression of feelings and thoughts, achievement orientation, independence, and others. Parents are without doubt the most important socializing agents in a young child's life; but little is known as to their effect on the development of positive social behavior in children. Without this knowledge, any attempt to educate or inform parents, and society in general, as to the techniques or means of developing prosocial behavior in children, is limited. The present study was designed to examine positive social behavior in the preschool child within a naturalistic setting, i.e., a nursery school attended four days a week. Mothers and fathers were assessed in order to determine if specified dimensions of the family environment related to the demonstration of positive social behavior.

CHAPTER III

METHOD AND PROCEDURES

Sample Selection

The sample for this study was composed of 34 3-, 4-, and 5-year-old children enrolled in the University of New Hampshire Child-Family Center and the parents of these children. Children enrolled in the school were randomly selected from applications received in response to an annual spring announcement of enrollment openings placed in two local newspapers: Foster's Daily Democrat, a paper published in Dover, New Hampshire, with a circulation of 19,000, and The Portsmouth Herald, published in Portsmouth, New Hampshire, with a circulation of 20,000. These are the two leading papers reaching the populace surrounding Durham, New Hampshire, the town where the University of New Hampshire is located. Durham is comprised of 5,800 permanent residents and approximately 10,500 university students. It is a college town located 12 miles from Portsmouth, the fourth largest city in New Hampshire, with a population of 20,000, and approximately 50 miles north of Boston, Massachusetts.

Selection of applicants is made in the following way. The name of each child applying to the Center is placed on an index card. The cards are then sorted according to the sex (male, female) and age (3 years, 4 years) of the children. Cards are drawn randomly until positions in each group (i.e., 3-year-old girls, 3-year-old boys, 4-year-old girls, 4-year-old boys) are filled.

Parents of the children enrolled in the 1978-79 preschool program were informed of the present study through a letter (Appendix A) sent in early September, 1978. The letter explained the need for research in the area of prosocial behavior and the nature of the proposed study. Consent forms both for children and for parents were included with the explanatory letter. These forms were signed and received for each participating child and parent before data collection began. Thirty-four of the thirty-five families with children enrolled in the Center agreed to participate in the study. Both letter and consent forms were approved by the University of New Hampshire Protection of Human Subjects Committee as of March 1978.

Sample Description

Child Subjects

Child subjects consisted of 17 male and 17 female children enrolled in the University of New Hampshire Child-Family Center. Subjects resided in Durham, New Hampshire or in one of the small communities or rural areas surrounding Durham. Ages of the children ranged from 37 months to 68 months. The mean age was 49.2 months. Only two children were over 5 years of age.

All subjects were Caucasian with the exception of one 3-year-old Oriental boy. Two children were from homes consisting of a natural mother and step-father. All other children resided with a natural mother and father. Three children were "only" children (8.6%). Sixty-two per cent of the subjects had one sibling, 20.6% had two siblings, and 8.8% had three siblings.

Three-year-old children attend the Center from 9:00-11:30 a.m. and 4-year-old children attend from 1:00-3:30 p.m., Monday through Thursday, beginning in September and ending in May. Data collection began in October; thus ample opportunity was provided for the children to become familiar and comfortable with the atmosphere and routine of the school.

Adult Subjects

Adult subjects consisted of 34 mothers and 34 fathers of the child subjects. Mothers' ages ranged from 26 to 43 years, with a mean age of 33 years. Fathers' ages ranged from 27 to 52 years, with a mean of 35 years. Over one-half of the mothers (52.9%) had graduated from college and over one-half of fathers (52.9%) had obtained a graduate degree. The occupation of mothers was generally listed as teacher (42.9%) or housewife (23.8%). Fathers' occupations all fell under "professional," "technical and kindred workers," or "managers, officials and proprietors," according to Duncan's Socioeconomic Index Scores (Reiss, 1961). Eight of the 34 fathers (27.6%) were college professors. No adults other than parents resided in the subjects' homes. Twenty-one families had at least one household pet.

Research Design

Procedure

Testing of children. Naturalistic observations of children were conducted through the use of audio-visual equipment. Video-tapes were made of the children as they played and interacted with others within various areas of the Child-Family Center at the University of New Hampshire. Taping took place during the months of October and

November, fall semester of 1978. An hour tape was made of each child, with 20 minutes of tape compiled at the beginning, at the middle, and at the end of the two-month taping period. Subjects were taped according to a random sequence. Four undergraduate students majoring in the Child-Family Studies option within the Department of Home Economics collected the hour of tape on each child. These students were trained in the use of equipment and taping techniques during March and April of 1978. The undergraduate students had had no prior exposure to the child subjects who were taped during data collection.

A Sony SL0-320 Betamax Videocassette Recorder was used to record the children's behavior. Sony cameras were located in the four rooms where the children engaged in nursery school activities. The cameras were equipped with Vicon VIIIPT pan-tilt controls in order that children could be recorded as they moved from room to room. A Sony ECM16 wireless microphone was worn by each subject during taping in order to record the subject's speech clearly. The microphone was small in size and did not interfere with the children's natural actions. In order to familiarize the children with the microphone prior to taping, it was worn by teachers and children during the month of September. In addition, six non-functional microphones, modeled from the wireless microphone, were constructed, and children other than the target child also wore microphones each day. This procedure reduced the tendency of a child to modify his behavior because he was the only child wearing a microphone on a particular day. The microphones were placed in the pocket of a smock worn by each of the nursery school children. The subjects were informed during September that wearing the microphone

enabled the college students to hear the children as they watched them play on the T.V. monitor. The children had opportunities to observe the monitor and listen to their peers as they played. This procedure had been carried out in past semesters. This experience had shown that the children are attentive to the T.V. for approximately two to five minutes and then ask to go back to their friends and play. This procedure controlled for any behavior change in subjects due to taping.

After the tapes of the children were compiled, coding was carried out by the four neutral observers. Although the same undergraduate students coded and taped, they coded the behavior of children they had not taped, in an effort to eliminate coder bias. Coders were trained during the Spring semester of 1978 and an inter-rater reliability of .94 (Neale & Liebert, 1973) was obtained prior to data collection.

In order to compile an entire hour of tape per child, coders worked in teams of two. The first coder observed a child for 15 seconds and then recorded for 15 seconds; the second coder observed for the 15 seconds during which the first coder recorded and recorded during the following 15 seconds, and so on. A specially designed timer indicated both visually and auditorially the 15-second intervals. If a child interacted in a prosocial way with a teacher, child, animal, or other (e.g., a doll or puppet) during the 15-second observation period, an 'X' was placed in the appropriate block on a special observation form, during the 15 seconds allotted for recording. Categories of prosocial behavior are described later in this section.

Testing of parents. During September of 1978, a trained observer (a graduate research assistant in the Department of Home Economics),

who had had no previous contact with either parents or children, phoned the parents and arranged appointments to administer the Family Environment Scale. Data collection took place in the subjects' homes during October and November of 1978. Mothers and fathers were administered the questionnaire under separate testing conditions.

Observational Setting

There are four rooms in the building where the children attended nursery school. Room 1 is a kitchen where the children eat their snack. Snack time is open; that is, the children are free to eat at any time during the session, serving themselves the snack of the day. Teachers may be at the snack table if a cooking project (e.g., making popcorn or cookies) is in progress. Such projects are a normal part of the program.

Room 2, the largest room, contains various activity areas: a woodworking table, the block area, the art table, the clay table, the water table, and the easels. Room 3, the game room, includes a math area, a science area, puzzles, books, and a phonograph with earphones. Room 4, the dramatic play room, is equipped with a toy refrigerator, stove, sink, cabinet, dresser, table and chairs, and props for dramatic play including dresses, hats, pocketbooks, dolls, fireman's hats, slickers, etc. A puppet area is also housed in this room.

Upon arriving at school each day, the children participated in a brief group time. Outdoor play occurred at the end of each day's session. All taping took place during free time, approximately 9:15-10:45 a.m. and 1:15-2:45 p.m. Children were free during these time intervals to play at whatever activity they chose and for the length

of time that they chose. The possibility existed that certain areas or activities in the classrooms elicited higher frequencies of positive social behavior from children than did others. In order to insure that all the children were aware of the activities and areas available, and that they themselves made the decision as to where they would play, the teacher listed the day's play activities and areas available to the children prior to the free play period. A child's final rating on positive social behavior might have been a reflection of the activities in which he engaged. In any case, the decision to participate in activities varying in opportunities to act prosocially was the child's.

Instruments

Demographic information. Information regarding person and family variables was gathered from each parent subject. The variables included the following: (1) age of child, (2) sex of child, (3) age of parent, (4) race or nationality, (5) educational level of parent, (6) occupation of parent, (7) marital status, (8) family size, (9) number of siblings of child, (10) age of siblings, (11) birth order of children, (12) other adults living in the home and their relationship, and (13) whether or not the family had a household pet.

Observational record form. The observational record form utilized in this study was based on a number of components of prosocial behavior identified by Friedrich, Stein, and Kipnis (1974), Hansen, Goldman, and Baldwin (1975), and Charlesworth and Hartup (1965). Several components, e.g., cooperation and responsibility, were modified from the original definitions. The modifications and definitions were based on suggestions made by Stein (Note 1) and Goldman (Note 2) during personal

communications with the researchers and by findings from a pilot study conducted at the Child-Family Center in the Spring semester of 1978. The categories listed on the form were devised to facilitate the observation of a child's positive behavior toward peers, adults, animals, and inanimate objects such as dolls or puppets. The behavioral items classified as prosocial behavior and their definitions are as follows:

Cooperation - S interacts with one or more children in such a way that behavior is directed toward a common goal; this may involve taking turns, making something together, exchanging materials, or participating in some organized game (Friedrich, Stein & Kipnis, 1974)

Teacher-led cooperation - S cooperates as defined above except that the activity is led or directed by an adult (Friedrich, Stein & Kipnis, 1974)

Helping - S assists another by giving information, aiding in another's task, or offering an object not previously in his possession (Hansen, Goldman & Baldwin, 1975)

Sharing - S gives in response to a request to give, or spontaneously gives to another, part or all of something he has in his possession or offers a turn (Hansen, Goldman & Baldwin, 1975)

Finding or suggesting alternatives - S diverts or attempts to divert another from an aggressive or stressful act to a toy or another activity (Friedrich, Stein & Kipnis, 1974)

Showing concern - S shows concern for other who is in distress (crying, hurt); behavior consists of an intent and consistent stare or a move into close physical proximity to the other

(Hansen, Goldman & Baldwin, 1975; Wareing & Strayer, 1976; Friedrich, Stein & Kipnis, 1974)

Comfort - S shows concern for another in distress by touching or soothing other, by offering an object or by making a statement (Wareing & Strayer, 1976; Friedrich, Stein & Kipnis, 1974)

Accepting responsibility - S carries out activities such as picking up toys, cleaning-up, distributing juice or food, or doing other adult-like activities, without direct supervision. This action may occur spontaneously or when adult asks child to do something and child continues the activity after the adult leaves (Friedrich, Stein & Kipnis, 1974)

Offering physical affection and acceptance - S hugs, kisses, holds hands, pats, or places arm around another (Charlesworth & Hartup, 1965)

Offering praise and stating positive feelings - S compliments someone else's work, says "thank you," describes feelings with the use of an explicit feeling word, "I like you" (Charlesworth & Hartup, 1965)

Inviting another to play or join an activity - S asks another to play (Charlesworth & Hartup, 1965)

Giving protection - S verbally or physically defends another (Charlesworth & Hartup, 1965)

Greeting another warmly - S greets other says "Hi" (Charlesworth & Hartup, 1965)

The Observational Record Form (Appendix B) is divided into sections corresponding to the number of observations made on each child

within the one-hour time period. An 'X' was placed in the block on the observation form which corresponded to the behavior observed and the 15-second time interval in which the behavior occurred.

Parent questionnaire. The Family Environment Scale (FES) was utilized to measure parental behavior patterns. The FES assesses the social environments of families along three salient dimensions (Moos, Insel & Humphrey, 1974): (1) the measurement and description of the interpersonal relationships among family members, (2) the directions of personal growth emphasized within the family, and (3) the basic organizational structure of the family. According to Moos (1976) the FES significantly discriminates among families, is sensitive to parent-child differences, is related to family size, is related to family drinking problems, and discriminates between psychiatrically disturbed and matched "normal" families.

The FES assesses family social environments as the family members themselves report they perceive them. It consists of 90 true-false items that fall into ten subscales: (1) cohesion, (2) expressiveness, (3) conflict, (4) independence, (5) achievement orientation, (6) intellectual-cultural orientation, (7) active-recreational orientation, (8) moral-religious emphasis, (9) organization, and (10) control.

The first three subscales--cohesion, expressiveness, and conflict --assess the relationship dimension. They determine the extent to which there is open expression within the family, and the degree to which conflict is characteristic of the family.

The second five subscales--independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation,

moral-religious emphasis--measure the personal growth dimensions. These subscales examine the emphasis within the family on various developmental processes that may be fostered by family living. Independence measures the emphasis on autonomy and family members acting on their own. Achievement orientation examines the stress placed on academic and competitive concerns. Intellectual-cultural orientation reflects the emphasis placed on a variety of intellectual and cultural activities, while active-recreational emphasis determines participation in recreation and sports. The moral-religious dimension is the degree to which the family discusses and emphasizes ethical and religious issues and values.

The subscales of organization and control measure the system maintenance dimension. These subscales obtain information on the structure and organization within the family and the amount of control family members attempt to exert on one another.

The ten subscales have demonstrated adequate internal consistency (ranging from .64 to .79), have shown eight week test-retest reliabilities ranging from .68 to .86, and have had subscale intercorrelations of approximately .20, indicating that they measure distinct, though somewhat related, aspects of family social environment (Moos & Moos, 1976). Logical, or face validity, of the Family Environment Scale was achieved by logical definition and selection of the test items comprising the three dimensions of the scale (Moos, 1978).

In a study of alcoholism by Moos, Bromet, Tsu and Moos (1977) some evidence was provided for the construct validity of the FES. The relationship between items of the FES and reported levels of activity in

various dimensions of family life was examined with a sample of 122 families. Correlation coefficients ranged from .33 to .52 between FES subindices and levels of family participation. For example, the correlation between active recreational orientation and participation in sports activities was .38, between intellectual-cultural orientation and participation in cultural activities .33, and between moral-religious emphasis and religious or church attendance .52.

Support for predictive validity for the FES was provided by Scoresby and Christensen (1976). The FES differentiated between families receiving treatment in a university clinic and nonclinic families selected from those with a child in a university preschool facility. The clinic families scored significantly lower on the FES cohesion, expressiveness and organization subscales, and significantly higher on the conflict subscale. Additional support for predictive validity was found by Moos (Moos, Insel & Humphrey, 1974) in a comparison of 42 clinic and 42 matched (on family size and composition) normal families. Clinic families obtained significantly lower scores on cohesion, intellectual-cultural orientation, and active-recreational orientation. They obtained significantly higher scores on conflict and control.

Data Analysis

A prosocial behavior index was computed for each child by combining the frequencies from the various categories of observed behavior on the Observational Record Form (Appendix B). Individual responses to the Family Environment Scale were recorded on IBM cards. Separate scores were generated for each of three dimensions of the Family Environment Scale: relationship, personal growth, and system maintenance.

Demographic and general information were coded and punched on standard IBM cards. It will be recalled that this information included: age, educational level, race or nationality, occupation, marital status, number and ages of children in family, number and relation of adults living with family, and household pet. Most of the demographic and general information is reported as percentages and frequencies, as needed to describe the sample or to support statistical inferences. The six hypotheses were tested by multiple regression equations. The dependent measure in each regression equation was children's prosocial behavior. The independent measures in each analysis included the age and sex of the preschool child and the mother's or father's scores on one of the three dimensions of the Family Environment Scale. Sex (male versus female) was treated as a categorical variable. The Statistical Package for the Social Sciences (SPSS) was used for the data analysis. One multiple regression analysis using controlled entry was conducted for each of the six hypotheses (3 utilizing the dimension scores of mothers and 3 for the scores of fathers). Age of the child, recorded in months, was entered first into each analysis, followed by sex of child as control factors. These variables were followed by either mothers' or fathers' scores on one dimension of the Family Environment Scale. This model was repeated for each hypothesis.

The confirmation of each hypothesis was based upon: (1) the significance of the overall adjusted R^2 of the equation, (2) the F value of the respective family environment variable, and (3) the direction of the relationship between the family environment variable and the dependent variable as shown by the standardized Beta.

CHAPTER IV

ANALYSIS OF DATA

This chapter reports findings from the testing of the six hypotheses of the study. Information will also be included which relates to the discussion presented in Chapter V.

The predictor variables derived from the Family Environment Scale (Moos & Moos, 1976) were as follows: mothers' relationship; fathers' relationship; mothers' personal growth; fathers' personal growth; mothers' system maintenance; and, fathers' system maintenance. Means and standard deviations were calculated for the six predictor variables listed and for the dependent variables, children's demonstrated prosocial behavior (see Table 1).

Calculations of means and standard deviations for each of the dimensions of family environment showed the least variation on mothers' relationship (SD = 2.68) and fathers' relationship (SD = 2.95). System maintenance scores for both mothers and fathers showed less variation (SD = 3.18, mothers'; SD = 3.03, fathers') than did mothers' and fathers' personal growth scores (SD = 4.25, mothers'; SD = 4.10, fathers'). The mean of the children's prosocial behavioral index was 46.38 with a standard deviation of 25.36.

Mean and standard deviations were also generated for each of the 13 measures of observed prosocial behavior (Table 2). These scores were combined to form the prosocial behavior index (see Appendix B, Observational Record Form). Cooperation ($\overline{X}$ = 16.35; SD = 12.37),

Table 1

Mean and Standard Deviations for Predictor Variables and Children's Prosocial Behavior Index

Variable	N	Range	Mean	SD
Mothers' Relationship	34	13-22	17.59	2.68
Fathers' Relationship	34	10-24	16.32	2.95
Mothers' Personal Growth	34	20-39	30.18	4.25
Fathers' Personal Growth	34	18-38	29.23	4.10
Mothers' System Maintenance	34	4-18	10.41	3.18
Fathers' System Maintenance	34	4-17	10.53	3.03
Children's Demonstrated Prosocial Behavior	34	7-123	46.38	25.36

Table 2

Mean and Standard Deviations of 13

Measures of Prosocial Behavior

Prosocial Behavior	N	Range	Mean	SD
Cooperation	34	0-44	16.35	12.37
Teacher-Led Cooperation	34	0-59	10.03	16.02
Helping	34	0-19	3.23	4.00
Sharing	34	0-9	2.32	2.42
Suggests Alternatives	34	0-1	.12	.33
Shows Concern	34	0-5	.38	.99
Comforts	34	0-1	.03	.17
Responsibility	34	0-26	10.62	7.27
Shows Affection	34	0-9	1.35	1.99
Offers Praise	34	0-3	.65	.77
Invites to Play	34	0-3	.53	.90
Gives Protection	34	0-1	.06	.34
Greets Warmly	34	0-6	.70	1.27

teacher-led cooperation ($\overline{X}$ = 10.03; SD = 16.02), and responsibility ($\overline{X}$ = 10.62; SD = 7.27) were the forms of prosocial behavior most likely to be demonstrated. Helping and sharing followed ($\overline{X}$ = 3.23, SD = 4.00; $\overline{X}$ = 2.32, SD = 2.42) with other forms of positive social behavior being less likely to occur. Inter-rater reliability for prosocial behavior observations was .92 (Neale & Liebert, 1973).

Zero-order Correlations of Predictor Variables and Dependent Variable

Pearson product-moment correlations were determined as between family dimension variables and children's demonstrated prosocial behavior (see Table 3). The family dimension variables were derived from the Family Environment Scale and included: mothers' relationship, fathers' relationship, mothers' personal growth, fathers' personal growth, mothers' system maintenance, and fathers' system maintenance.

A high negative correlation (r = -.44, n = 34, p = <.005) occurred between children's prosocial behavior and the father's relationship. This significant correlation indicated that an increase in father's relationship (comprised of cohesion, expressiveness, and conflict subscales) corresponded to a decrease in children's prosocial behavior. No other significant correlations were found between children's prosocial behavior and the other family dimension variables.

Prediction of Children's Prosocial Behavior

Multiple regression analysis was used to examine the predictor variables, derived from the Family Environment Scale, and their relationship to children's positive social behavior. The predictor variables were mothers' relationship, fathers' relationship, mothers'

Table 3

Pearson Correlation Table of Predictor Variables with Children's Prosocial Behavior Index

Predictor Variables (family environment)	Prosocial Behavior Index
Relationship Dimension	
Mothers' Scores	.09
Fathers' Scores	-.44*
Personal Growth Dimension	
Mothers' Scores	.09
Fathers' Scores	.03
System Maintenance Dimension	
Mothers' Scores	-.17
Fathers' Scores	-.27

Note. N = 34.

*p <.005.

personal growth, fathers' personal growth, mothers' system maintenance, and fathers' system maintenance. For each analysis, the sex of child followed age of child as control factors. Table 4 presents the results of the six multiple regression equations.

The results derived from the multiple regression analyses indicated that there was no support for the following six hypotheses of the study:

H_1 There will be a relationship between mothers' scores on the Relationship Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_2 There will be a relationship between fathers' scores on the Relationship Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_3 There will be a relationship between mothers' scores on the Personal Growth Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_4 There will be a relationship between fathers' scores on the Personal Growth Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_5 There will be a relationship between mothers' scores on the System Maintenance Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

H_6 There will be a relationship between fathers' scores on the System Maintenance Dimension of the Family Environment Scale and children's demonstrated prosocial behavior.

Table 4

Multiple Regressions of the Predictor Variables of Children's Prosocial Behavior

Predictor Variables (family environment)	$\hat{R}^2$	F	B (standardized)
Mothers' Relationship Dimension	-.06	.36	.09
Fathers' Relationship Dimension	.13	2.71	-.43
Mothers' Personal Growth Dimension	-.05	.44	.12
Fathers' Personal Growth Dimension	-.06	.31	.04
Mothers' System Maintenance Dimension	-.04	.57	-.16
Fathers' System Maintenance Dimension	.08	1.97	-.40

Note. N = 34.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The purpose of the present study was to identify family variables which might influence the development of children's prosocial behavior. The sample for the study consisted of 17 male and 17 female children enrolled in the University of New Hampshire Child-Family Center and the parents of these children. Ages of the children ranged from 37 months to 68 months. A one hour video-tape of each child was made as he/she played with others at the Child-Family Center. The tapes were coded for aspects of positive social behavior. Parents were administered the Family Environment Scale (Moos, Insel & Humphrey, 1974).

Multivariant procedures were used to clarify the importance to children's prosocial behavior of three family environment dimensions. Multiple regression was the statistical procedure utilized. One multiple regression analysis using controlled entry was conducted for each of the six hypotheses of the study. Age of the child was entered first into each analysis followed by sex of child as control factors. These variables were followed by either mothers' or fathers' scores on the following three dimensions of the Family Environment Scale: 1) relationship, 2) personal growth, and 3) system maintenance. No significant relationships were found between the family environment predictor variables and children's positive social behavior. A discussion of findings follows.

Discussion of Results

Family Environment Dimensions

Relationship dimension. The relationship dimension assessed the extent to which mothers and fathers felt family members were: 1) committed, helpful, and supportive of each other, 2) able to openly express feelings and behavior, and 3) engaged in conflictive interactions. A number of theories and research studies seem to indicate that positive social behavior is fostered in home environments where warmth, helpfulness, support, and open expression of feelings exist.

Hoffman (1976) has suggested that altruistic behavior is more frequent in children whose parents are loving and nurturant toward their children, act altrustically and communicate their thoughts and feelings to their children, and consider the rights and needs of the children. Hoffman's hypotheses are supported by social learning theory which stresses the importance of modeling and reinforcement. If children observe nurturant, helpful, and supportive parents and are reinforced for demonstrating helping, cooperation, and other positive social behavior, the demonstration of such behavior by children will subsequently increase. In contrast, children who observe parental aggression and conflict are more likely to demonstrate anti-social behavior. Various research studies have found prosocial behavior more frequently displayed in children who are exposed to warm, sympathetic, and nurturing adult models than in children exposed to nonnurturant adults (Yarrow, et al., 1973; Rutherford & Mussen, 1968; Staub, 1971a). Parental affection and acceptance have also been shown to relate to children's level of prosocial behavior, although results varied

according to sex of parent and to sex of child (Hoffman & Saltzstein, 1967; Feshbach, 1973; Hoffman, 1975a). When relationships did occur, results indicated that as parental affection and acceptance increased, children's prosocial behavior also increased. Research results have also indicated that inductive discipline, i.e., discipline stressing the expression of feelings and the consequences of behavior, is positively related to altruism in children (Hoffman & Saltzstein, 1967; Dlugokinski & Firestone, 1974).

The present study found no relationship between mothers' and fathers' relationship dimension scores and children's demonstrated positive social behavior. As indicated above, a number of studies have found a relationship between variables that would appear similar to those of cohesion, expression of feelings, and conflict, and children's prosocial behavior. The findings of this study, therefore, do not lend support to the above findings nor do they clarify the cross-sex findings in several studies (Hoffman & Saltzstein, 1967; Feshbach, 1973; Hoffman, 1975a). Although similarity in definition existed between variables, those in the present study may be measuring different family dimensions, possibly dimensions which do not influence positive social behavior. The fact that no relationship was found may be due to several reasons, including conceptual errors.

Personal growth dimension. The personal growth dimension assessed mothers' and fathers' perception of various developmental processes which might be fostered by family living. The processes included those of autonomy or independence, achievement, intelligence and culture, activity and recreation, and morality and religion. Literature

corresponding to the personal growth dimension includes that of children's positive social behavior as it relates to responsibility, cognitive functioning, and moral judgment.

Hoffman's (1976) empathic theory allows for various hypotheses regarding the socialization of the child which appear to relate to a family environment which stresses independence. Hoffman states that prosocial behavior may be fostered if parents: 1) allow children to encounter normal distress situations, 2) provide children with opportunities for giving help and care to others, and 3) encourage children to take the role of another and think through the differences between themselves and another. It would appear that families stressing independence (i.e., assertiveness, self-sufficiency, and decision making) would be more likely to provide children with opportunities to experience the processes suggested by Hoffman than families who encourage dependency in their children.

Staub (1971b) found children given an opportunity to take responsibility for a situation demonstrated more prosocial behavior than children not permitted this self-responsibility. Baumrind (1971) found nursery school children whose parents encouraged them to behave in mature ways commensurate with their abilities, to be more nurturant, helpful, and supportive of their peers than children not encouraged to act responsibly.

Results of studies measuring the relationship between level of cognitive development and children's prosocial behavior are contradictory. It has been suggested that various cognitive processes which may be influenced by the family environment, such as perception, reasoning,

role taking, and problem solving, are all critical to one's ability to act prosocially (Mussen & Eisenberg-Berg, 1977); however, results of various research studies (Rushton & Wiener, 1975; Emler & Rushton, 1974; Hansen, Goldman & Baldwin, 1975) suggest that such cognitive processes do not relate to the demonstration of prosocial behavior. According to cognitive developmental theory, the preschool-age child is in the preoperational stage of development. Thus, he is unable to accurately perceive situations and take the role of another. It has also been suggested that the altruistic motive is influenced when parents communicate to their children a concern for the moral and ethical dimensions of life both within and outside of the family (Hoffman, 1976). Contradictory results have nevertheless been found in studies measuring the relationship between positive social behavior and moral judgment in children (Rubin & Schneider, 1973; Emler & Rushton, 1974; Rushton, 1975). At present, there is a question as to whether or not a relationship between morality and the demonstration of positive social behavior does exist.

No relationship was found between mothers' and fathers' personal growth dimension scores and children's positive social behavior in the present study. Some support might thus be given to studies which indicate that there is no relationship between cognitive and moral judgment variables and the demonstration of positive social behavior. The findings lend no support to studies demonstrating a relationship between responsibility and positive social behavior. A reanalysis of the data, examining the relationship between each of the subscales of the personal-growth dimension and positive social behavior, may provide

additional information regarding family variables which influence pro-social development.

System maintenance dimension. The system maintenance dimension assessed mothers' and fathers' perception of the structure or organization within the family and the degree of control exerted by family members vis-a-vis each other. The relationship between system maintenance factors and positive social behavior has been studied infrequently. One exception appears to be a study by Hoffman and Saltzstein (1967), which examined the relationship between parental discipline techniques and children's consideration for others. For girls, power assertive discipline by mothers related to low levels of consideration for others; a positive relationship between power assertion and consideration was found for boys.

In the present study, no significant results were found between the system maintenance dimension of either mothers or fathers and children's positive social behavior. Thus, no clarification was provided for the contradictory results found in Hoffman and Saltzstein's study. The family environment variable of control measured in the present study, however, may have been assessing a dimension of the family environment that differed at some level from that of power assertion.

Conceptual Implications

The lack of significant findings in the present study suggests that various conceptual errors may have been made in the design of the study. As is evident in the preceding section, several dimensions of the Family Environment Scale appear to assess variables which past

research has indicated relate to children's positive social behavior; however, the family environment variables in the present study may have differed significantly from those of past studies. Further, the family dimension variables assessed through the Moos' scale may not be variables which influence the development of positive social behavior in young children.

The question might also be raised as to whether the parent's perception of the family environment is also the child's perception of the home situation. For example, parents may perceive the family environment as one high in conflict, but the child may not perceive the environment as such. Not perceiving conflict may occur because of the child's own egocentrism or because his parents may hide their own personal conflict situation. Thus the parents' perception of the family would not relate to the child's perception and, subsequently, to the child's behavior.

A lack of significant findings may also be related to the validity of the Observational Record Form. Although the various forms of prosocial behavior used in the scale were demonstrated by the subjects, many were demonstrated at relatively low frequencies. At the same time, considerable variability in scores was observed. The prosocial forms may be adult manifestations of positive social behavior rather than children's. Children may demonstrate more subtle forms of positive social behavior or precursors to positive social behavior which were not recorded in the present study.

Conclusions

Based on the results of the present study, the following conclusions may be drawn:

1. The extent to which the parents of 3-, 4-, and 5-year-old children perceive the home as having an environment in which family members help and support one another and have open expression of feelings does not relate to the demonstration of positive social behavior in their children.
2. The extent to which the parents of 3-, 4-, and 5-year old children perceive the home as emphasizing order, rules, procedures, and control of family members does not relate to the display of positive social behavior in their children.
3. The important role of the parent as a model and reinforcer of helping, sharing, and nurturance on the development of prosocial behavior as purported by learning theory is not supported by the results of the present study.
4. No support is given to the various aspects of socialization, such as the encouragement of responsibility in children to help others and the use of discipline which allows children to think of themselves in another's place, as outlined in Hoffman's theory of empathy.

Recommendations for Future Research

Based upon the procedures, findings and conclusions of the present study, the following recommendations for further research are suggested:

1. Future studies should increase the sample size and length of observation time in order to reduce the standard error of the mean.

2. Additional research should be conducted to determine which family and parental variables influence positive social development in young children. Wholistic and in-depth home observations of families might be more reliable approaches to the measurement of family variables than is the administration of questionnaires.
3. Future studies should plan for the observation of children in more standardized situations within naturalistic settings. This procedure would more adequately control for variability in children's prosocial scores. The standardization of situations would be a more accurate control of the possibility of some children being observed in activity areas offering few opportunities to act prosocially.
4. Further analysis is needed to determine if additional behaviors demonstrated by preschool children also fall under the rubric of prosocial behavior.
5. Future research should continue to utilize audio-visual equipment to observe children in naturalistic settings. Such procedures allow for unobtrusive data collection and in-depth analysis of children's behavior as they play with other children and adults.

Caution should be exerted in the generalizations of the findings from the present study to other groups due to the small sample size and the nature of the sample.

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UNIVERSITY OF NEW HAMPSHIRE
DURHAM, NEW HAMPSHIRE 03824

College of Life Sciences and Agriculture
Department of Home Economics
Pettee Hall

Date:

During this Fall semester, the Child and Family Studies faculty within the Home Economics Department will be conducting a research project at the UNH Child and Family Center. The purpose of this letter is to inform you of the nature of the research, of the need for such research, and to ask for your cooperation in the project.

Prior to the mid-1960's, professionals in the area of Child Development who were interested in the social and emotional development of children investigated negative aspects of social behavior, including aggression, jealousy, rivalry, fear, etc. Perhaps because of the social happenings of the sixties, emphasizing concern for others and the rights of all people, researchers began to study positive aspects of people's behavior, such as giving to others, helping another in distress, and sharing of one's possessions. Professionals interested in the behavior and development of children became interested in exploring the various aspects of positive social behavior, in determining to what extent and in what situations children display positive social behavior, and in understanding ways to develop positive social attitudes in young children.

Within the past decade, positive social behavior has been studied primarily in elementary-school-aged children, and under contrived, often unrealistic, laboratory situations. At present, little information is known as to whether or not preschool children display helping, sharing and concern for others in their everyday play with their peers and how frequently they display these behaviors. Further, there is a paucity of information regarding family attitudes, relationships, values, etc., which may affect children's tendency to act prosocially.

In the study which we will be conducting at the Center, video-tapes will be made of the children as they play naturally in the preschool with their teachers and friends. The tapes will be similar to those you have seen, or will be seeing, in individual parent conferences. However, these tapes will be reviewed to determine what forms of positive social behavior the children display and how often they display prosocial behavior. Further we will be asking you, the parents, to meet with a researcher in your own home. During the home session, we will be asking each of you, separately, to complete questionnaires concerning behavior you display and feelings you have as an individual, as a parent and as a member of your family. It is important to remember that there are no "right or wrong" answers to the questions and that measures will be taken to guarantee the privacy of your responses. The information collected from the video-tapes and the questionnaires will be analyzed to determine if certain behavior and feelings of parents relate to prosocial behavior in children.

As a faculty, we are enthusiastic about the research endeavor. We believe that there is a need in our society for people to better understand and care for one another. Your cooperation in this study will aid us in beginning to determine why people are kind, helpful and considerate of one another. Upon completion of the study, we look forward to sharing with you the findings from the research.

Thank you for your time and consideration.

Sincerely,

Mary W. Temke
Director
Child & Family Center

Please sign the enclosed forms if you are willing to participate in the project and return them in the self-addressed envelope.

APPENDIX B

OBSERVATIONAL RECORD FORM
Department of Home Economics
University of New Hampshire

Name of Child _____

(coders only)

Family number _____ Date of tape _____

Age of child _____ Date of rating _____

Total Score _____ Raters _____

	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	TOTAL
1. Cooperation																																
2. Teacher-led cooperation																																
3. Helping																																
4. Sharing																																
5. Suggests alternatives																																
6. Shows concern																																
7. Comforts																																
8. Accepts responsibility																																
9. Offers physical affection																																
10. Offers praise, states positive feelings																																
11. Invites to play																																
12. Gives protection																																
13. Greets warmly																																

TOTAL