RELATIONSHIP BETWEEN PROSOCIAL MORAL REASONING, PROSOCIAL BEHAVIOR, FAMILY FUNCTIONING AND SOCIAL MATURITY IN PRE-PRIMARY SCHOOL CHILDREN

by

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C O N T E N T S

APPENDICES

A C K N O W L E D G E M E N T S

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L I S T O F T A B L E S

(CHAPTER SEVEN)

A B S T R A C T

The purpose of this correlation study was to attempt to account for differences in pre-schoolers moral reasoning about altruistic conflicts on the basis of healthier types of family functioning and greater degrees of social maturity: to show whether these differences are reflected in an increase in prosocial behavior.

Thirty-eight pre-school boys and girls responded to four simple moral stories about helping and sharing. (Moral R.). All responses of the children were coded by the researcher and an independent coder.

Assessment of the extent of the children's own naturally occurring prosocial behavior was by the completion of a Likert-type rating scale

(Pros. B.R.) by the teachers of the school. It was hypothesized that the use of more mature levels of moral reasoning would account for more prosocial behavior. Results confirmed the hypothesis.

Family functioning was measured by the Family Assessment Device questionnaire (F.A.D.) and individually completed by all the mothers and fathers. The hypothesis that healthier family functioning patterns would reflect use of higher levels of moral reasoning was partially supported.

The measurement of the extent of social maturity of each child was by means of a semi-structured interview with the mothers and utilizing the Vineland Social Maturity Scale (V.S.M.). It was hypothesized that healthier patterns of family functioning would foster greater social maturity. Results obtained did not support this hypothesis.

Other hypotheses were; (a) that greater social maturity would account for the use of more mature levels of moral reasoning: this hypothesis was confirmed, (b) that greater social maturity would be related to increased prosocial behavior: results confirmed this hypothesis, (c) that increased prosocial behavior would be reflected by healthier patterns of family functioning: results did not support this hypothesis.

As measurement was of an ordinal nature Spearman's non-parametric rank correlation was utilized.

A subsidiary study was conducted in which the children's moral reasoning was examined by way of their dominant modal response. None of the pre-schoolers used the Kohlberg stage 1 authority and punishment as their modal response. Much hedonistic and needs-oriented reasoning was used. Spearman's rank correlation was used to examine relationships between the categories of moral reasoning. The use of hedonistic reasoning was negatively related to both needs orientation and stereotypic reasoning. Other relationships did not reach statistical significance.

P R E F A C E

Need for Research and Context of the Study

It has long been recognised that persons' levels of moral reasoning vary considerably. The majority of persons' moral reasoning is governed by hedonism and yet with development they develop into well socialized adults capable of prosocial behavior. Prosocial behavior (altruism) is considered by many to be the peak of moral development (Kay 197C).

The terms "prosocial" and "altruism" are often interchanged, sometimes by the same researchers. Both terms will be utilized depending upon the terminology of the researchers under review.

The major methodological differences in research in moral reasoning is reflected by those followers of either Piaget or Kohlberg.

Eisenberg (1982) has differentiated between the Kohlberg prohibition-oriented moral reasoning and prosocial moral reasoning where the choice of the individual to behave prosocially is a personal choice unaffected by subsuming institutionalized laws, rules and norms.

As the development of prosocial moral reasoning requires that a compromise be made between one's own desires and concern for others it was decided to look at types of family functioning (child-rearing), but from a general systems theory approach. At the pre-primary age patterns of child-rearing are thought to be especially significant in the early development of prosocial moral reasoning.

Researchers examining family functioning from this approach have focussed on one dimension, for example, communication (Satir 1967) and it was felt that other factors such as parental responsiveness, involvement etc. are important factors in this age group.

The decision was taken to look at the occurrence of prosocial action but in the pre-primary school situation. As awareness of need in others is largely based on the understanding of the particular situation, the school environment was selected, as it would be equally familiar to all the subjects of this study.

Maturational development of the child and socialization processes both in the family system and the outer social system influence the child towards the goal of optimal social competence. Aspects of socialization include development in areas such as self-help, communication and social relations and it was felt that there was a need to examine this area in its relationship (if any) with prosocial behavior. Although prosocial behavior increased with increasing age (Ugurel-Semin 1952: Handlon and Gross 1959) it would be naive not to anticipate appropriate changes in social competence. Young children have less social competence than older children and they have fewer resources on which to call. Consequently prosocial actions are expected to be less frequent.

It should be noted that the pre-school children with whom this study is concerned are white, middle-class, English-speaking (home-language) South Africans. The literature survey, the study itself, including the results and discussions must therefore be considered in the light of this context if seeking to generalize from this research.

PLAN OF THESIS

The four variables to be considered in this paper are

a) Moral Reasoning

b) Family functioning (child-rearing patterns)

c) Prosocial behavior

d) Social Maturity

Independent measures are obtained of these variables which can be compared to see if any significant relationships emerge between them.

C H A P T E R O N E

PROSOCIAL BEHAVIOR

Behavior of a prosocial or altruistic nature has been described by Budd (1956) as the "forgotten aspect of social thought" (Blasi 1980). Emphasis in psychological literature has been on negative behaviors, for example; aggression, dishonesty and cheating. Few studies until the 1970's have looked at the development of positive behaviors, for example; helping, sharing, co-operation. (See reviews Krebs 1970: Rushton 1976). Humans are highly social beings and generally develop emotional relationships before one year of age (Bowlby 1969). The quality of human relationships and interactions is therefore of vital importance to society and to the individual. Unfortunately because man appears to act in a prosocial manner does not mean that he is prosocial.

1.1 Definitions of "prosocial" and altruism"

A lack of consensus marks the definition of the words "prosocial" and "altruism". Many researchers inter-change the words. Hornstein (1976) defines altruism as:

> "....helping or prosocial behavior towards others, in the absence of external rewards or personal benefits".

The term "prosocial" is increasingly being used for behavior which is seemingly intentional and voluntary. Bar-Tal, Raviv and Leiser (1980) propose that only:

> "....a moral act that aims to benefit another, that is performed voluntarily, that functions as an end in itself with no expectation of external rewards can be defined as altruistic behavior".

Gelfand and Hartman (Eisenburg 1982) from a social learning base doubt the usefulness of definitions of altruism that exclude possible external reinforcement because they focus primarily on overt behavior. It appears that the term "prosocial behavior" as an antitheses of negative behavior is

a wider classification and subsumes specific behavior such as sharing, helping and co-operation. Schwartz (1977) states that altruism implies purposes based in the person's value system.

The question of the definition of altruism and its related question of whether altruism exists, have posed problems. Those researchers concerned with altruism as a personality characteristic have attemped to define principles which underly the attribution of altruism.

Behavioral researchers have generally avoided the definitional issue by using operational definitions, and ignoring the intention behind apparently "other-oriented" acts, although it is the intention behind an action rather than the consequences that determines the moral value of that action. Researchers generally then have assumed that behavior that appears to be altruistic, is altruistic and they concern themselves with its determinant (Krebs 1970).

The terms "altruism" and "prosocial" will both be utilised depending upon the terminology of the researchers under review.

1.2 Major theoretical interpretations

1.2.1 Evolutionary theory

Theoretical issues in evolutionary theory concerning the basis of altruism are complex. Theorists have agreed that man's initial environment was hostile and survival rates were far greater if individuals banded together in groups than facing the environment alone. The greater survival value of group life over solitary life led to the proposal that natural selection favoured altruism (pro-social behavior) rather than the individual acting alone. Arguments against this proposed the superiority of the individual on the basis of his being the unit of reproduction (Williams 1966). Trivers (1971) proposed a "reciprocal altruism" theory. It accounts for altruism between relatives and non-relatives. (altruism = behavior which reduces the current fitness of the initiator while increasing that of the recipient). Helping behavior between non-relatives occurs because of the possibility of reciprocation at a later date.

Leak and Christopher (1982) propose that empathy may have evolved as a mechanism in a reciprocal altruism system. Because of the benefits of reciprocity, persons who help others in need should indeed be favoured by natural

selection; and

> "empathy may provide the emotional impetus which underlies numerous altruistic acts". (p.8c).

It is important to note that evolutionists do not regard helping behavior or maternal sacrifice to one's own relatives or kin as altruistic as this action benefits one's own genetic line (natural selection). These genetic explanations are primarily concerned with the way in which particular dispositions for prosocial behavior may benefit the genetic line. They do not directly describe the processes through which anothers' need may lead to helping behavior. The focus is on the consequences rather than on the purposes of behavior.

Darwin 1871 (Aronfreed 1968: 140) states that altruism has an instinctive base in man. Others, (Hebb and Thompson 1968) proposed that there may be an innate disposition towards the acquisition of altruistic behavior at the highest phylogenetic level. Campbell (1965) proposed strong unlearnt altruistic tendencies in terms of interperson similarity. This was further supported by Krebs (1975), who concluded that inter-person similarity may both extend and limit the role taking in altruistic

behavior. It may differentiate on a highly selective we-they basis and discriminate accordingly, leading to bigotry, scape-goating and discrimination.

1.2.2 Psychoanalytic theory

There is difficulty in the explanation of altruistic behavior and other adaptive undefensive behaviors. However unresolved guilt because of absence of the affected party has been proposed (Maddi 1970) and displacement of guilt therefore occurs through altruistic action.

The concept of identification has received much attention from researchers.

Firstly; identification with the aggressor where the child is treated punitively by the parents; the child tries to avoid further conflict by identifying with the parents; that is he takes on the characteristics and outlook of the parent.

Secondly; developmental or anaclitic identification, which is based on the child's anxiety over the loss of parental love. The child emulates the parent in order to minimize

the anxiety and reassure himself of ongoing love (Hoffman 1963). In a study of 5-year old boys Sears (1953) found that manipulation of the father doll in a structured doll-play situation related positively to the father's warmth and affection towards the boy.

It is noted however that there is no empirical support that identification is an overall unitary process. Certain moral attributes may be adopted that are visible and do not require complex cognitive functions. (Hoffman 1977).

1.2.3 Social learning theory

This theory is an offshoot of modern behaviorism which stresses the importance of observation, immitative behavior, learning and reinforcement. There are many studies on the effect of positive social reinforcement on learning and performance of children. Yarrow, Scott and Waxler (1973): Aronfreed and Pascal (1965): Hartup and Coates (1967): Bandura and McDonald (1963): Bandura, Ross and Ross (1961). Few studies examine the socialization of conduct providing evidence relevant to the mechanisms of internalization. In terms of this approach, critics question that behavior which sacrifices rewards can be consistent with the principle of reinforcements (Krebs 1970).

Aronfreed and Pascal (1965) conducted a study (Aronfreed 1968), in which 6 - 8 year old girls were exposed to expressions of joy, (conditioned stimulus) and hugged simultaneously (unconditioned stimulus). They therefore experienced positive affect, (unconditioned response). The subjects sacrificed candy-bars in order to obtain the expression of joy and therefore also elicited reinforcing positive affect. This task placed the child in a position of testing her empathic and altruistic dispositions. It is presumed therefore that internal representation ".....is enough to reinforce altruism". (Krebs 1965). However, it is also "presumed" that intermittent pairings of the "joy", "hugging" and "candy sharing" are necessary to avoid extinction. Criticisms abound. Staub 1979 (Siegel 1982: 34) discussed the "as if" assumption - as if altruistic behavior can be studied via short exposures of single responses of behavior. Others criticize the artificiality of the laboratory situation and the limitation of generalisability which is dependent upon further observation in dissimilar situation to indicate internalisation.

In recent years many studies have investigated altruistic or prosocial behavior. The majority of these studies have concentrated on the eliciting of specific segments of behavior rather than the learning of such behavior and

concentrating on activities, such as donating and sharing. (Bryan and London 1970). Other measures include experimental measures of helping behavior between the experimenter and subject; for example; dropping or knocking something off a desk: consideration for others in competitive gain situations: naturalistic observations of helping and sharing behavior, and teacher-peer socio-metric techniques. (Rushton 1976).

Children may not always help because of altruistic motives. It is the intention behind the act, that indicates its moral value, therefore the motivational basis for altruistic behavior may differ. It may be normative; that is, the child shares a toy because it is expected of him: it may be reciprocal; the child shares a toy, hoping that his friend may return the favour at a later date: it may be principled; sharing now represents the "ought" of the internalization of morality: it may be justice; sharing is effected by the child in order to restore a specific equitable situation. As stated earlier researchers generally then have assumed that behavior that appears to be altruistic, is altruistic. Most behavioral research (Krebs 1970), therefore has investigated altruism in terms of very narrow operational definitions. For example; the amount donated to needy children: (Midlarsky and Bryan 1967) the number of seals or pennies given to a partner (Hanlon and Gross

1958). The intentions behind the actions have generally not been considered although it is the intention behind an action rather than the consequences, that determines the moral values of that action. The occurence of a particular behavior does not neccessarily confirm internalization of the altruistic disposition. Imitation of a behavior does not dissociate the child's own interest and intentions from those of others. It is an action that arises from the inequality of others and not a purposive act of co-operation.

Krebs (1970) proposed the significance of two criteria indicating moral internalization. Firstly, generalizability, - that the specific behavior should generalize to different situations from which it was initially elicited; and secondly, durability, -that the behavior should be enduring over time.

Rutherford and Mussen (1968) tested the hypothesis that generosity was part of a pattern of prosocial moral characteristics including kindness and co-operation in middle-class 4-year old boys. A generosity score for candy-sharing was calculated and the sample was divided into non-generous children and highly generous children. Teachers rated the generous group of children as more generous, more gregarious, less competitive, less quarrelsome, more

kind, and less aggressive than the non-generous children. A behavioral measure of competitiveness based on a car-racing game showed less competitiveness amongst the generous group than the non-generous group. This also confirms that self-concern and competition lead to a decrease in prosocial behavior. These results were also supported in a study by Rushton and Wiener (1975) who examined patterns of generality of prosocial behavior of 7-year old children. The measures of altruism were donating tokens to a charity, sharing candy with a friend, and a competitive car-racing game (Rushton 1976) Further confirmation resulted from a study of 5-year old children by Rubin and Schneider (1973). The behavioral measures were donations of candy to a charity and helping behavior of work done for a friend. Other studies, for example, Green and Schneider (1974) failed to find significant relationships between three measures of altruism of boys aged five to fourteen. The behavioral measures were candy-sharing with other children, picking up dropped items for the experimenter, and volunteering free time to work with needy children. Research by Mussen, Rutherford, Harris and Keasey, (1970) in 12-year old boys revealed no support for generality of prosocial behavior.

Studies examining the effects of the consequences of behaving prosocially on subsequent prosocial behavior yield mixed results. Fischer (1963) found that verbalization of positive social reinforcement ("that's good, that's nice") produced less marble sharing than giving material reinforcement (candy) to 4-year old children. As the experimenter was present throughout the study, experimenter approval may have confounded these results. Midlarsky and Bryan (1967) showed that children reinforced for one altruistic behavior (lever-pressing in the presence of the experimenter) generalized this prosocial behavior to an anonymous candy-donating situation. Experimenter effects again may have influenced the results.

Aronfreed (1968), viewing moral behavior from a learning theory perspective interprets the occurence of these habits and the extent to which generality takes place as a function of drive reduction, of schedules of reinforcement and of the response contingencies under which they were learnt. (Blasi 1980)

Aronfreed (1968) proposes that reinforcement and the development of a self-reward mechanism are necessary for the learning of altruistic responses.

The self-administered rewards may often be effective and are assumed to have greater incentive value than those material rewards which are sacrificed on behalf of another. With reference to the study of Aronfreed and Pascal (1965) in which 6 - 8 year old girls were exposed to expressions of joy, (conditioned stimulus) and hugged simultaneously (unconditioned stimulus), and therefore experienced positive affect, (Unconditioned response): They sacrificed candybars in order to obtain the expressions of joy and at the same time elicited a reinforcing positive affect. This was further supported by researchers Rosenhan, Underwood and Moore 1974.

They reported that children who were asked to think about happy events, gave more than the control group subjects. However Brian and London (1970), state that there is no evidence that positive affect (experimenter pleasure of approval) is sufficient by itself to elicit helping behaviors. This was further confirmed by Midlarsky and Bryan (1967) in 6 - 10 year old children who did <u>not</u> find that hugging the child increased generosity of amount of money donated to needy children.

1.2.3a Behavioral models

Researchers Lenrow (1965); Rosenhan and White (1967); and Rosenhan (1969) indicate the importance of behavioral examples in eliciting altruistic behavior. Hartup and Coates (1967) found that nursery school children imitate an altruistic peer, depending on the frequency of the subjects' reinforcement by peers and the models rewardingness to the particular subject. The extent to which subjects modeled a rewarding or non-rewarding peer was dependent on the subjects history of reinforcements from the peer group. (Bryan and London 1970). This has also been confirmed by Rosenhan and White (1967) where 9 and 10- year old children were exposed to an adult model The altruistic measure was the frequency of donating to orphans. The study by Grusec and Skubiski (1970) in which 9 and 11-year old children in the condition of "nurturance" gave more marbles to poor children than those who were not exposed to the condition of "nurturance" also confirms these results. Other studies show that a model behavior can also determine the direction, as well as the amount of altruistic behavior. Harris (1970) showed that 10 and 11-year old children shared with the model; donated to charity; or retained their winnings, dependent upon the model

behavior.

Critics of laboratory modeling experiments suggest that "experimneter-bias" and "demand characteristics" may account for the findings equally as well as formal theories of modeling.

In response to the above criticisms researchers endeavored to show that laboratory findings are generalizable to the real world. Yarrow, Scott and Waxler (1973) provided pre-school children with "nurturant" and "non-nurturant" adult caretakers for several weeks who modeled different types of sympathetic helping behavior. (for example: real-life sympathy and helping behavior, and sympathy statements to illustrations of distress). The results showed that those children who had "nurturant" caretakers modeled helping and sympathy in both the symbolic and the live distress situations. Friedrich and Stein (1975) showing four twenty-minute prosocial "Mr Rogers Neighborhood" films to kindergarten children alone, and in combination with special training, led to an increase in real-life altruism. Those children who were exposed only to the television film did not show any increase in altruism. Further confirmation was indicated by Rushton (1975) in that the modeled behavior, whether

generous or selfish, was durable over a two-month retest situation; it was also generalized to a different experimenter in a different locale.

1.2.4 Cognitive developmental theory

The chief proponents are Kohlberg and Piaget who view moral internalization as occuring in a series of fixed qualitatively distinct stages. Each stage builds upon the preceeding one and is therefore more comprehensive giving rise to higher levels of moral reasoning.

Piaget's two basic stages are heteronomy and autonomy. In the heteronomous stage the child feels an obligation to comply with rules because they are "laws of the gods" and therefore sacred and unalterable. This stage is characterized by moral realism, unilateral respect, and egocentric thought (assumption that others view events in a similar manner to the child himself). With increasing cognitive development, maturation, and social experience, the processes of egocentricism and realism (confusing subjective with objective experiences; for example: perceiving dreams as external events) and other restraints of this stage lessen.

The autonomous stage is characterized by freedom from feelings of obligations and inferiority, and also dependency upon adults. There is a development of the concept of the self as differentiated from others. (Siegel 1982). In describing these processes of transition Piaget minimizes the role of the parent and emphasizes peer interaction. Piaget (1932) proposes a position of "functional unity". It implies that children pass through stages of cognitive, social and moral developement at approximately the same time. There is no tendency for them to pass through any of these stages of these areas either sooner or later. (Krebs and Gilmore 1982).

Kohlberg's theory describes the underlying structure of the content of moral judgement development throughout adolescence and adulthood by a sequence of six cognitively based stages. It is a more refined, comprehensive, and logically consistent framework. (Hoffman 1977).

The framework comprises six stages which are ordered into three levels of moral orientation.

Level 1, the preconventional level, includes stage 1 which is a punishment-obedience orientation in which

rules are followed in order to avoid punishment: and stage 2 which is an instrumental hedonistic orientation. Acts are defined as right which satisfy the self and occasionally others. Other persons' interests are only recognised in the service of the self. Level 11 the conventional level includes stage 3 and 4. A stage three orientation, is the good-boy morality of living up to a stereotype of "good" behavior. Stage four, is a law and order orientation, involving the preservation of institutions for the purpose of maintaining a social order. Level 111 is the post conventional level, and includes stages 5 and 6: they can be roughly equated with the rationally defined concept of fairness involving the acknowledgement of the rights of individuals over the rules or laws of institutions. (Siegel 1982).

1.2.4a Roletaking

Kohlberg stresses the processes of cognitive disequilibrium and role-taking. The ability to take another persons perspective is especially significant from the pre-conventional to the conventional morality (stage 2 to stage 3). According to Kohlberg (1969) children develop independent cognitive structures for coping with physical, social and moral

issues. Cognitive development is a necessary but not sufficient condition for moral development.

Role-playing is an important technique of socialization. Dimensions upon which moral development is stimulated within the family rest primarily upon role-taking opportunities.

The significance of role-taking in the development of children's social understanding is also confirmed by Hudson, Forman and Brion-Meisos (1982), and Hartup (1970) who suggests that it is a prerequisite for prosocial behavior.

The importance of role-playing in altruism is supported by Rosenhan and White (1967) and White (1972). They observed that the opportunity to role-play specific behavior led to more imitation, than observation only of the model (Rushton 1976) Staub (1971B) examined the effects of role-playing on different altruistic behaviors: for example; calling for help, direct intervention and verbal consolation, in children up to 6 -years of age. Results showed a positive relationship between role-playing and generalized altruistic behavior: for example; sharing candy and picking up dropped objects. The effects of the role playing also lasted

over 7 days. The alternating behavior was helper and helpee. Results of this study also supported the two criteria of internalization (Krebs 1970); of durability over time and generalizability over situations.

Bar-Tal, Raviv and Sharabani (1980), Bar-Tel, Amiran and Leiser (1980), suggest that altruism be considered as a developmental achievement in terms of role-taking and development of morality. Kurdek (see review 1978) concluded that although role-taking and behavior are related, findings are inconsistent and no clear pattern can be detected. However Ambron and Irwin (1975) suggest that role-taking has been often considered as a unitary concept and not as a summary variable with two or three dimensions. They researched three dimensions of role-taking (perceptual, cognitive, and affective) and two dimensions of moral judgment (intentionallity and restitution) and findings indicated a significant positive correlation.

Kurdek and Rodgin (1975) note that the terms "affective role-taking" and "empathy" are often interchanged. Their description focusses on the ability to recognize the feeling of the other person in a situational context. This subsumes a certain

cognitive level of awareness for role-taking and affective reaction to others' feelings in order to give meaning to the experienced emotion, and resultant action. (Schacter and Singer 1962).

A study by Ianotti (1978) into altruism in 6 and 9-year old children hypothesized that role- taking is a prerequisite for empathy leading to the practice of altruistic behavior. This study also illustrated the interdependence of social, affect and cognitive aspects of role- taking. However the data did not support the main hypothesis. There was a negative correlation between empathy and role-taking in the 6-year olds. However altruism in the 6-year olds did increase as a result of training and there was a signigicant positive relationship between role-taking and altruism in the 9-year olds.

Empathy or affective role-taking as a motive for altruism is supported by many theorists; (Hoffman 1963: 1970: Hoffman and Saltzstein 1967). Hoffman (1975) furthermore supports the independence of cognitive and affective role- taking.

1.2.5 Attribution theory

In recent years increasing interest is focussing on the role of attribution processes in the development of moral behavior. Researchers (Walters and Grusec 1977: Dix and Grusec 1983) have proposed that social inference processes lead to internalization and that children's prosocial behavior is rationalized by their belief in their own personal traits or values. Parents who practise induction and reason with their children tend to have children who have high scores on measures of internalization (see review Hoffman 1970). Those parents who make strong demands but use consistent reasoning usually obtain compliance (Baumrind 1973).

Miller, Brickman and Bolen (1975) manipulated the attribute of tidyness. A group of children were told that they were neat and tidy; a second group were told that they ought to be neat and tidy and the third group acted as the control. It was found that the attribution of the trait of tidyness to group 1 was more effective than telling the children the "ought-ness" of group 2 and also the control group 3 (Grusec and Redler 1980). This was further supported by a study of Grusec, Kuczinsky, Simutis and Rushton (1978). The attribution of the trait of enjoyment,

through donation, proved to be more effective than that of a norm of social approval in the donating of winnings to a charity. Other interpretations however, may conclude that cognitive assonance was a significant factor in the modification of the child's self concept, in line with another's perception. Criticism of positive reinforcement has also been proposed.

It appears that the two major streams of research are the social learning and the cognitive-developmental. It is proposed that

> "...if the social learning theorists move further into cognitive processes and the cognitive-developmentalists become more specific about their cognitive contracts, then useful intergration might be possible". (Rushton 1976: 911)

1.3 Age and sex differences

1.3.1 Age differences

Few studies have compared the incidence of altruism in children of different ages on the same task.

Differences in the reward value of altruistic measures for example; pennies, toys and candies may significantly distort results. However evidence of a developmental increase in altruistic behavior is confirmed by the following studies.

Ugurel-Semin (1952) found an increase in generosity of children sharing nuts. There was an increase from 33% at ages 4 - 6 to 69% at ages 6 - 7 of boys and girls. This was further confirmed in a study by Handlon and Gross (1959). The number of pennies or seals given to a partner increased in 4 - 6 year old boys and girls from 28% to a 42% increase at the 9 - 10 year old age group. Few nursery school children give and if so it is generally very little. With increasing age instances and amount of prosocial behavior tend to increase (Krebs 1970). Midlarsky and Brian (1967) and Aronfreed and Pascal (1968) in studies of model-generosity did not find an age increase. Krebs (1970) proposed that models may influence younger children more than older children (demand characteristics of the laboratory situation) and results are distorted.

1.3.2 Sex differences

There are no clear sex differences for children in

prosocial behavior. (Ruben and Schneider 1973; Yarrow, Scott and Waxler 1973). In nursery school children no studies found sex differences in altruism. (Fischer 1963; Hartup and Keller 1960). The popular notion that girls are more altruistic than boys was not supported consistently (Krebs 1970). However Rushton (1976) states that when sex differences <u>are</u> found they tend to favour girls.

C H A P T E R T W O

CHILD REARING PATTERNS

In recent years there has been a growing interest in the relationship between parent and child.

> "Home influences probably outweigh the effect of all other environmental impacts combined in determining the fundamental organization of children's behavior" (Thompson 1962: 621).

Parents vary widely in their behavior, attitudes and personality, thus

accounting for variable and unpredictable child-rearing practices. The family is the primary socializing agent in the life of the young child and parental behavior patterns are instrumental in the childs development.

Parental attitudes and child-rearing practices are generally investigated by the use of questionnaires, interviews, paper and pencil tests and direct observation of parents. (Traditionally usually the mother). Behavioral data of the children are usually obtained through ratings, interviews with the children, and different experimental and projective techniques.

Champney (1941), one of the early investigators into parent-child relations proposed that parent-child behaviors are too complex to be handled by purely objective measures; for example, questionnaires. Observation in the home by a trained observer is required to assess the inter-related and dynamic influences of parental behavior on children's psychological growth and adjustment. From specific parental behavior evolve fairly constant patterns which differentiate one home from another. These parental patterns present learning situations to the child, and social habits are developed which generalize into habit systems and constitute his personality.

2.1 The Fels Longitudinal Study

Champney (1941) developed a series of 30 rating scales for evaluating the major variables involved in parent behavior. From these scales evolved the Fels Parent Behavior Rating Scale giving rise to the Fels Longitudinal Study. Balwin, Kalhorn and Breeze (1945) are the chief researchers associated with this study which is the largest single body of research in the field of parent-child relationships. The data was obtained by means of a home visit which yielded a qualitative description of the parents and the home, quantitative description which was obtained by a battery of rating scales.

A detailed analysis of the variables in the Fels study yielded three major patterns of parent behavior. They were, democracy in the home, acceptance of the child and indulgence. These syndromes were divided into high, medium and low, and homes were then classified accordingly.

Democracy relates to the measures of control employed by the parents. Measures of control may be of a cohesive and restrictive nature or lax, ineffectual and inconsistent. Baldwin considers that acceptance determines the degree of democracy because it depends upon the recognition of others as individuals.

Acceptance of the child is considered to be the underlying characteristic of successful child-parent relationships. The variables in this syndrome (acceptance-rejection) child-centredness of the home, approval, affectionateness and rapport all deal with different aspects of the child-parent relationships. Parents rating low on this syndrome tend to ignore or neglect their children. This particular syndrome (of special significance in this study) is significant in the formation of conscience. (Sears, Maccoby and Levin 1957: 383).

Indulgence. The variables in this syndrome are babying and solicitousness. Parents who are rated high are characterised by overidentification with the child. The parent "lives again" in the child and the relationship shows a complete lack of objectivity. The child may be valued only in terms of the parent's need systems.

Throughout child-rearing studies these three dimensions reappear as being significant to a greater or lesser degree. In a later paper Baldwin (1954) supplemented the effects of democracy and concluded that democracy is the most important of the three syndromes. Firstly, in the Fels study those children who are raised democratically are rated higher on behavior of an active socially outgoing nature, both of a friendly and hostile domineering kind. Secondly, these children occupy favourite

positions in their groups. They are unlikely to have inferior status and their aggression and domination is succesful. Finally, these children are generally rated high on activities which demand intellectual curiosity, originality and constructiveness. Baldwin (1954) notes further that the effect of indulgence is generally the opposite to democracy, but that specific effects are the presence of physical apprehension and lack of skill in muscle activities.

Democratic parents encourage exploration and experimentation and therefore the child tends to develop active participation in nursery school activities. Democracy therefore is not a variable operating solely in the home when parents and child are together. It is a general subsuming characteristic responsible for the shaping of the child's general pattern of behavior. Sears et al (1957) note that those children who attend nursery school show improvement in intelligence tests from the 1st to the 2nd semester. Furthermore, the Fels study under the variable "acceleration", also found democratic homes to be acceleratory in two different ways. Firstly, there is a high premium on intellect and attainment and secondly, they gave the child responsibility for his own actions, expecting "mature" behavior from him.

2.1.1 Criticisms of the Fels

Baldwin (1948) has acknowledged that as the parents constituted an intellectual culture and were not a random sample they were not representative of the population. The parents would place great value in rationality and intellectuality. Generalizations from this sample require caution.

Sewell, Mussen and Harris (1955) accept the value of the Fels in terms of the broadly defined parent-child relationships; for example, democracy and acceptance. But they note that there is little attempt to study empirically the relationships between specific child-rearing practices and personality development. They question that a particular underlying attitude such as acceptance or rejection is a pointer of responsible, favourable, or unfavourable child-rearing practice.

2.2 Parental Attitude Research Instrument

The Parental Attitude Research Instrument (P.A.R.I.) which was devised by Schaefer and Bell (1958) also assumed that the

presence of an underlying attitude influenced a great variety of parental behaviors. A factor analysis of their 23 five item homogenous scales revealed three major factors; authoritarian control, hostility-rejection, and a democratic attitude towards child-rearing. These findings partially supported those of the Fels group, in that, warmth and methods of control are two of the most significant in the development of the personality of the child. Criticism of the P.A.R.I. has focused on its susceptibility to response bias, social desirability and acquiscence set. Becker and Krug (1985) noted that meaningful results are found only when comparisons are made within an upper middle-class group.

2.3 Socialization of Controls

Much of the parent-child relationship is devoted to socialization. It is the transmission of normative beliefs, values, proscriptions and prohibitions of the surrounding culture. Those aspects of socialization which appear to exert the greatest strain on parent-child relations are those wherein the child must practice self-denial or modify some particularly strongly motivated behavior; for example, sharing toys, the postponing of a reward and inhibiting tendencies towards aggression.

Research findings looking at the effect of child rearing practices on moral development have focussed on parental discipline. Stayton, Hogan and Ainsworth (1971) proposed that socialization is facilitated by genetic pre-dispositions and therefore the child will internalize and acquire self-restraint without specific training techniques. They found positive correlations between the level of maternal acceptance and sensitivity to the infant's need during the first year but not with the specific training techniques either by verbal association or physical means (Martin 1975).

The positive correlation between maternal sensitivity and acceptance was further confirmed by studies of Yarrow, Campbell and Burton (1968) in which a positive correlation was found between maternal warmth and sons' conscience. There were no relationships between these variables for the daughters. (The measures of conscience were ratings based on mother-reported reactions to transgressions), under conditions of high maternal warmth.

Studies of internalization generally look at two dimensions of parental discipline. They are "love-oriented" (Sears et al 1957) and "induction" (Aronfreed 1961).

The love-oriented techniques include positive methods such as the use of praise and reasoning (induction) and negative methods which threaten love-withdrawal resulting in isolation of the child from the parent. The affective relationship is used as a basis for the parental withdrawal of love because of the child's naughtiness. The child may feel badly because of the emphasis on the emotional effects of his naughtiness upon others; that is the parents or others may be hurt or upset. It implies a certain reliance on existing patterns of empathy already possessed by the child (Martin 1975). There is also a cognitive component. The parent describes and explains the expected behavior giving reasons why he must be obeyed.

Induction is the process whereby parents explain and reason with the child for the need to change his behavior. They point out the implications and possible harmful consequences to others. This "other-orientation" is most conducive to moral development. Hoffman (1970) states that the two major purposes of induction are, firstly, to tell the child that he was responsible, and secondly, to arouse the child's empathy by distress to a possible experience of the child in similar circumstances when he may have been the victim. Other-oriented techniques focus the child's attention on the harm done to others. At the same time the capacity for empathy is integrated with the knowledge of the

consequences of his own behavior.

Baumrind (1967) found that nursery school children who were rated high on measures of self-control had parents who used induction in a generally nurturant and non-punitive atmosphere, rewarded self-controlling behavior and were firm in the enforcement of rules. In Kohlberg's theory the dimensions on which the family stimulates moral development are the creation of role-taking opportunities. Studies (Hoffman and Saltzstein 1967) support this statement. Those children whose parents use mainly induction in disciplining their children show more internalizations in reactions to transgressions than those parents who use sensitization (power-assertive) methods. A study by Nevius (1977) looking at parental discipline patterns and level of moral judgment yielded inconclusive results. The overall evaluations of the data indicated an association but not a relationship of higher levels of moral judgment with inductive discipline.

The use of induction leads to cognitive structuring. Early parent-child relations that are warm, approving and accepting facilitate the childs natural tendencies towards empathy and the cognitive component of role-taking.

A significant positive relationship was established between an infants IQ (although it does not relate highly to later measures

of IQ) and internalized controls as well as the maternal dimensions of sensitivity and acceptance. A reciprocal relationship is seen to exist here. The natural tendencies and capacities of the infant for internalization reinforce the mother's sensitivity and acceptance. At the same time the mother's sensitivity and acceptance facilitates the development of internalized controls (Bell 1968). Love withdrawal techniques interfere with communication and consequently the child and parent are separated. If cognitive content is excluded then the child is unable to generalize from this situation to others. He does not benefit from it as a learning process. If cognitive content is included anxiety arousal may produce disfunctional communication (Satir 1967) and therefore the message is not understood. Studies by Sears et al (1957) confirm that love withdrawal is often expressed as a lack of responsiveness rather than by a direct or positive reaction. It may take the form of simply ignoring the child; refusing to look into the direction of the child; threatening to go away; or isolating the child until he has stopped being naughty. These measures tell the child that warmth and love are conditional on his good behavior. They suggest that love withdrawal promotes a dependency by the child to the parent and contributes to moral development, but there is no evidence to support this.

Love-oriented approaches to discipline are associated with high

expressions of guilt (accepting responsibility for a transgression and for making reparation). It is a moral belief that one should resist transgressions because they are wrong rather than because of external consequences. It is supported by Zahn-Waxler, Yarrow and King (1979) who note that the most effective child rearing patterns were those wherein mothers used affective, sometimes moralistic inductive techniques.

The use of parental power assertion without explanation will arouse anger. At the same time it provides a model for continuous use of power assertive techniques; for example, slapping, loss of temper. Moral orientation of the child is then based on fear of external detection and punishment. The child's empathy which is an important motivational resource, is therefore not stimulated (Hoffman 1977).

Most research on parent-child interaction has looked at the question of effects of parents on children (Bell 1968). He considers the unidirectional focus on parent-child interaction to be a manifestation of a broader social philosophy; one which has emphasised parents and educational systems as determinants of human development. Thus at this stage of the review it seems plausable to visualize a parent as a vehicle for the transmission of culture and the child as the object in the entire socialization process.

2.3.1 Social Class Differences

According to Sears et al (1957) working-class mothers were more punitive and restrictive; they were less permissive and exerted more pressure with regard to aggression and dependence. But the authors have difficulty coming to definite conclusions concerning social class distinctions. For example; they see restricted living conditions as a possible cause of less show of affection. The working class mother withdraws into herself. Pringle also (1980) notes social class differences. Working-class parents favour a more authoritarian style of child-rearing. Verbalising is used more often to threaten and enforce obedience rather than to make the child understand the rationale behind the behavior. The child then develops in a quiet well-behaved conformist manner. He becomes passive and dependent.

2.4 The Sears Maccoby and Levin (1957) Longitudinal Study

They examined child rearing practices for the first 5 years of a child's life. Data which was collected from 379 mothers has provided a large informative study on child-rearing practices of different socio-economic groups. Material was obtained from semi-structured interviews with the mother. Sears et al (1957)

define child-rearing practices as all the interactions between parents and their children. The parents expressions, their attitudes, values, and beliefs are included as well as caretaking and training behaviors.

A factor analysis of their 44 scales revealed 7 underlying traits (the use of "trait" in preference to 'dimension' is the semantic preference of the authors). They were permissiveness-strictness, general family adjustment, warmth of mother-child relationship, aggressiveness and punitiveness, perception of husband, and orientation towards childs' physical wellbeing. There is a significant increase in "dimensions" compared to the Fels study.

2.4.1 Dimensions of Significance

Warmth

Sears et al (1957) report warmth to be the most pervasive quality. A warm mother spends more time with her child rewarding and guiding him. The child who is secure in her love becomes more susceptible to control. He has more to lose and gain and therefore he is more motivated to do her bidding. It is also proposed that children of warm mothers mature more rapidly in their social behavior than those of cold mothers. A significant positive relationship was found

between warmth and amount of conscience. Parental warmth may contribute to the development of internalization. A warm or accepting parent is a reliable source of positive reinforcement. He should be a more effective teacher of internalized attitudes and behaviors than a non-accepting parent. Expressions of disapproval are more effective. The child's emotional reactions are likely to be more intense and more frequent after transgressions. (Martin 1970). These findings are supported by Heinicke (Hoffman 1963). Further confirmation is offered by Hoffman (1963) who found consistent results in studies dealing with reactions to transgressions. Moral internalization indicated by guilt, confession or reparation efforts was fostered by an affectionate relationship between the parent and child together with disciplinary techniques which appealed to the child's personal and social motives.

Acceptance-Rejection

This dimension epitomises those parent behaviors which encourage the child to interact freely and fully within his environment. The significance of this dimension is further supported by Hurley (1965). Parental suport and approval is coupled with minimal measures of coercive control techniques. Rejection, is that pattern of behaviors which constrict and limit the child's freedom to explore his

environment. It may be accompanied by such measures as punishment, intimidation of the child, and other fear inducing techniques.

Parental rejection may imply generalized negligence or direct punishment and abuse of the child. If it originates in a person (usually a parent) who controls the child's food and love supplies, it may lead to extinction of approach responses towards those persons and others associated with them. The child may acquire avoidance responses. Rejecting parents are not expected to stimulate intellectual development and effects in the transmission of social rules, attitudes and values can be expected. The Fels study indicated that those children who are free to experience new situations also experience encouragement in developing their abilities as they master their environment. The discouragement and punishment that the child has experienced may inhibit the growth of his natural curiosity.

2.5 Congenital Contributions

Sears et al (1957) express an awareness tht the relationship between mother and child is not one of a simple cause and effect. The model of a uni-directional approach is an over simplification.

They further consider that probable constitutional differences between children influence behavior.

Congenital contributions to human behavior are supported by Bell (1968). He proposes that children low in person-orientation induce less nurturance from parents. The children are interested in physical activities and inanimate objects. Parents are therefore reinforced to provide or withhold physical objects and activities. They use physical punishment because love-oriented control techniques are less effective with these children.

Children showing little internalization of a moral orientation may be considered to be congenitally low in person-orientation. Mothers were less affectionate towards them and did not appeal to the child's personal or social values. Children high in person orientation attend to their parents, reinforcing their social responses.

Bell (1968) considers that parental socializing techniques are organized in a response hierachy. The characteristics of the child will therefore elicit a specific response from the parent. Lack of reinforcement by the child to the parental action will evoke different hierachical responses.

Parental control may be differentiated into upper-limit and

lower-limit control behavior. Upper-limit control restrains the child when his behavior is deemed to exceed parental standards of frequency or intensity; for example, prolonged bouts of crying. Lower-limit control stimulates the childs' behavior that is below parental standards. The child who is lethargic with low activity, inhibited behavior, and a general lack of competence may reinforce the parent to be intrusive and demanding. The parent-child interaction may then encourage verbal and physical abuse.

2.6 Empirical Confirmation

Factors that foster prosocial behavior are parental affection and nurturance, parental control, induction, modeling and responsibility assignment (Staub 1975).

The study of Yarrow, Scott and Waxler (1973) indicated that the condition of "nurturance" led to greater imitation of the experimenter and prosocial behavior. However Yarrow et al (1973) note that nurturance in the child socialization experience is affectionate and rewarding over time. It may be experienced contingently as well as non-contingently and at the same time be a control function.

"Nurturance" in the experimental situation refers to a

micro-experience of several minutes of total nurturant involvement with an (usually) unfamiliar experimenter. It is questionable that the rich complexity of the nurturant relationship between parent and child can be encapsulated within a laboratory experience of a temporary nature. It is proposed that "nurturance" in the experimental situation may increase the likelihood of a child learning neutral responses of the model. But it will be of little use in responses of self-control, self-denial and delay of gratification. (Yarrow et al 1973). Krebs (1970) states that the manipulated "nurturance" is direct positive social reinforcement.

2.7 The Baumrind (1967) Study

Baumrind (1967) researched child-rearing practices on 4 dimensions, namely control, maturity demands, clarity of communication and nurturance.

The control dimension refers to the degree of permissiveness or restrictiveness practised in the home (the permissiveness-strictness dimension of Sears et al 1957).

Control may be authoritarian or authoritative. Authoritarianism is characterised by a conformity to absolute

standards of conduct and a favouring of punitive forceful measures. Respect for authority, law and order and traditional social structures is paramount. Use of discipline is power-assertive (Hoffman 1970). The parent capitalises on his own physical force and control, e.g. frequent spankings or deprivation of material objects. This may produce a moral orientation based on fear of imposition of external forces. Furthermore, this expression of anger or physical force provides a model of the same for the developing child in terms of social learning theory. A similarity to the "object orientation" of child discipline of Sears, et al,(1957) is noted in that those parents who use withdrawal of favourite toys or food, tend to use more physical punishment and actions with less verbal explanation.

By contrast, authoritative parents are characterised by a rational orientation towards discipline. Autonomy, yet a disciplined conformity towards future conduct is a significant striving. Induction by the parent and encouragement towards verbal give and take is a feature of this type of control.

Maturity demands refer to parental demands for the child to perform at his own level of competence with the freedom to make his own decisions. Stable family relationships which are consistent and

dependable, lead to continuity and predictability. Furthermore the practice of induction whilst controlling gives a secure framework for activities. The parent is constantly teaching and giving information.

It should be noted that older children from larger families may reveal a higher level of maturity. Research evidence (Clausen 1968) indicates more demands (towards self-care) in larger families. First born children also have greater responsibilities. Stimulation and the provision of models is important, but the opportunity to perform mature acts is equally significant. Stifled early efforts by children within a restrictive home environment may reinforce the development of dependency, the child is unable to act for himself and therefore relies habitually on others. Direct social reinforcement however may be necessary for the child to learn to value the activities of achievement as sources of satisfaction and security (Crandall 1968).

Communication refers to the clarity of parent-child communication. Piaget (1932) points out that moral growth would be fostered by a more egalitarian reciprocal parent-child interaction. This is further supported (and of special interest in terms of this study of altruism) by Kessen (1979). He found that collectivist life in mainland China society is characterised by a

high degree of prosocial activity amongst children and a concommitant near absence of anti-social behavior and aggression. The traditional vertical-authority relationships are replaced by horizontal-peer relationships and co-operative behavior.

Nurturance includes the expression of warmth, love and the degree of involvement with the child in terms of praise and pleasure. The basic feature of parental love, is that the child is valued and respected unconditionally. This leads to self-acceptance and acceptance of others. According to Moore (1948), this is then

> "ever afterwards craved and so
> constitutes the powerful driving
> force of human nature" (Pringle 1970).

Nurturant parents with a high degree of warmth and involvement are presumed to be efficient reinforcers of the child's mature behavior (Mussen 1969). Rewards used are love and approval. The parent then becomes a positive object towards the child and all his behavior is directed at pleasing the parent. Later, through generalisation his concern is directed towards others. However, a lack of warmth on the part of the parent leads to self-hate in the child. Mothers who lack warmth do not practice induction and then children lack security and self-control.

Pringle (1970) considered 4 needs of children which require fulfilment throughout development. A child needs love and security and praise and recognition. These needs are subsumed within the dimension of nurturance with its emphasis on degree of involvement. Maccoby (1983) notes that parental warmth is being redefined interms of dimensions such as, responsiveness or sensitivity, affective expressiveness, involvement etc. leading towards an interactive approach of socialization. Baumrind's (1967) dimension of nurturance implies an interactive awareness.

The child's need for responsibility and need for new experiences are subsumed within the dimension of maturity demands. Fulfilment of these needs leads to the development of social competence defined by Baumrind (1972: 180) as

> "behavior which is socially responsible and independent".

CHAPTER THREE

MORAL REASONING

Moral judgment entails a complex process with both cognitive and affective components. Different situations involve different patterns of moral, social and personal issues. Other factors such as the influence of varying situations, the persons involved and the costs and benefits to the self and others all contribute.

3.1 Interpretations

Blasi (1980) interprets moral reasoning as

rationalisation of actions rather than a preparation for actions. It is also considered to be an expression of the human need for a coherent and ordered account of one's course of action.

In contrast with this view an alternative emphasizes the role of cognitive processes. They donate moral meaning to the "needs" and "actions" of the above interpretation. "Morality" then would accrue to the special meaning that the actions have for the individual and the manner in which these actions are performed towards certain goals. Moral actions then are considered those that are performed willingly as a function of values that are understood and accepted by the persons concerned. This reasoning is characteristic of Piaget, Kohlberg and of cognitive developmentalism in general. Moral meanings depend on the general criteria that constitute the persons understanding of morality. These criteria are part of the developmental process towards maturity.

Piaget (1932) and Kohlberg (1969) view morality as self-constructed. The child's experiences and his interpretations of them form the basis of his moral code. His social interactions and their consequences, whether pleasant or unpleasant, contribute to morality

development. In contrast, socially constructed knowledge is received from other people. It may be formal or informal; intended or unintended.

Shewder (1980: 56) proposes the hypothesis that:

> "..moral understandings are tacit understandings achieved primarily from having lived in a distinctive cultural environment which is packed with implicit messages about what is of importance, what is of value, who counts as a person, what are the territories of the self, and which likenesses or differences among people should be emphasized or overlooked".

3.2 Assumptions

The measuring of information and attitudes relies on the content of simple statements. There are three assumptions. Firstly, that statements concerning values are understood in the same way by researchers and

subjects alike. Secondly, that actions have the same meaning for all the participants; and finally that the meaning of the actions corresponds to the meaning verbalized by all the participants.

Moral development then proceeds via the process of internalization. Standards of conduct which were initially maintained by immediate external factors, are now maintained by internalized values and beliefs leading to self-control in the absence of external restraints. The shift from external to internal control is judged to be the basis of the process of moral development.

3.3 Research

Most of the research concerning the development of moral reasoning has centred around three broad categories, namely parental discipline, cognitive disequilibrium, and identification and modeling (Hoffman 1977). The main focus of this review will cover research in the categories of parental discipline and cognitive disequilibrium. Parental discipline will be discussed in so far as it is applicable to moral reasoning. It has already been enlarged upon in chapter 2.

3.3.1 Parental Discipline

The rationale for assuming that parental discipline is significant is that moral reasoning requires internalization. The individual must compromise between behaving in accordance with his own desires, but at the same time subordinating those desires and behaving according to moral standards. Those standards are embedded in the disciplinary process. Hoffman (1970) looks at three types of discipline. Firstly, power assertion; which is characterized by physical and verbal abuse, loss of parental temper, and overall control by the parent of the childs' material resources. Secondly, love withdrawal; the parent shows his disapproval of the child directly but in a non-physical manner. Either parent or both may refuse to speak to the child, isolating him or even threatening to send him away. It is highly punitive because the child is unaware of its temporary duration. Finally, induction; these techniques include explanations, possibly other-oriented to the potential harm of particular actions, or reasons for the need for the change of behavior. Induction is particularly

significant in that it harnesses the child's natural tendencies towards empathy. It also emphasizes the child's awareness of responsibility towards others.

Most of the research in the 1950's and early 1960's on parental discipline was correlational.

Experimental research began in the 1960's. Studies examined resistance to temptation. (Aronfreed and Reber 1965). Children were left alone with toys after having been previously "disciplined" by an unpleasant noise. The degree of "disciplining" was determined by whether or not the child plays with forbidden toys and how soon after being left alone with them. Observation takes place through a one-way mirror.

Other researchers (Cheyne and Walters 1969; La Voie 1973; 1974) have added a verbal condition. This may vary from a simple to a highly inductive statement. Results indicate that talking to the child results in a greater resistance to temptation when coupled with mild, rather than severe, punishment (Hoffman 1977). Lvoie (1974)

found no significant positive relationships when using the moral judgment measure of Piaget stories on moral realism, expiatory punishment and immanent justice between total moral judgment and latency of deviation, and moral realism and duration of deviation. There was a significant positive relationship between moral realism and latency of deviation. A study by Grinder (1964) with children aged 8, 10 and 12-years found significant positive relationships for girls between moral realism and degree of resistance but not for boys.

This was further supported by Hoffman (1975) who proposed that child rearing techniques use more induction and affection for girls and more of power assertion for boys.

Many criticisms are aimed at experimental research on moral development. Hoffman (1977) criticized the telescoping of behavior which

results in a lack of distinction between a moral act and a child's response to discipliniary techniques. The behavior that is defined for the sake of the experiment may reflect compliance with the experimenter's instructions as obedience in a laboratory situation is considered to be an artifact of the experiment. (Baumrind 1964).

Other studies look at the development of self-criticism. A child is given a task and then is punished for doing something over which he has no control. Within the experimental situation it is suggested that the child who verbalizes a self-critical label is repeating a description of the action given to him by the experimenter and does not indicate moral internalization. This is supported by Grusec and Ezrin (1972) who found that a child who used a self-critical label when buzzed by the experimenter showed little emotional disturbance.

3.3.2 Cognitive disequilibrium

The development of research concerning prosocial reasoning varies in terms of the procedures used

by Piaget and Kohlberg.

As a detailed explanation has already been given of these two major theorists in Chapter 1 only a brief comparison of their approaches will be given.

Piaget and Kohlberg view moral internalization as occuring in a series of fixed qualitatively distinct stages. Piaget proposes that the preadolescent child develops from the heteronomous stage which is characterized by unilateral respect, moral realism and egocentric thought, to the autonomous stage. This is governed by mutual respect, autonomous morality, and freedom from the restraints of limited thought processes.

> "It is as if each child relived the French Revolution, throwing off the Ancient Regime and getting together with peers to write a constitution". (Shewder 1982: 59)

The Kohlberg theory enlarges the Piagetian framework identifying three levels (each divided into two stages). The child moves through the levels to the stages where morality is identified with principles of justice and respect for all persons. Turiel (1975) states that one of the strengths of Kohlberg's analysis lies in its attempt to isolate the distinctive features of morality, for example; justice.

3.3.2a Piagetian orientation

Piaget studied moral development by presenting children with two stories involving moral behavior. The children are then required to make comparisons concerning the stories. They must decide which of the story characters was the naughtier or which story solution is the fairer and then justify their decision. For example: "Is the child who broke 14 cups naughtier than the child who broke 1 cup?". The alternatives are predetermined. Those researchers (Baldwin and Baldwin 1970) who have examined childrens' reasoning or prosocial behavior have examined criteria used in identifying actions as "kind" or

"nice".

In early literature it is stated that young children base their judgment more on consequences than intent information (Piaget 1932). These two kinds of information are presented in the same order - that is, intent is followed by consequence. The order is never reversed. Feldman, Klossons, Parsons and Ruble (1976) hypothesized that because these two kinds of information are presented in the same order findings that appear to support consequence-oriented morality really support a recency effect of presentation. They found that order of presentation influenced the children's moral judgments. However memory data collected indicated that the pattern of forgetting consequence or intent when presented first was also a contributory factor.

The significance of the earlier-mentioned assumptions of mutual understanding of values actions and words is highlighted by Nucci and Turiel (1968) and Turiel (1978). They question whether the lack of moral understanding per se is

a function of the experimental situation. Young children are required to articulate reasons for their moral decisions (Shewder 1982). This lack of ability to verbalize is further enlarged in that children and adults in most cultures are not good in giving reasons for moral actions. They conclude by wondering whether this inability is the underlying reason for unequal distribution of moral feelings across cultures and age groups.

3.3.2b Kohlberg orientation

In comparison Kohlberg's stories contain a conflict between two or more moral dilemmas; for example, the Heinz story requires the subject to decide whether a poor man is right to steal a drug which is needed to save the life of his wife. The subject must explain his reasoning for the decision. Those researchers using the Kohlberg paradigm look at reasoning and judgments given for moral courses of action.

Kohlberg's moral dilemmas are set in a prohibition-oriented context. Rules, laws,

punishments and institutionalized regulations are the salient features of the dilemmas. Although the dilemma of the Kohlberg stories does permit prosocial behavior it would entail the breaking of a law or transgressing authority. Eisenberg-Berg (1982) does not consider that these stories tap prosocial moral reasoning. Personal moral reasoning in a prosocial context may only involve a cost to the actor himself. Prosocial behavior does not always entail breaking the law or violating rules.

Rule, Nesdale and McAro (1974) found that 5-year old children condemned an intentional harm-doing act less when it was for "prosocial" rather than "hostile" reasons. A child was judged less naughty if she hit somebody in order to regain candy to return to "whomever lost it" than if it were to make the recipient "feel bad" (Darley, Klosson and Zanna 1978). It seems apparent that even young children use a wide variety of information and consider mitigating factors.

Negative consequences for actions were expected to influence moral decisions. Krebs and Kohlberg

(1973) speculated that if a person is required to make a great personal sacrifice then his behavior may not be altruistic (prosocial). In support of this speculation a study conducted by Gerson and Damon (1978) found that young children exposed to the loss of "real" candy compared with "pretend" candy were less fair in sharing candy bars. They further speculated that those persons using the lower levels of moral reasoning are able to rationalize self-interest more than those who make use of higher levels or moral reasoning. This was confirmed by Ruthford and Mussen (1968) when a 'generous' group of 4-year old boys were found to be less competitive, less aggressive and more kind than a non-generous group of children.

Trainer (1973) conducted a study (unpublished) to attempt to assess the value of references to principles for classifying moral thought. The study comprised the eliciting of statements (322 - from 50 individuals). 141 Statements were unrelated to any of the "stages" in that they were either unintelligible, or expressed no underlying principle other than a religious one. He further questions that Kohlberg's conclusions

are direct reports of moral thought from empirical data. For example Kohlberg (1969: 386) states that on average 50% of a childs moral judgement fits into a single stage. Two individual profiles are printed. One is bimodal and the other has approximately equal frequencies of responses at four of the six stages.(Kohlberg 1958: 200 unpublished). Further confirmation is offered by Haan, Smith and Block (1968) who found that only 54% of their subjects would be assigned to one or other of the pure moral types.

In view of this observation it was also decided within this study to examine the modal responses of the subjects to see whether the responses confirmed Kohlberg (1969) statement of dominance of a modal response.

3.4 Relationship of cognitive development to moral development

Children develop cognitive structures for coping with physical, social and moral issues. Cognitive development is necessary but not a sufficient condition for moral

development (Kohlberg 1969). Hogan (1975: 158) states that moral knowledge is related to the quality and variable social experiences of the child and also to his ability to discover the rules of social behavior. This implies that moral knowledge is a function of intelligence.

In an attempt to test the hypothesised positive relationship between moral and cognitive development, some researchers have correlated performance in IQ tests with moral stage scores. Several of these studies yield a positive relationship between performance on standardized IQ tests and aspects of moral development. (Keasey 1971).

Studies are often criticized because the concept of intelligence held by the developers of IQ tests differs considerably from that held by cognitive-developmentalists. (Gelfand and Hartmann 1979). The developers of IQ tests view intellectual development as quantitative by nature. It becomes difficult to argue that different amounts of intelligence produce qualitatively different modes of moral reasoning. Keasey (1975) proposes that positive correlations between the IQ and moral reasoning do not indicate a parallel development. It is possible that children with higher IQs

move through the stages (Piaget's or Kohlberg's) at a faster rate than children with average or below average IQs. He further maintains that this relationship implies that the IQ affects the rate of moral development and

> "not the underlying structures that give rise to qualitatively different modes of moral reasoning".
> (Trainer 1973: 41)

3.5 Prosocial Moral Reasoning

Researchers interested in prosocial behavior have generally adapted Kohlberg's method and presented hypothetical moral dilemmas in story form (Eisenberg-Berg 1977: Eisenberg-Berg and Hand 1979: Mussen and Eisenberg-Berg 1977). Other researchers have looked at the children's own behavior and examined the reasoning behind it (Eisenberg-Berg and Hand 1979: Damon 1971: Ugurel-Simon 1952). It will be remembered that the definition of prosocial for this paper is that of Mussen and Eisenberg (1977)

> "actions that are intended to aid or benefit other persons or groups of people without the actor's anticipation of external rewards. Such actions often entail some cost, self-sacrifice

or risk on the part of the actor". (p.7)

Those researchers using Kohlberg's (1969) scheme of moral judgment have produced a greater understanding of children's moral reasoning. Most of the research concerns prohibition-oriented moral judgement. The Kohlberg dilemma stories permit a choice of helping behavior but set in a context of laws, rules, authorities and institutionalized obligations which by the processes of internalization and socialization must inevitably dominate the individuals reasoning about the conflict. Few researchers have examined prosocial moral reasoning. One of the earliest studies is that of Ugurel-Simon (1952) who researched childrens' (4 to 16-years of age) reasoning about their own sharing behavior of nuts between himself or herself and a peer.

The childrens' responses were coded into 7 categories. Egocentrism was the lowest category (mean age = 7-years 3 months): sociocentrism (obedience to moral and religious rules and customs (mean age = 9-years 2 months): awareness of social reaction (e.g. shame, mean age = 9-years 3 months) superficial reciprocity (emphasis on quality: mean age = 9 years 5 months) deeper co-operation and reciprocity (mean age = 10-years 5 months); altruism (sympathy, scrifice; mean age = 10-years 5 months): and justice (justice and right demand equal sharing; mean age = 10-years and 10 months). These categories indicate the

progress from egocentric selfish thought because of a lack of differentiation of the self towards the stage (approximately 10½ -years) where the child is emphasing maintaining relationships and helping, motivated by empathy or justice. Although there is an absence of authority and punishment reasoning there is a similarity to the sequences of the Kohlberg development. (Eisenberg 1982).

A study by Dreman and Greenbaum (1973) examined kindergarten children's reasoning regarding their own sharing behavior. Their responses were coded into four categories: reciprocity; the child shares because of services rendered or a possibility of future services: in group; the donor feels obligated to help people because of friendship ties or to return past favours: social responsibility ; social norms obligate the benefactor, and finally altruism or empathy; the giver wants the recipient to be happy.Results indicated an increase in candy-sharing across the categories from reciprocity to altruism. The highest frequency of responses was categorised as norm-directed.

These results were not supported by those of Eisenberg-Berg and Hand (1979) where the majority of responses was categorized in the 'needs-oriented' and 'hedonistic' categories. A higher incidence of sharing behavior (prosocial) was associated with more use of the higher levels of reasoning for that behavior.

This finding is comparable with that of Bar-Tal, Raviv and Leiser (1980). Children who shared candy without the promise of a reward or adult-pressure used more mature reasoning than those who shared when a reward was promised or asked to share the candy. Other researchers who have examined the non-prohibition aspects of moral judgment include Damon (1977) who investigated the development of young childrens conceptions of justice. He designed a series of games and stories that test for justice in preschool children and proposed a stage model labeled to match the existing Kohlberg model. Justice is a means of resolving conflicting claims between persons.

There are three stages. Each stage consists of a set of values, standards and beliefs enabling the child to resolve particular moral problems.

Justice stage 0 (zero) = the problem is what the child wants and how best to get it.

Stage 1 (one) = the problem is others make demands, claim rights and the self must recognize these claims.

Stage 2 (two) = the problem become the resolution of conflicting although justifiable interpretations concerning the rights and claims of the self and others (Selman and Damon 1975).

Each stage is integrating new social conceptions with the childs' justice reasoning.

Selman (1975) examined interpersonal moral reasoning and proposed an ordered sequence of social perspective-taking describing a form or reasoning about the relationship of the self-perspective on social events to that of others.

A series of studies have examined pre-school children's prosocial moral reasoning (Eisenberg-Berg and Hand 1979: Eisenberg-Berg and Neal 1981: Eisenberg-Berg and Roth 1980). Individual interviews in which the child is read stories (usually 3 or 4). Each story contains a dilemma in which the needs of an individual or a group conflict with those of another. Whithin the story context the roles of authority, laws and punishment are minimized. The responses are coded into categories (see 6.2.1).

The majority of responses were coded in the categories. Responses in the authority and punishment category were few. It will be remembered that Kohlberg (1969) has stated this type of response dominates prohibition-oreinted reasoning in young children. Stereo-typic reasoning is also used in the Eisenberg-Berg and Hand (1979) study. It appears to emerge earlier in prosocial than prohibition-oriented reasoning. Prosocial reasoning is apparently more advanced than prohibition-oriented reasoning. This was further supported in a study by Higgs (1975). Prohibitions were introduced into prosocial issues (with adult subjects) and results did not find any advancement of the prosocial moral

reasoning. (Eisenberg 1982).

Development trends in children's reasoning can be identified but there are still differences at given age levels. Factors to be considered include personality and socialization experiences, including opportunities for role-taking, empathy and cognitive development.

3.6. Relationship between Moral Reasoning and Prosocial Behavior

Behaviors which are mostly associated with morality are kindness, helping one's fellow-man in his needs, sharing resources with those less fortunate and refraining from hurting others both physically and emotionally. But it is not a direct and simple relationship. The contribution of such variables as the type of relationships between the helper and the recipient: deservedness of help; the urgency of the others needs; the cost-benefit ratio between the recipient and the helper; the conflict of altruism with other moral considerations, for example; responsibilities, social expectations and obedience, morality of co-operation, helping and sharing. There may also be age-developmental changes.

Mussen (1977) studied the degree of congruence between what children say about helping others and their own helping

behaviors. Children's views were gathered on such questions as, "what people do you help?", "which are the people you do or do not need to help?".

The children's actual behavior consisted of their helping or not helping a classmate, who had been assigned a task of moving a pile of books from one table to another. Of the kindergarten age-group, 100% helped their classmates. Almost all (percentage not given) said that they helped at home and should help their family members. 93% said that there is no one that they need not help. Eleventh graders said they mostly help in school and should help everyone. But 73% also said that it is wrong or not necessary to help certain people; for example: those who do not ask; those who are too proud; persons who can help themselves or those who do not help others (Blasi 1980). The study did not include assessment of the moral reasoning of the children. Blasi (1980) considers the parallellism that the author tries to establish between the findings and developmental theories of moral judgement as superficial.

Studies were conducted by Rubin and Schneider (1973) in which candy-sharing with poor children and helping a younger child complete a task was the altruistic measure and the measure of moral judgment was Lee's stories. (Dilemma stories, three authority versus altruism and three peers versus altruism).

Responses which were coded into Lee's five levels of moral judgment showed significantly positive relationships between moral judgment and sharing. Positive relationships were also found in a study by Levin and Bekerman-Greenberg (1980) between level of reasoning and sharing behavior, and Dreman and Greenbaum (1973) between level of reasoning and sharing behavior (Eisenberg 1982).

Measures of moral reasoning may be grouped according to their degree of generality. At one extreme there is reasoning about the specific behavior elicited by the experimental task; for example, sharing. At its polar opposite there is an attempt to assess the basic structure of moral cognition; for example, the Kohlberg scale, the Eisenberg-Berg scale. In the middle there are attempts to assess reasoning concerning positive justice; for example, distributive justice (Damon 1977).

3.7. Teacher Ratings

The teacher ratings on the relationships of children between behavior and moral reasoning refer either to specific behaviors or to habitual actions of real life. (Santrock 1975: Damon 1977). Although there are the advantages of generality and relevance, bias of the "halo" effect, and social visibility may distort the

findings.

Damon (1977) in a study in which teacher ratings were leadership, sensitivity, humour, gregariousness, friendliness and generosity; found significant positive relationships between real-life moral judgment and the teacher-ratings, and also between hypothetical moral judgment and friendliness. There were no significant relationships between hypothetical moral judgment and the other teacher ratings. The measures were two hypothetical dilemmas. Santrock (1975) in a study using three moral dilemmas of Kohlberg and teacher ratings of social conscience, social deviation and sociability did not find any significant relationships.

A study by Kohlberg (1958) with behavioral measures of obedience, effort, strength of conscience and fair mindedness, and the moral judgment measures of the Kohlberg moral dilemmas, found a significant positive realtionship between the moral judgment score and the strength of consciousness. He also found a significant positive relationship between moral judgment and fairmindedness, but non-significant relationships between obedience and moral judgment and effort and moral judgment.

Blasi (1980) questions the appropriateness of the selection of certain of the aforementioned behaviors. The behaviors of sociability or friendliness selected as moral and related to

understanding of morality may be part of personality characteristics. They are non-cognitive and perhaps non-developmental. To what extent does a natural tendency to friendliness affect the development of moral reasoning and changes in general behavior? Conversley, behavior of friendliness and sociability may be developmental in nature and depend on cognitive and affective components of personality restructuring.

CHAPTER FOUR

SOCIAL MATURITY

A child's social development requires constant change and adjustment in his behavioral patterns. His social behavior determines the degree of satisfaction that he will acquire both from a physical and social standpoint.

Social maturity is defined as:

> "the requisite for harmonious adjustment
> within even the most primitive of cultures"
> (Thompson 1962: 460).

Social acceptability to others becomes an important goal and motivates the developing child increasingly towards the acquisition of new social skills, attitudes and patterns of behavior. The socially immature individual has little chance of satisfying either his social or physical needs in an acceptable manner. Therefore social maturity in children is a sought after goal by all parents, teachers and those involved in child care.

Baumrind (1980) encapsulates these aims of socialization

> "...as an adult initiated process by which developing children through insight, training and imitation acquire the habits and values congruent with adaptation to their culture". (640).

4.1 Classification

There is no overall theory of social development as such but rather a series of social behavior classifications which divide social maturity into developmental stages. An example is the theorist Feldman (1941). He has proposed a four-stage classification. Firstly - "domestication" which marks the child's infancy period and is characterized by total dependence by the

child upon his parents: secondly the "parting of the generations" which is the school going period characterized by the child's awareness of social acceptability and behavioral adaptation to his peers. There is a general broadening of his social activities. Thirdly there is the period of "quasi-adulthood" which is the adolescent stage and marked by both childish and mature social behavior. This is a testing time before adulthood where the mature person is accepted by society and has internalized social norms values and responsibilities (Thompson 1962).

Piaget (1932) has also proposed a classificatory approach to social behavior. It consists of two stages, firstly the egocentric stage which is predominant up to the age of approximately seven years. It is characterized by an inability to follow rules and to consider others. This is followed secondly by the "social" stage. The child develops an awareness of others and is able to adopt his behavior accordingly.

In view of the vastness of the area of social development it is proposed to examine major studies of social maturity (social competence) with particular reference to the areas of impulsivity - reflectivity and self-control.

4.2 Baumrind's 1971 Study

One of the major researchers in the area of social maturity is Baumrind (1969: 1971: 1979: 1980). She defines social maturity as "instrumental competence" which is

> "...behavior that is socially responsible and independent. Behavior which is friendly rather than hostile to peers, co-operative rather than resistive with adults, achievement rather than non-achievement oriented, dominant rather than aimless."

Attention is also drawn to the possible survival value that these attributes have for the individual in any subculture or society.

There are two dimensions of instrumental competence, firstly responsibility versus irresponsibility which included the subdimensions of (a) achievement oriented versus not-achievement oriented,

(b) friendly versus hostile behavior towards peers and

(c) co-operative versus resistive behavior towards adults.

The children of parents who were authoritative and relatively conforming tended to be more friendly, co-operative and achievement oriented (that is more socio-responsible) than those parents who were authoritarian or permissive.

The authoritative parents who preached and practised prosocial behavior had children who were significantly more responsible than authoritarian parents who only preached prosocial behavior, but in practise were more concerned with their own welfare and needs. They did not model prosocial behavior. This has been confirmed empirically Bryan and Walbeck1969(Krebs 1970). Non-conforming individualistic parents who were themselves gentle and responsive to their children's needs even at the cost of their own and modeled prosocial behavior but did not preach it also had children who were socially responsible. Parents who supervised their children closely who demanded obedience, personal neatness and required that they share in household responsibilites had children with responsible behavior patterns rather than rebellious ones.

Those children of authoritarian parents compared with authoritative parents are low in socially responsible behaviors. Staub (1975) confirms that parental focus on responsibility leads to prosocial behavior. Family duties, for example, caring for younger siblings, having specific tasks, can lead to the natural

response of choice-sharing with others. This is confirmed by Whiting and Whiting (1960) in a cross-cultural study. Findings showed that children with responsibilities in the maintenance of the running of the family exibited helping actions more than those children in cultures where few demands of responsibility were made. Parents who verbally focus responsibility on the child and exercise control ensuring that the child participates in responsible actions are reinforcing the learning of a social norm. It is expected that people help others. It is an obligation to do so, and it is accompanined by rewards for complying or punishment for not helping. Children may also "internalize" this value as a function of the responsibility demands of the parents. In this manner then self-verbalization of past parental statements accompanied by positive affect from the actual prosocial behavior may act as a powerful reinforcer. The parent is constantly teaching and giving information. Baumrind (1969) proposes that the authoritarian parent does not practice induction. This supports Hoffman's (1970) proposal that the cognitive dimension which is necessary for the child to generalise from one situation to another is missing and therefore he does not benefit from it as a learning experience.

The second dimension of instrumental competence is that of <u>independent versus suggestible</u> behavior. It includes the sub-dimensions of:

(a) domineering versus tractable behavior,

(b) dominance versus submission,

(c) purposive versus aimless activity,

(d) independence versus suggestibility.

The non-conforming and authoritative parents, had the most dominant and purposive children. These parents set high standards of excellence providing an intellectual atmosphere and demanding high standards of education from the child. They provide a more enriched environment, possibly with encouragement in the development of verbal skills and reading which increases the child's selfrespect and independence functioning.

Authoritarian control or permissive non-controlling parents affect the child similarly in as much, that both types protect him from interaction with others. The child is understimulated, few demands are made upon him, and he therefore gains little knowledge and experience. Over-protective parents shield children from stress and over stimulation. This applies particularly to girls. Their development of assertiveness and frustration tolerance is inhibited. Demanding and non-protective parents expose their children to physical, social, and intellectual demands allowing the child to extricate himself from stressfull situations.

Parental willingness to rescue children from stressfull situations inhibits their developing self-mastery, and at the same time parental anxiety concerning the stress may increase the childs anxiety.

Crandall, Dewey, Katkovsky and Preston (1964) state that mothers of achieving girls were relatively non-nurturant. Baumrind and Black 1967 (Baumrind 1972) found paternal punitiveness to be associated with independence in girls. High achievement motivation is facilitated both by high maternal warmth when the child pleased the parent, and high maternal hostility and rejection when the child was displeasing the parent. (Rosen and D'Andrade 1959) (in Baumrind 1972).

Those permissive parents who made no demands upon their children regarding good behavior or selfhelp; did not make use of influence or reinforcement in any way thus avoiding confrontation when a child was naughty, had sons who lacked achievement and did not behave prosocially.

Baumrind further notes the more meaningful interpretation of looking at patterns of parental variables rather than the effects of single parental characteristics.

An awareness of the "general system approach" towards families is

indicated by awareness of the change in the parental pattern of child rearing influenced by the macro social system. A single parental characteristic may alter a pattern of variables of which it is a part.

4.3 Social Class Differences

Through an intricate system of selective rewards and punishment parents teach their children the response values and beliefs appropriate for their own social class. Evidence (Bayley and Schaefer 1960) reveals that middle-class mothers are more affectionate and less punitive than lower class mothers. A report by Davis and Havighurst 1946 (Deutsch 1973) stated that lower-class mothers were more permissive in child rearing techniques than middle-class mothers. Results of Sears, Maccoby and Levin (1957) supported the opposite, namely that middle-class mothers were more permissive than lower-class mothers. In consideration of the ten year gap of the collection of the data Bronfenbrenner (1958) concluded that both studies were valid, and that the child rearing practices of the groups had changed. Chilman 1973 (Caldwell and Riccuti 1973) considers that the powerlessness of the lower socio-economic classes clearly affects the development of a sense of competence.

Chilman continues that Smith (1968) emphasised the need for the individual sense of competence perceiving himself as being in control with a sense of responsibility. It reinforces his belief that he can interact with society in a successful manner. However the social structure affects the individual's personal sense of competence. The three major components of the social structure which influence the belief in personal competence are opportunity (which gives hope) power and respect. The interaction between these three is particularly noteworthy. Power can win respect and follow up opportunities.

4.4 Empirical Confirmation

A study by Bar-Tal, Raviv and Leiser (1980) in which children of kinder-garten and second and fourth graders were put into situations where they had an opportunity to share, supported the hypothesis that helping behavior (candy sharing) develops with age. The older the children, the more they shared under the altruistic and normative condition. (A compliance with social demands to gain social approval). The younger the children, the greater the number who shared under the condition of compliance (carries out the helping act only to comply with the request or command of authority with the promise of a specific reward in return for the sharing). The greatest number in all three age

groups shared under the condition of compliance. The researchers proposed that children of these ages tend not to initiate helping acts in unfamiliar situations when they are unsure of what is expected. This is further supported by Staub (1970). Results indicated that children who have learned rules of appropriate social behavior may be inhibited from helping in unfamiliar environments because of fear of disaproval of inappropriate behavior. The conditions of cognitive, social perspective and moral orientations are necessary but not sufficient. The children must also learn to put these conditions into operation. Young children have less social competence than older children and they have fewer resources upon which to call.

Peterson (1982) confirms that ability to perceive help by first-grade and sixth grade children may be associated more with social experience (competence) in helping, but with pre-schoolers their perspective taking ability is an essential for helping.

A further study by Harris, Mussen and Rutherford (1976) looked at the relationships between cognitive, behavioral and personality variables, and maturity of moral judgment in 10½ year old boys. They found a significant relationship between level of moral judgment and maturity of moral behavior; results also suggested an association between moral maturity and social adjustment. Unfortunately the researchers provide no information about the

factors underlying and accounting for these relationships. The boys who made relatively advanced moral judgments tended to be self-assured and confident in the areas of social relationships with peers.

Anderson (1949) introduced the concept of "social visibility". As a result of competencies a child is percieved as being more "socially visible". This is particularly relevant in child interactions where one child may be better able to direct these skills towards the ongoing process of the group. (Clifford 1963). Ratings by participant observers of prosocial behavior of children may be distorted due to social visibility of the child, contributing to bias and the halo effect.

4.5 The Harvard Preschool Project

White, Kaban and Attanucci (1979) conducted a study on the development of competence during the 1st 6 years of life of the children of 60 families. The purpose of this Preschool Project was to structure a scheme of experiences (intervention programme) during this developmental period to maximise the child's potential for competence by a parent training programme.

The data collected was both of a quantitative nature; obtained by

a broad battery of tests, and a qualitative nature; by means of home visits and observations of child rearing practices. One of the aims of this study was to highlight a critical period of development of competence. A pilot study showed a critical period of a "falling off" of development in the 8 - 36 month period.

These researchers found that a close social relationship shortly after the 1st birthday characterised those children with optimal development.

This finding was further supported by Ainsworth, Salter and Whiting (1967) supporting the significance of contingent and non-contingent stimulation. An environment that is responsive to emerging behavior and skills is necessary for adequate development. The child requires a degree of feedback in social interaction for the development of a generalized belief in his ability to control his social environment.

White et el (1979) identify individual social experiences, firstly - procuring the services of another. This applies to situations in which the child uses the adult as a resource or tool for help in order to achieve a desired goal. The second major social task is the attempt by the child to gain attention. The child who is attended to by responsive caretakers has less need to develop attention-getting skills. A child cannot have

many of these experiences if he is not near an adult fairly often during the day, nor would he have much of these experiences if responses were not forthcoming in his attempts to achieve social contracts.

These researchers identified non-social experiences as those in which the child is not trying to create an effect on another person; for example, gaining information through vision or steady staring. They conclude that possibly the tendency of the parent to instruct the child, to talk about things seen and attracting the child's attention influence the frequency of staring. Language experiences such as live language directed towards the child is most strongly associated with optimal development, i.e. later intellectual, linguistic, and social achievement. Live language of the child's current topic of interest plays a key role in his developing social skills, achievement of language facility, and higher mental abilities. Speaking to children whilst trying to redirect their attention is less useful than identifying the interest of that moment. Language development is basic to socialization. True language learning begins at 6 - 8 months. It makes rapid progress and is dependent on input from others.

Curiosity development is present in all, but a few children. It is present in great quantities at 7 - 8 months but can be diminished by 3 years. The concentration of curiosity, interest, and exploration by the child on the primary caretaker reinforces the need for close proximity to that caretaker.

Restriction of locomotor efforts was associated with those children doing the least well in social competence. These findings support those of Baldwin (1954) that parental indulgence produces relatively inactive children characterized by physical apprehension and lack of skill in muscle activies. Children who were regularly confined to play-pens or cots for long periods became bored. These children were "passing time" and were therefore unable to satisfy their curiosity and practise newly emerging skills. The child of 12 - 15 months with high "passing time" experience resulted in a less interested child of 18 - 21 months with less exploratory enthusiasm because of earlier restrictions.

They concluded that the four areas of risk between 8 and 24 months of age were, language development, curiosity development, social skills and attachment development, and development of the roots of intelligence.

4.6 Adaptation to social realities

Through socialization processes the child must accommodate both to natural realities - those which affect his health and general care and safety, and to social realities which are more abstract. These include scarcity of resources, reciprocity an indeterminancy. (Baumrind 1980).

Scarcity of resources requires adaptation by all persons from birth. The needs of the infant are not always instantly satisfied whether they be nurturant or attentive caretaking. With development the child's own performance will influence his ability to draw on the resources of the care-takers.

The Principle of reciprocity is an all subsuming norm which governs familial relations as much as social relations. Within a reciprocal and interacting system such as the family, the individual's responses stimulate the interactive system of social exchange and at the same time maintain the balance of the acting members rights and duties. Individual actions produce the social conditions which then influence his own and others future behavior.

A study by Baumrind (1971) concluded that authoritative parents see the changing balance between the rights of parents and

children as a function of the developing maturity of the child. It is also an expression of the norms of reciprocity which they desire the children to ultimately adopt, - and by which they themselves operate.

Conversley, authoritarian parents view children as having few rights, but having responsibilities similar to those of adults; whereas permissive parents view their children with rights similar to adults but with few responsibilities. The underlying norm of reciprocity influences the mutual exchange of gratification and also facilitates the development of moral action in the maturing child.

Indeterminancy and imperfections however, exist in all systems and the balance must inevitably be affected. The ability to roletake which develops with its other-orientation and a developing ego-resilience help to compensate for the imperfections in the family and wider social system.

4.7 Significance of female/male nurturance

The father is looked upon as a supportive figure rather than a primary care-taker. The function of the father is to introduce the norms of society into the family and to loosen

the dependency ties of the children with the mother. (Parson 1951: Biller 1975). The affection and love of the mother is undemanding and unconditional. Studies by Gilligan (1977) and Holstein (1976) report sex-related differences in the development of moral judgment. Mothers compared with fathers are less advanced on Kohlberg's moral judgment scale (Baumrind 1980). It is proposed that males focus more on issues such as justice and rights, compared with females, who favour issues such as compassion and love.

Baumrind (1979) noted that young girls of 4 and 9 years are prosocial, more friendly, co-operative and self-controlled, than young boys of the same age. Although still dependent, boys identify with the role of a man. This is interpreted as a posturing more than a genuine introjection of male characteristics. They constantly require reassurance from maternal surrogates concerning the efficiency of their performance. It is furthermore proposed that the ideal of prolonged unconditional maternal love is a male-perpetuated myth which reinforces girls (not boys) to remain contented within the supportive and non-challenging home environment. In confirmation of this Baumrind states that independence and intellectual achievement of the girls are facilitated by parental demandingness.

Dinnerstein (1977) and Chodorow (1978) further state that as males and females are neared predominantly by females, the family structure reinforces the subordinate position of females. Boys conversely reject and suppress feminine type qualities and idealize male characteristics of the father (Baumrind 1980).

4.8 Impulsivity - Reflectivity

The syndrome impulsivity-reflectivity is considered to be a type of cognitive style, a manner in which cognitive functions are carried out (Hetherington and Parke 1979) and of significance in prosocial behavior.

Children show consistent individual differences in ways of processing, perceiving and remembering information which may change with age. Their cognitive style may be related to differences in personality, attention, motivation or cognitive organization.

Particular situations where there is response uncertainty may elicit a slow, accurate, careful response (reflective) or a more rapid response with many errors (implusive). Although reflectivity increases with age, individual

differences are still present at all age groups.

Studies (Drake 1970) McCluskey and Wright (1975) using the Matching Familiar Figures Test indicate that "reflectives" are more systematic and careful in checking the single stimulus figure and the 6-item stimulus array then "impulsives". Eye movements between the two stimuli are fewer and they omit examining some of the array pictures before responding. Although this appears to have ramifications for all types of testing the superiority of strategies may depend upon the nature of the task.

Zelniker and Jeffrey (1976) concluded that where the change to be detected was <u>inside</u> the picture requiring a more detailed scanning, "reflective" children made fewer errors. Where the change was on the edge or contour an "impulsive" child would detect it.

From early childhood into the school-aged years there is a fairly steady decline in impulsivity. Training methods (Ridberg, Parke and Heatherington 1971) of demonstration of reflective scanning strategies to impulsive children have yielded conclusive results (Heatherington and Parke 1979).

Differences in social behavior are also recorded. "Impulsives" are more curious, exploratory and easily distracted in play, than "reflectives" who will play with toys for a longer period after due consideration. "Impulsives" are also inclined to be more socially responsive (Heatherington and Parke 1979).

Studies by Halvorsen and Waldrop (1970) and Chapman (1979) also point out that parents of "impulsives" react with more negative commands and imperative control efforts, and less induction.

This dimension highlights the way in which parents and children provide reinforcement to one another in the entire socialization process.

Attentional processes are of fundamental importance to human behavior for they determine the information to be considered in any form of interaction. Developmental differences in children's ability to ignore irrelevant information whilst considering that which is significant can be responsible for the degree to which irrelevant stimuli interfere with performance. Lane and Pearson (See review 1982) propose that attention to relevant information increases with age whilst attention to irrelevant information decreases. However, Odom (1982) , questions this proposition as most of the research quoted in support of this statement comprised giving subjects tasks in which assessment of salience was not

given. The tasks consisted mainly of relational information. Age-groups of subjects in the tasks differed and consequently different perceptual hierarchies existed. They could contribute more to change in perceptual sensitivity than evaluation of relevant information.

4.9 Reflectivity - Self-control

It is fairly reasonable to assume that prosocial behavior requires a degree of responsibility and self-control. With reference to the prosocial definition by Mussen and Eisenberg-Berg (1977) which is considered satisfactory for this paper, elements of self-control and delay of gratification are self-evident. The ability to delay gratification is a developmental phenomenon. With increasing age children are able to delay for longer periods. At about 5-6 years of age they are able to utilize strategies assisting delay; for example, covering the reward. Berkowitz (1982) and Maccoby (1980) consider the growth of reflectivity to parallel that of increasing delay of gratification. Maccoby (1980) further proposes that limitations in controlling impulsivity may be caused by deficiencies in devising optional strategies in problem-solving e.g. delay of gratification.

Berkowitz interprets self-control as a process inhibiting

impulsivity to allow for reflectivity. A study by Peterson (1982) which offered support for competence as a significant factor in prosocial behavior of young children was interpreted by Berkowitz (1982) as rather more related to self-control.

Maccoby (1984) discussed two fairly distinct yet interrelated patterns of development. Firstly, families tend to stabilize around habitual patterns of interactions. The children's specific individual personality patterns are supported. Secondly, child development in a family is a powerful force requiring constant change of (increasingly mature) forms of interaction with one another. Similarities are noted with Baumrind's (1980) principle of reciprocity in which parents are receptive to and aware of a child's needs and views. They are taken into account when parents modify their own attempts to influence the child's behavior.

The uni-directional linear model of parent-child relationship is seen as being rejected by most researchers as impossible to account for the complex variations in human behavior. The bi-directional model advocated by Bell (1968) is not considered adequate as it does not deal with reciprocal causation within the family system. The relationship between parent and child inevitably changes during the child's development but the change may depend on the earlier history of that relationship.

C H A P T E R F I V E

RATIONALE

In this chapter the rationale for the study will be discussed leading to the formulation of specific hypotheses to be tested.

5.1 Purpose

To attempt to account for differences in the development of prosocial moral reasoning in pre-school children on the basis of differences in family functioning and social maturity: and to show whether these differences are reflected in prosocial behavior.

In this study the measurement of the following variables will be undertaken; moral reasoning, patterns of family functioning, prosocial behavior and social maturity. The correlations will be examined in order to determine what, if any relationships are to be found between these variables.

HYPOTHESES

That healthy types of family functioning will foster more advanced levels of moral reasoning.

That greater social maturity correlates with a more advanced moral reasoning.

That the higher levels of moral reasoning are associated with increased prosocial behavior.

That healthy types of family functioning will foster greater social maturity.

That healthy family functioning will promote prosocial behavior.

ADDITIONAL STUDY

The levels of moral reasoning will be examined to determine whether any relationships exist between the use of particular categories of moral reasoning (Eisenberg 1979). The children's responses will also be examined in terms of a dominant modal response (Kohlberg 1969).

RATIONALE FOR RESEARCH STUDY

5.2 Moral Reasoning

Historically the development of moral reasoning has concentrated upon middle-childhood, adolescence and adulthood (See Kohlberg 1969). Research at the pre-school level is limited. Moral development is that process of internalization of certain social and cultural values, as well as certain personal or universal values which do not apply to a specific social group or culture. Throughout the literature moral development has mainly been researched by Kohlberg or Piaget by presentation of moral conflict in story form.

Kohlberg's moral dilemmas are set in a prohibition oriented context, that is, the choice of the prosocial actions will transgress institutionalized rules and laws. Subjects are then asked to resolve the moral conflict and then explain their

reasoning. The stories contain issues which would only be encountered at the most mature point in development: for example, the Heinz story concerning a husband with a dying wife whose only chance for survival is a new drug which the chemist will only sell at a high price. Heinz must decide whether to steal the drug or allow his wife to die.

These dilemmas therefore (Eisenberg-Berg 1982) do not tap prosocial moral reasoning wherein the child must decide whether to satisfy his own needs or desires or those of others in situations where institutionalized moral norms are not the underpinnings of the choice. Personal moral reasoning in a prosocial context seldom involves breaking the law or violating the authorities. The cost of the prosocial behavior may be personal to the actor himself; for example, whether to assist somebody who has fallen and as a consequence be late for a party. There are no formal obligations or external prohibitions operating in this context.

Alternatively the Piagetian stories study the development of moral judgment by presenting children with two stories involving behavior. The children were then asked to compare the stories and make decisions; for example, which of the story characters was naughtier and which of the story solutions was the fairer. The stories therefore tap the ability of the child to understand the concepts of intention and consequence, - for example, is a child

who broke 15 cups whilst helping his mother naughtier than a child who broke 2 cups in a tantrum? The alternatives are predetermined in the context of the story. Researchers using the Piagetian model (Baldwin and Baldwin 1970) have also explained the criteria used by individuals in the labeling of behavior as "kind" or "nice".

It was decided to research the development of moral reasoning in a prosocial context in which the child is required to justify his decision. Neither predetermined alternatives nor institutionalized moral norms enter into the proposed stories. The stories used to examine the reasoning of the child for the prosocial choice of action are those from the study of Eisenberg-Berg and Hand (1979). (A detailed description follows in Chapter 6).

As all the research in the development of moral reasoning in a prosocial context has been undertaken in America the researcher's decision to undertake this area in the South African milieu was further reinforced.

5.3 Prosocial Behavior

It appears that a simple relationship betwen moral judgment

and behavior cannot be expected. Behavior may have a variety of motives which require different skills, with variable costs and benefits to the actor. Much of the inconsistency of results may be as a result of situational differences - the presence or absence of an adult and the manner in which the helping behavior is elicited - whether spontaneously or in response to a request.

A Likert-type rating scale was constructed for this research (see appendix B). Two of the questions refer to spontaneous prosocial behavior and the remaining questions (2) refer to verbalized concern. (See chapter 6 for a detailed description).

Certain researchers (Siegel 1982) who have examined reasoning concerning prohibition-oriented issues (that is related to authorities, laws, rules and punishment) and behavior of a prosocial nature (that is giving, sharing, helping etc.) have not found significant relationships between them, because the area of reasoning and the area of considered behavior both differ in content. That is, as different moral issues are at stake a lack of association may not necessarily indicate a lack of relationship but rather a lack of association in the type of reasoning used in the prohibition-oriented situation compared with the prosocial oriented situation.

Researchers Dreman and Greenbaum (1973) Bar-Tal, Raviv and Lester (1980) have found positive relationships between prosocial reasoning and prosocial behavior where the reasoning reflects an advanced level of judgment. This finding is consistent with research within a Kohlberg prohibition-oriented context (Kohlberg 1969; Blasi 1980). It was decided therefore to see whether this relationship is confirmed with preschool children (ages 4½ - 5) whose level of moral reasoning would not be as advanced.

Mussen and Eisenberg (1977) define prosocial behavior as

> "actions that are intended to aid
> or benefit other persons or groups
> of people without the actors
> anticipation of external rewards.
> Such actions often entail some cost,
> self-sacrifice or risk on the part of
> the actor". p.7).

This definition is considered satisfactory and will be adhered to for the purpose of this thesis.

5.4 Social Maturity

Researchers examining the concept of moral development have seldom looked at relationships between social maturity, family functioning and prosocial behavior. Socialization of the child and his growth towards social maturity reflect such activities as communication self-direction and social participation. They all reflect increasing freedom from need of assistance and supervision by others.

It is expected that prosocial behavior would be reflected in the degree of social competence. The child's inability to look after his own practical needs in terms of self-help because of lack of opportunity may indicate a lack of responsiveness or oppressiveness. Those families with 2 working parents may retard the child's progress through time pressures. At a given age level there can be large individual differences in a child's reasoning which may be due to the underpinnings of socialization experiences.

Differences in socialization result in differing opportunities for role taking, influencing the child's feelings and attitude towards people. The development of characteristics such as empathic responding and the appearance of more sophisticated moral reasoning levels may be retarded or accelerated.

It is proposed that those children who are more advanced in social maturity will also verbalize a more advanced level of reasoning and also behave more prosocially. Karniol (1982) suggests that awareness of need in others is based on the understanding of situations which in terms of parental practices of socialization emphasize the use of various forms of reinforcements; for example, approval and praise. Children acquire self-regulatory skills and perform more helping acts.

5.5 Family functioning from a systems viewpoint

In recent years there has been a growing awareness of the significance of the relationship between children and parents and the techniques which are used by parents towards their children. Most research in moral development has revolved around three broad areas, namely parental discipline, identification and modeling and cognitive disequilibrium, but in terms of dyadic functioning of one parent or the other and on one single dimension.

However researchers are becoming aware that earlier views of socialization were too unidirectional. They focussed solely on parental effects on the child neglecting the interactive

processes between the parent and child which results in a mutual reinforcement pattern.

Interpretation of the properties of the family as a social system allows for examination of elements in that family system. The behavior of the individual may then be interpreted as a symptom of the degree of healthy or unhealthy functioning of the system. Maccoby (1984) states that the family as a system carries its own momentum and self stabilizing properties.

Family styles of interaction are perpetuated. If any family member moves outside the usual pattern of interaction these properties are brought into play bringing that person back into his/her familiar role.

Researchers studying family functioning from a systems approach have focussed on one dimension, for example, communication (Watzlawick, Beavin and Jackson 1967) or role behaviors (Parsons and Bales 1955). Epstein and Bishop (Gurman and Kniskern 1981) argued that family functioning cannot be reduced to one dimension and therefore the Family Assessment Device (F.A.D.) based on the McMaster Model of Family Functioning was constructed. It describes properties of the family group and the patterns of transaction among the family members. Seven

dimensions of functioning, are identified, namely; problem solving, communication, roles, affective responsiveness, affective involvement, behavior control and general functioning of the family. (Further detail follows in Chapter 6).

5.6 Experimental Hypotheses

1. Significant positive correlations will be found between the scores on the Family Assessment Device (F A D) and Moral Reasoning (Moral R).

2. Higher scores of the Vineland Social Maturity scale (V S M) will correlate significantly and positively with higher scores of Moral Reasoning (Moral R).

3. Higher scores of the Vineland Social Maturity scale(V S M) will correlate significantly and positively with scores of the Prosocial Behavior Rating scale (Pros. B.R).

4. Significant positive correlations will be found between scores of the Moral Reasoning (Moral R) and the Prosocial Behavior Rating scale (Pros. B.R).

5. Scores of the Family Assessment Device (F A D) will correlate significantly and positively with scores of the Vineland Social Maturity scale (V S M).

6. Significant positive relationships will be found between the scores of the Family Assessment Device (F A D) and Prosocial Behavior Rating Scale(Pros. B.R).

Level of significance

Although a fair amount of research has been conducted between moral reasoning and prosocial behavior, little if any, has examined relationships between and amongst these variables together with child rearing patterns and social maturity.

As the probability of a Type I error is dependent upon the chosen level of significance it was decided to increase the probability of a Type II error. Therefore the more liberal significance level of, 10 was selected (Snodgrass 1977: 200). As this research is in the nature of a pilot study probability levels of the findings which are statistically significant will be given. (Siegel 1956: 9).

A correlational study in the development of relationships between the variables, moral reasoning, family functioning (child-rearing patterns) prosocial behavior and social maturity.

TABLE 1

RESEARCH DESIGN

	Moral R (stories)	Family F (F.A.D.)	Pros. b.r. (R.S.)	Social M (V.S.M.)
Moral R (stories)	-			
Family F (F.A.D.)		-		
Pros. b.r (R.S.)			-	
Social M. (V.S.M.)				-

p = ,10 (one-tail)

Moral R = Moral Reasoning

Family F = Family Functioning (Childrearing patterns)

(F.A.D.) = Family Assessment Device

Pros b.r. = Prosocial behavior

(R.S.) = Rating scale

Social M = Social Maturity

(V.S.M.) = Vineland Social Maturity scale

C H A P T E R S I X

METHOD

6.1 Subjects

The subjects of this study were drawn from a University Pre-Primary School of 41 boys and girls. The school is an "open" school and not restricted to university faculty members. All of the parents are from the local community. Three only are faculty members. All of the children are from the white South African race group and come from middle class families. The home language was English. There are two classes for the "older group" and the "younger group" respectively. The ages of the children range from

4½ to 6½.

The teacher of the "older group" is the principal. The mean age of this group is 5½ (66 months). The "younger group" is taught by an assistant teacher. The mean age of this group is 4 3/4 (57 months).

An interview was conducted with the principal in which the nature of the research was explained and her co-operation enlisted. The school register was consulted and the names and socio-economic status of the parents were noted. Explanatory letters were sent to the parents requesting co-operation and permission and the experimenter personally approached one parent member from each family for introductory purposes on the school premises; either when the child was dropped early in the morning or picked up at 12.30 pm. A talk on early moral development was also given at a PTA meeting and at the same time parents were further acquainted with the proposed research. Responses to the explanatory letter were positive except for 2 cases. A third subject was later disqualified because of communication problems. This left 38 subjects. There were 21 boys and 17 girls aged 53 to 79 months. As the mean difference between the two groups was only 9 months it was not considered sufficient to point to any significant age development in moral reasoning and therefore the children were considered as one group.

Attendance at the school by the experimenter lasted from July to December 1984 and hence the experimenter was known by sight to all the subjects. Each child was seen individually for one session in one of the classrooms between the hours of 8.30 and 12.30. The time-interval for each child varied from 15 minutes to 35 minutes as clarification of the story and "warm-up" was needed for some of the subjects. Each child was interviewed when all the other children were occupied within a class-period. No child was interviewed during the play-periods so as to minimise distraction and noise factors. However the noise level could not be controlled for every child, and in children of this age-group varying noise levels may be a confounding variable.

The age range 53 to 79 months was chosen because few studies concentrate on moral development at the pre-school age. Most studies examine moral judgment development during middle childhood and adolescence.

In consideration that this research is based on an American study the comprehension level of the subjects was confirmed with the principal of Ellerton Primary School Sea Point. The level of understanding of specific concepts, for example, "crippled" and "competition" were also confirmed with the teachers in the pre-primary school.

6.2 Instrumentation

6.2.1 Moral Reasoning

The method used is based directly on the study of Eisenberg-Berg and Hand (1979). Four stories are read to each child individually (Appendix A). Each story contains a prosocial moral dilemma in which the needs of the chief actor conflict with the needs of another or other characters in the story. In two of the stories the main actors are adults. The reading of each story is accompanied by two illustrations which depict events in the story. Each child is shown the illustrations at the same place during the reading of the story. The stories were repeated when necessary to ensure that the child fully understood them. The sex of the chief character in each story was matched with that of each child in stories 1, 3 and 4 and the appropriate gender illustrations were also presented. In story No. 2 gender was not mentioned and therefore sex-matching was not necessary. The order of the stories was reversed with each child so that approximately 50% of the boys and 50% of the girls started with story No. 1 and story No. 4 respectively. The two questions concerning the choice of action of the main story character(s) and the reason for the proposed action were then asked. The

children's responses were tape-recorded at the time and later transcribed.

When all the research data had been obtained each individual child's reason for his (her) choice of action in the four stories was then classified under one of the following moral categories. (See 6.4 for entire experimental procedure). A score was then calculated.

6.2.1 Moral Reasoning Categories

These were derived directly from the study of Eisenberg-Berg and Hand (1979)

(i) Pragmatic reasoning

The child responds to the main actor's dilemma by deciding to follow a cause of action which is justified for practical non-moral reasons. The child focusses on factors which do not relate to the needs of any of the characters in the story.

Example - In story No.1

Subject No. 7 says that the story character must run home to fetch the parents because "he met the boy on the way."

(ii) Authority and punishment

The child unquestionably accepts and defers to authority and power. The child justifies his course of action through or the physical consequences: either "badness" or "goodness". Fear generates this value and avoidance of punishment is valued in its own right.

Example - In story No. 2

Subject No. 27 said that the hungry farmers can buy some more food because "my mommy does that".

(iii) Hedonism

The child's decision to follow a course of action is now determined by the pleasant consequences that the child will gain for himself.

Example -In Story No. 1

Subject No. 32 says that she must go to the party otherwise "she will miss the nice things, the cakes, cookies, and nice games". Right actions and behavior are those which satisfy the child or others with whom he closely identifies. A marketplace approach to relationships also exists with elements of fairness, equal sharing and reciprocity. If someone hits you, or others close to you,- you hit them back .

In story No. 3 subject No. 24 said that "Jean must hit Barbara because Barbara is hitting her friend".

(iv) Needs-oriented.

The child now considers the need of others. The child justifies her actions by relating to the needs of others. The needs may be both physiological or psychological. He is able to put himself into the place of another to take the others perspective or role.

Example - In Story No. 4

Subject No. 10 said that a good swimmer should help the children "because they need to be swimmers, what if they drowned?, they have to be swimmers".

The speaker has taken the role of the children that were unable to swim and is considering their plight.

(v) Approval oriented.

The child's actions now are determined by the desire to win the approval and acceptance of others. Authority figures have shown him that if he is kind and helpful to others he will experience approval and its accompanying "good feelings". Psychological

pleasure is now important to the child.

No responses were classified in this category.

(vi) Stereotyped orientation.

The child justifies a particular cause of action by stereotyped conceptions of good and bad behavior and/or persons.

Example - In Story No. 2

Subject No. 10 said that the poor hungry farmers should be helped by the other ones growing more food "so as to be kind and helpful".

(vii) Mutual Benefit

The child is now able to consider both the main actor and the recipient so that both may gain benefit. The child is now aware that he is an individual, equal to others. He knows that he belongs to a group and this improves his feelings of self-worth. He will also receive approval from others if he does his share.

Example - In Story No. 1

Subject No. 15 said that the main story character should take the boy who had fallen down "to his parents and then go to the party because he won't miss the whole party". The child gains approval

for himself, the injured boy is attended to and he is still able to go to the party later. He has decided to act thus for both of their mutual benefit.

(viii) Non classifiable

Responses which did not fall into any of the abovementioned categories.

Example - "Because, -because, -because"., were classified thus.

Scoring Procedure

The abovementioned categories were assigned scores as follows:

Pragmatism.	= 1
Authority and punishment	= 2
Hedonism	= 3
Needs-orientation	= 4
Approval Orientation	= 5
Stereotyped	= 6
Mutual Benefit	= 7
Non-classifiable	= 0

Each child was assigned scores indicating the frequency with which each type of reasoning was used in each of the four stories. A mean of moral reasoning (M.M.R.) was then calculated.

$$\frac{\text{Sum of actual category scores}}{\text{Sum of frequencies of story response}} = \text{M.M.R}$$

A few children were unable to give reasons for their course of action on 1 or more of the 4 stories. These were categorized as "non-classifiable". The formula reflected the lack of appropriate response in the sum of the stories.

Example -

Story No. 1 - Hedonism	= 3
Story No. 2 - Needs oriented	= 4
Story No. 3 - Hedonism	= 3
Story No. 4 - Non-classifiable	= 0
M.M.R.	$= \frac{10}{3} = 3{,}33$

The subject is not penalized for a non-classifiable response in terms of an already developed stage of moral reasoning as indicated by his responses to the other stories.

6.2.2 Prosocial Behavior

A Likert-type rating scale (Appendix B) was constructed to measure dimensions of prosocial behavior to be completed by the two teachers.

For question No. 1 and No. 2

Yarrow and Waxler (1976) state that variations may exist between the two possibly beacause of a perceived omniscence of the adult by the child and therefore fewer incidences of teacher-peer prosocial behavior than peer - peer prosocial behavior.

Question No. 3 and No. 4

Damon (1977) states that a young child may well be severe with personal characters in a story but at the same time be sympathetic and understanding of circumstances which affect real life moral issues of himself and his friends. It is in the child's self interest and also much easier to consider intentions which excuse his own faults and misdeeds than hypothetical story problems. A lower level of moral judgment may be used in the child's self interest, because these levels tend to be more egocentric and self-serving.

Scoring Procedure

Prosocial behavior rating was calculated thus.

Strength of actual response = Eg $\frac{12}{20}$ =,60

Maximum possible strength of response

The two categories of questions were decided upon in order to differentiate for the above stated reasons.

6.2.3 Social Maturity

It was decided to use the Vineland Social Maturity scale to see whether relationships exist between the social development of the child and his moral development. (Appendix C) The scale was developed at the training school in New Jersey, United States of America over a period of 20 years and has been widely used. Items on the scale represent a general growth in social development and progressive maturation in the areas of self-help, self-direction, locomotion, occupation, communication and social relationships. The items are arranged in order of normal average life progression and therefore also in the direction of increasing difficulty. The scale thus provides an outline of increasing social competence for each individual.

The experimenter interviewed one parent from each family. In all cases it was the mother. Some were interviewed on the school premises and other were interviewed in their homes at their convenience. The school register was consulted for details of general social status, occupation of parents, handicaps of children (if any) and number of siblings (if any). This was done to avoid a rather formal presentation of questions and answers. The interview was posed in the manner of a general informative discussion so as to develop a feeling of trust and allay the parents apprehension during the interview. This encourages a more spontaneous discussion and also more information. At the same time though, the parent's responses were discretely noted in the appropriate categories.

It was felt that this scale avoided the subjectivity of the interview criticized by some sources (Altman 1958) and at the same time provided detailed facts of the child's actual performance.

Items were questioned in terms of "<u>does</u> he usually do this"?, not "<u>can</u> he do this"?. This is to determine the extent to which performance of an item actually occurs and the degree of acomplishment achieved by the child. It may also be necessary to find out how long the child has

actually been doing this and also if he still does it.

Scoring procedure

The scoring is as follows:

(a) itmes are scored "plus" when it is clear that the child can and does the action spontaneously: or if it is no longer performed because it has been replaced by a more advanced type of behavior. It carries full credit.

Example: - Question No. 12. "Does your child move about on the floor" (that is by crawling). The pre-primary child is now running and walking.

(b) Items are scored "plus F" if special restraints are imposed by the parents or there is a lack of opportunity to perform which he previously did perform. Full credit.

Example: - Question No. 61. "Does your child go to school unattended?". A ruling of the University Pre-Primary School is that all children are to be accompanied to and from school, even if they live round the corner.

(c) Items are scored "plus NO" (no opportunity) if there are actions which the child could perform or learn how to perform quickly if permitted, but because of particular parental, scholastic, or enviornmental restraint he does perform.

Example: - Question No. 38. "Does your child eat with a fork?". A child who used to eat with a fork slowly now must use a spoon because the mother does not have the time to wait for the child to finish eating with the fork. These items carry full credit in the continuous plus scores but only ½ credit in a mixed plus and minus lot of scores.

(d) Items are scored "plus-" for actions which are emerging, these actions are occasionally performed but not always. They carry ½ credit in the final score.

(e) Items are scored "minus" when the child has not yet succeeded in performing these actions, or rarely and possibly under pressure.

A basal score of continuous plusses is obtained and

the additional plusses and ½ plusses are summed to that total. The total score is converted to an age score. A social quotient is calculated. (S.A.÷L.A.)x100.

It should be noted however that as this is an American scale the scoring is rather high in terms of the possible social advancement of the American child of the same age.

6.2.4 Family Functioning

To determine whether a relationship existed between family functioning and the early development of moral reasoning it was decided to use the Family Assessment Device (F.A.D.) questionnaire. (Appendix D). It evolved from the McMaster Model of Family Functioning and is based on the systems approach towards the family unit incorporating several dimensions whereby the family can be evaluated.

The F.A.D. developed from the previous work of Epstein, Segal and Rakoff 1962; Westley and Epstein 1969 (Epstein, and Bishop 1983) in the field of family therapy and family functioning. They found that family functioning related more to transactional and

systematic properties in the family system rather than in the personal characteristics of each family member. It resulted in the construction of the F.A.D.

The McMaster Model of Family Functioning is a clinically oriented conceptualization of families which describes the intrafamilial transactions and the structural and organizational properties of the family system. The F.A.D. is a screening instrument and use of this questionnaire does not preclude the use of other measuring instruments. However for the purpose of this study it is deemed sufficient for the collection of information of family functioning as it incorporates several dimensions upon which the family may be evaluated.

There are seven dimensions of family functioning; problem solving, which refers to the ability of the family to resolve problems satisfactorily in a way that does not disrupt the functional capacity of the family; communication, which refers to the processes whereby each family member exchanges information. It refers particularly to the degree of clarity of the content and the extent to which persons speak directly to the intended recipient of that communication. A third dimension is roles; behavior patterns within the family are examined including the manner in which individual members cope with particular tasks and functions: for example, the provision of resources, nurturance and

support, the maintenance of the family system supporting personal development and the provision of adult sexual gratification. This dimension also assess the degree of responsibility in fullfillment of their family roles. The fourth dimension is affective responsiveness which is concerned with the extent to which each member expresses the appropriate emotion in varying circumstances. Affective involvement is the fifth dimension and this concerns the extent to which members in the family are interested in and value the other family member's interests. The sixth dimension is behavior control which looks at the ways in which the family expresses and maintains standards of different types of behavior in the family. It also evaluates the different patterns of control (flexible, rigid, laissezfaire and chaotic) applicable to different types of situations. Finally general functioning; which considers the overall degree of healthy or unhealthy functioning of the family.

The seven scales which make up the F.A.D. are intercorrolated which conflicts with traditional psychometric practice which proposes independence between subscales. But from a general systems theory approach which evaluates different areas of functioning it is expected that different aspects of family functioning will depend upon each other; for example, problems with communication may also be associated with a lack of affective responsiveness. The correlation between six dimensions (excluding

general functioning) ranged from ,4 to ,6. When general functioning is held constant partial correlations are near to 0 (zero); the variance therefore shared between the dimensions is mostly accounted for by the variance that each dimension shares with the general functioning subscale.

Validity is suggested by a comparison of F.A.D.'s of clinically presenting families (N=98) with non-clinically presenting families (N=218) in a discriminant analysis. 64% of the clinical group and 67% of the non-clinical group were predicted correctly. Means and standard deviations of the non-clinical group were lower (that is more healthy) in all instances than the clinical group. Furthermore future studies are planned to investigate the validity of the F.A.D. and determine other psychometric properties.

There are 53 items in the questionnaire (APPENDIX D) which consists of statements a person could make about his or her family, for example; problem solving "we usually act on our decisions regarding problems". The questionnaire may be completed by all family members. For the purposes of this study the questionnaire was completed by each parent independently of the other in each family. The parent rated his/her agreement or disagreement with the statement by choosing one of four responses; strongly agree, agree, disagree, strongly disagree.

Completion of this questionnaire usually takes 15 to 20 minutes.

Scoring procedure

All responses are coded as follows :

Strongly agree	= 1
Agree	= 2
Disagree	= 3
Strongly disagree	= 4

Some of the items describe healthy functioning and others describe unhealthy functioning. These are marked accordingly in the scoring sheet. The scores of those items which describe unhealthy functioning are transformed by subtracting them from 5. This inverts the response scales on the healthy items and therefore equates a "strongly agree" response to an unhealthy item with a "strongly disagree" response to the healthy item and therefore 1 = healthy response and 4 = unhealthy response.

The mean is obtained of each set of scale scores giving 7 scale scores within the range 1,00 (healthy) to 4,00 (unhealthy).

6.3.1 Experimental procedure

At this stage it seems neccesary to present a brief

outline of the total experimental procedure that was adopted.

A talk on early moral development together with an outline of the research to be undertaken was given at a PTA meeting of the University Pre-Primary School.

1. The experimenter visited the school on a daily basis in the capacity of an observer for approximately 6 weeks so that the children would become used to seeing her on the premises. This was done so that the children would feel more at ease when the measuring of moral reasoning began.

2. The Family Assessment Device questionnaires were handed to the parents for completion at home and were returned in a sealed envelope to the principal of the school who retained them until the end of the research program in December 1984.

3. The moral reasoning stories were administered to the children and responses were tape-recorded.

4. The prosocial behavior rating scales were handed to the principal and assistant teacher for completion. They were also retained by the principal in a sealed envelope until the end of the research program in December 1984.

5. The Vineland Maturity scale was then administered. One parent from each family, (the mother in all cases) was interviewed at her convenience either on the school premises or at home.

6. The children's responses to these stories were then categorized by the experimenter and an independent rater. (Table 7). At this stage both were blind to each childs protocol. A percentage agreement for categorization ws computed. Where differences existed in the classification of responses in the categories a discussion was held and consensus was reached.

7. In terms of this study it was essential that the experimenter remained blind to each subject's group membership of the Family Assessment Device and categorization of the Moral reasoning responses to the stories. At the end of the collec-

tion of data, the principal handed over the completed Family Assessment Device questionnaires and the Prosocial Behavior rating scales in their respective sealed envelopes to the experimenter at the end of the school-year on December 04, 1984.

C H A P T E R S E V E N

RESULTS AND INTERPRETATIONS

The next step was to determine the extent of any significant relationship between and amongst the variables of interest.

As the form of measurement of the variables was ordinal it was decided to calculate relationships using Spearman's non-parametric rank correlation. Median tables are utilized. (Siegel 1956).

It will be remembered that the General Systems approach was decided upon for examination of child rearing patterns. Therefore the scores of the

fathers' and mothers' F.A.D.s were first pooled in accordance with this perspective.

TABLE 2

Spearman's rank correlation between variables

	Par. FAD	V.S.M.	Moral R	Pros.B.R.
Par.FAD	1,00	-,03	,18	-,11
V.S.M.		1,00	,32**	,50**
Moral R.			1,00	,21*
Pro B.R.				1,00

p = ,10 (One-tail)

p* = ,10

p** = ,05

PAR. FAD = Parental F.A.D. (pooled scores)

V.S.M = Vineland Social Maturity Scale

Moral R = Moral reasoning

Pros: B.R. = Prosocial Behavior rating

As the area of prosocial moral reasoning is an area in which little research has been conducted particularly with the variables of family functioning social maturity and prosocial behavior, the ,10 level of significance was chosen as an indicator that certain lines of research may be pursued further.

Although there was a slight positive relationship between the parental F.A.D. and Moral R. scores it was not statistically significant (r_s = ,18). It appears that there is very little relationship between the child rearing pattern of the parents and the development of moral reasoning at this age level. This was unexpected particularly in the light of the results of Baumrind (1967) study on the child-rearing dimensions of control, maturity demands, clarity of communication and nurturance.

There was a statistically significant positive relationship between the V.S.M. and Moral R scores (r_s = ,32**) at the 5% level of significance. Pros B.R. has a slightly higher significant positive relationship with the V.S.M. (r_s = ,50**) at the 5% level of significance. It appears to support the argument that increased social competence facilitates prosocial behavior.

Showing the least positive relationship of significance was that between the Pros B.R. and Moral R scores (r_s = ,21*). Although in a positive direction the low correlation indicates only a slight relationship

between these variables However it is noted that the child's developing ability to recognise need for help and increasing knowledge about how to help are significant factors in behaving prosocially(Ladd, Langer and Stremmel 1983).

The parental F.A.D. correlates non-significantly in a negative direction with the Pros. B. R.(r_s = -,11). A very low non-significant correlation in a negative direction exists between the parental F.A.D. and V.S.M (r_s = -,03) indicating practically no relationship between these variables.

It was then decided to correlate the F.A.D.'s of the fathers and mothers separately with the V.S.M., Pros. B.R., and Moral R. scores to determine the relative contribution of either parent to each of these variables.

TABLE 3

Correlation Matrix of Fathers' and Mothers' F.A.D.'s

	F.FAD	M.FAD	V.S.M.	MORAL R	Pros B.R.
F.FAD	1,00	,45**	-,04	,05	-,12
M.FAD	-	1,00	-,01	,10	-,13
V.S.M.	-	-	1,00	,32**	,50**
Moral R	-	-	-	1,00	,21*
Pros BR	-	-	-		1,00

p = ,10 (One-tail)

p* = ,10

p** = ,05

F. F.A.D. = Fathers Family Assessment Device

M. F.A.D. = Mothers Family Assessment Device

There is a very low negative relationship between the F. F.A.D. and the V.S.M. (r_s = -,04). It is also non-significant. Between the M. F.A.D.

and the V.S.M. there is practically no relationship. It is in a negative direction (r_s = -,01) and is not significant. The correlation between the F. F.A.D. and Moral R. is low (r_s = ,05) and although it indicates a very slight positive relationship it is not significant. However the correlation between the M. F.A.D. and Moral R. although still very low (r_s = ,10) and non-significant does show a slightly higher relationship than that of the father's F.A.D.

Showing the highest relationship was that of the M. F.A.D. and Pros. B.R. (r_s = ,13) but correlating non-significantly and in a negative direction. The F. F.A.D. and Pros. B.R. relationship (r_s = -,12) was also a non-significant correlation and in a negative direction.

Relationships of the correlations between and among the V.S.M. Moral R and Pros B.R. have already been given.

An interesting observation is the moderate relationship between the F. F.A.D. and the M. F.A.D. (r_s = ,45). It is significant and in a positive direction. Although further analysis of this relationship is beyond the scope of this paper it does indicate an avenue for further research.

The data from the different dimensions of the fathers and mothers F.A.D.'s was then correlated with the Moral R. scores to determine further relationships.

TABLE 4

Spearman's rank correlations of the Parental F.A.D. Dimensions and Moral Reasoning Scores

	F.A.D. DIMENSIONS						
	Pro S.	Com.	Roles	Aff.R	Aff.I	Beh.C	Gen Fun
Fathers' r_s to Moral score	,02	,09	,10	-,17	,25**	,09	,05
Mothers' r_s to Moral score	,08	,01	,10	,20*	,15	,04	,06

p = ,10 (one-tail)

p* = ,10

p** = ,05

rs = Spearman's correlation

F.A.D. = Family Assessment Device

M.R. = Moral Reasoning Score

Pro S = Problem solving

Com = Communication

Roles = Roles

Aff I = Affective Involvement

Aff R = Affective Responsiveness

Beh C = Behavior Control

Gen F = General Functioning

There are two significant relationships. The highest correlation is that between the fathers' dimension of Aff.I and Moral R (r_s = ,25) at the 5% level of significance. Although it is a low correlation in itself it is significant and in a positive direction. Whereas the mothers' correlation of Aff. I. and Moral R. is less positive (r_s = ,15) and non-significant. The correlation between the mothers' dimension of Aff. R and Moral R is slightly lower (r_s = ,20) but it is significant and in a positive direction. This result was anticipated although a stronger relationship was expected. It supports findings indicating the importance of maternal warmth and contingent responsiveness (Sears et al 1957). Unexpected was the correlation of the fathers' dimension of Aff. R. and Moral R. (r_s = - ,17). Although it is non-significant it is in a negative direction albeit weakly.

There is a very low non-significant correlation between the mothers' dimension of Pro. S and Moral R. although in a positive direction (r_s = ,08) and almost no relationship between the father on this dimension and Moral R (r_s = ,02). It is in a positive direction but not significantly.

Positive correlations between the dimensions of Roles and Moral R, are equal for both the fathers and mothers (r_s = ,10) but again they are not significant.

The correlations on the dimension of Comm. and Moral R. for the fathers (r_s = ,09) and for the mothers (r_s = ,01) although in a positive

direction are non-significant. These very low correlations signify that there is little or no relationship between performances.

Further low correlations exist between Beh. C. and Moral R. for both the mothers (r_s = ,04) and the fathers (r_s = ,09). These relationships although positively correlated are again non-significant. Higher significant positive correlations were anticipated on this dimension because of the importance of behavior control in the childs' moral development as supported by findings (Hoffman 1970).

Non-significant relationships between Gen. F. and Moral R. for both fathers and mothers were almost equal (fathers' r_s = ,05: mothers' r_s = ,06). The relationships were in a positive direction but because of the low correlation indicate very little relationship between these dimensions.

A factor analysis of the scores of the dimensions of the F.A.D. of the mothers and fathers was then calculated. It yielded one factor; overall general functioning which confirms the authors' arguments that dimensions of family functioning will interact and intercorrelate. They conclude that there is no reason to assume that different dimensions can be totally independent of each other. (Epstein and Bishop 1981).

TABLE 5

Spearman Rank Correlations between Scores of the Dimensions of the F.A.D. of the Mothers and Fathers

FATHER

	Pro.S	Comm	Roles	Aff R	Aff I	Beh C	Gen F
Pro S	1,00	,68	,70	,47	,27	,68	,65
Comm	-	1,00	,46	,49	,51	,59	,73
Roles	-	-	1,00	,30	,47	,73	,65
Aff Re	-	-	-	1,00	,17**	,38	,69
Aff In	-	-	-	-	1,00	,55	,60
Beh C	-	-	-	-	-	1,00	,74
Gen F	-	-	-	-	-	-	1,00

p = ,05 (one-tail) **p = ,001

MOTHER

	Pro S	Comm	Roles	Aff R	Aff I	Beh C	Gen F
Pro S	1,00	,66	,63	,40	,46	,52	,65
Comm	-	1,00	,56	,51	,51	,50	,79
Roles	-	-	1,00	,56	,63	,58	,64
Aff Re	-	-	-	1,00	,46	,32	,66
Aff In	-	-	-	-	1,00	,56	,61
Beh C	-	-	-	-	-	1,00	,66
Gen F					-	-	1,00

p = ,05

Pro S = Problem solving
Comm = Communication
Roles = Roles
Aff R = Affective Responses
Aff I = Affective Involvement
Beh C = Behavior Control
Gen F = General Functioning

Moral Reasoning Categories

Additional Study

Prosocial moral reasoning is a little researched area. As this study is a partial repliction of that of Eisenberg-Berg and Hand (1979) relationships between the moral reasoning categories were then examined for comparative purposes.

Spearman's rank correlation was calculated between the moral reasoning categories of the children's responses.

As no responses were categorized within the approval-orientation category this was excluded from all further tables and figures.

TABLE 6

Correlation matrix of Moral Reasoning Categories

Category	Pragm	Auth & P	Hedon	Needs	Stereo	Mut.B
Prag.	1,00	,20	-,19	-,15	-,18	-,10
Auth & P	-	1,00	,06	-,15	-,16	-,02
Hedon	-	-	1,00	-,47*	-,28*	-,11
Needs O	-	-	-	1,00	-,02	-,14
Stereo	-	-	-	-	1,00	,03
Mut B	-	-	-	-	-	1,00

p = ,05 (Two-tail)

p* = ,001

Prag = Pragmatic

Auth & P = Authority and punishment

Hedon = Hedonistic

Needs O. = Needs orientation

Stereo = Stereotypic orientation

Mut B = Mutual benefit orientation

There are few significant relationships between the moral reasoning categories and correlations are low to moderate.

The Pragmatic category is non-significantly related to the Auth. & P category (r_s = ,20) in a positive direction but it is a non-significant correlation. Pragmatic correlates non-significantly in a negative direction with the Hedon. category (r_s = -,19). Low non-significant correlations exist between the categories of Pragmatic and Needs O. (r_s = -,15), and Prgmatic and Stereo. (r_s = -,18). The direction of both these correlations is negative. The negative correlation between Pragmatic and Mut. B categories is lower (r_s = -,10) and it is non-significant indicating little relationship between these categories.

The very low non-significant correlations between Hedon. and Auth. & P. (r_s = ,06) are in a positive direction whilst the low non-significant relationship between Auth. & P. and Mut. B. is (r_s = -,02) in a negative direction. Further non-significant negative relationships exist between the categories of Auth. & P. and Need O. (r_s = -,15) and between Auth. & P. and Stereo (r_s = -,16)

The highest correlation is between the Hedon. and Needs O. categories (r_s = -,47). It is significant and indicates a moderate relationship in a negative direction at the 1% level of significance. A lower correlation although significant exists between Hedon. and Stereo. categories (r_s = -,28) and also in a negative direction. These two

significant correlations support the findings of Eisenberg-Berg and Hand (1970). The use of the Needs O. category, a developmentally more mature reasoning suggests a developing responsiveness to others needs and an increase in "other-orientation". The early emergence of this type of reasoning has been explained as due to the exposure by the child to both sides of a prosocial conflict. He has been a recipient of help and a giver of help from the early stages of socialization. (Eisenberg 1982)

Practically no relationship is indicated in the non-significant very low correlation between the Needs O. and Stereo. categories (r_s = -,02) in a negative direction and again there is little relationship between Stereo and Mut. B. (r_s = ,03). Although it is in a positive direction it is not significant .

The Mut. B. and Hedon relationship is slightly stronger with a non-significant correlation (r_s = -,11) but in a negative direction. A slightly higher negative correlation although non-significant exists between Mut. B and Needs O (r_s = -,14).

Although the negative relationships were anticipated between some of the categories the correlations were expected to indicate stronger relationships.

TABLE 7

Percentage Agreement between Experimenter and Independent Coder of the Categorized Moral Responses

Category	N	% Agreement
Pragmatic	62	35
Authority	6	33
Hedonism	47	45
Needs-orientation	51	44
Stereotypic	8	75
Approval orient	0	100
Mutual Benefit	12	50
Non-classifiable	19	75

Mean%Rating of Agreement = 57%

The percentage agreement between the experimenter and independent coder was from 33% for the category of Authority and Punishment to 100% agreement for the category of Approval orientation for which there were no responses.

There is a considerable range of agreement but note should be taken of

the possible lack of involvement of the coder in this little researched area; it may be considered a contributory factor and for the moderate mean % rating of agreement. Under these circumstances it is deemed adequate.

The percentage of responses in the various categories by the children was then examined to determine whether story content elicited use of particular levels of reasoning.

TABLE (8)

% Responses of Pragmatism

Story No.	Total %	Boys %	Girls %
1	27	57	43
2	31	75	25
3	11	67	33
4	31	75	25
	100		

Responses are evenly spread amongst the stories with the exception of story No. 3; it accounts for only 11%. Of that total 67% of the responses were given by the boys and 33% by the girls. Story No. 1 elicited 27% of the total responses. Of that percentage 57% applied to boys: noteworthy is that the boys' use of pragmatic reasoning is much greater than that of the girls. The sex differential may point towards

use of higher levels of reasoning by the girls and an orientation towards concern for others. 43% applied to girls, stories No's 2 and 4 elicited 31% of the total responses. In each case the identical higher percentage (75%) was applicable to the boys and the identical lower percentage (25%) applied to the girls' responses.

TABLE 9

% Responses of Authority and Punishment

Story No	Total %	Boys %	Girls %
1	33	100	0
2	0	0	0
3	67	50	50
4	0	0	0
	100		

Responses in the authority and punishment category were applicable only to Story No. 1 = 33% and Story No. 3 = 67%.

Of the responses to Story No. 1 only the boys gave authority and

punishment-type responses. In Story No. 3 the responses were equally divided between boys and girls.

It is speculated that the situations of stories No. 1 (the child falls and hurts himself) and No. 3 (friends fighting in a sandpit) are familiar to pre-schoolers.The child recognizes his subservient position and the fundamental importance of authority at this age. His relations with adults are governed by authority and the successful calls for help on similar occasions may actually stimulate this response (Damon 1977).

TABLE 10

% Responses of Hedonism

Story No	Total %	Boys %	Girls %
1	32	62	38
2	7	67	33
3	37	73	27
4	24	50	50
	100		

The highest No of responses applied to Story No. 3; 37%. The boys percentage of responses was also the highest. - 73% and the girls responses were the lowest - 27%. Story No. 1. elicited 32% of responses and the boys percentage was 62% whilst the girls responses were 38%.

The total percentage for Story No. 4 was 24% and the responses were divided equally between the girls and boys. Story No. 2 elicited the least number of total responses - that of 7%, and 67% of those responses were applicable to boys and 33% to girls. It is noted that boys

responses in this moral reasoning category are greater in number than the girls', for stories No's 1 2 and 3.

The cost-benefit ratio to the boys may be such that the proposed story "solutions" stimulate the verbalization of hedonistic reasoning. Children tend to justify a decision not to help needy others by use of this type of reasoning.

TABLE 11

% Responses of Needs-Oriented

Story No	Total %	Boys%	Girls%
1	12	80	20
2	42	50	50
3	21	44	66
4	25	27	73
	100		

The highest number of responses (42%) applied to Story No. 2 and they were equally divided between boys and girls. Story No. 4 elicited 25% of the total responses: the girls responses elicited 73% and the boys 27% of that total. Story No. 3 evoked 21% of the responses and the girls responses were again higher for that story (66%) that the boys (44%) responses. Story No. 1 evoked the least percentage of responses (12%) with the boys contributing 80% and the girls 20% of that total.

Stories No's 3 and 4 elicited more needs oriented responses from the girls. Underwood and Moore 1982 (Eisenberg 1982) propose that a sex difference favoring females is consistent with a tendency towards nurturance and concern for others. This is further supported by Baumrind (1979) who noted that young girls of 4 and 9 years of age are more prosocial than boys of the same age. The greater number of responses of boys to Story No. 1 in this category are unclear. It will be discussed in Chapter 8.

TABLE 12

% Responses of Stereotype orientation

Story No	Total%	Boys%	Girls%
1	28	50	50
2	28	100	0
3	16	0	100
4	28	100	0
	100		

Stories No's 1, 2 and 4 elicited 28% of the total No. of responses, whereas in Story No 1 the responses were equally divided between boys and girls. Stories No's 2 and 4 elicited 100% of responses from the boys. There were no responses of this category from the girls in either of these stories. Story No. 3 was responsible for 16% of the total responses, and 100% were evoked only by the girls. Boys gave no

responses to this story within this category.

The boys' use of stereotypic reasoning is greater overall than that of the girls.

TABLE 13

% Responses of Mutual Benefit Orientation

Story No	Total %	Boys%	Girls%
1	11	0	100
2	56	20	80
3	0	0	0
4	33	67	33
	100		

There were no responses categorized to Story No. 3. The total responses to Story No. 2 (56%) were mainly from the girls (80%) with 20% from the

boys. Whereas the 11% total responses of Story No. 1 was elicited only from the girls (100). The total responses of Story No. 4 was 33%; the boys' responses accounted for 67% and the girls' responses for only 33%. The total lack of responses to Story No.3 of this category is unclear. Eisenberg (1982) has stated that familiarity of the situation is an influence on the use of a higher mode of reasoning. The "sandpit" situation is presumed to be familiar to pre-primary school children.

The responses of the children were then examined to see whether they made use of a dominant mode of moral reasoning in a prosocial context.(See Appendix E) It will be noted that Kohlberg (1969) has stated that a child's moral reasoning is dominant, for one mode of response with an occasional use of a stage (or category) either one stage (category) above or below. (Dominant = 50% or more of the subjects' responses must fall into one of the specified levels. The alternative categorizations (if any) in fulfillment of Kohlberg's theory of moral development should represent either one stage above or below the dominant stage). Kohlberg's statement is applicable to behavior in a prohibition-oriented context.

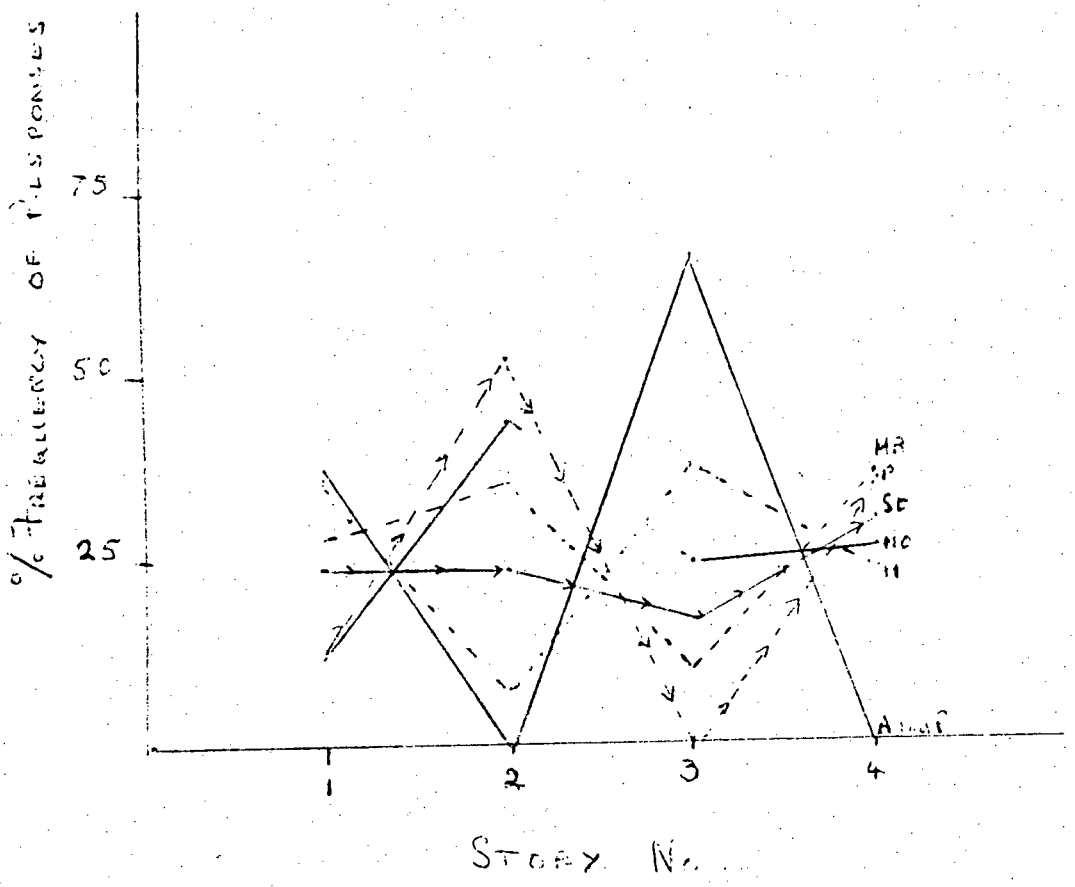

FIGURE 1

Graph indicating % of story responses for each category

A & P	=	Authority and Punishment
P	=	Pragmatic
H	=	Hedonic Orientation
N.O.	=	Needs Orientation
S.T.	=	Stereotype Orientation
M.B.	=	Mutual Benefit

Story number 3 elicited the greatest variability of category responses followed by Stories numbers 2, 4 and 1.

TABLE 14

Percentage Table of Usage of

Dominant Modal Response with Other Categories

Categ. Res	Total %	Boys	Girls
Dom. R. + 1 Cat. A/B	31	34	66
Dom R+ 2 Cat. A/B	18	57	43
Dom R+ use of a 3rd	23	78	22
Vary levels	28	55	45

Dom R+ 1Cat A/B = Dominant Response and use of 1 category above or below

Dom R+ 2Cat A/B = Dominant Response and use of 2 categories above or below

Dom R+ use of a 3rd Cat. with 2st A/B = Dominant Response and use of a 3rd category of 2 stages above or below

Vary levels = Varing levels of categories : no dominant modal response

Those children who made use of a dominant modal response (i.e. 50% or more) and one other category either a stage above or below totalled 31% and of that percentage 66% were girls and 34% were boys. Whereas those children who made use of a dominant mode of reasoning and also additional categories of either two above or below their dominant response totalled 18%. The sex differential was less, the boys totalled 57% and the girls accounted for 43%. The children who used a dominant mode of reasoning and one other category only, but either two stages above or below totalled 23%; of that percentage 78% was contributed by the boys and the remaining 22% by the girls. Those children whose reasoning indicated no dominant mode of response, (that is they made use of various categories for each of the 4 stories) totalled 28%; and of that percentage 55% was accounted for by the boys and 45% by the girls.

Kohlberg's statement concerning the dominant modal response and use of one other stage of moral reasoning appears to be partially supported by 31% of this sample but more applicable to girls (66%) than to boys (34%) of this age-group.

The percentage of the dominance of the modes of moral reasoning was compared with the median S Qs of the V S M.

TABLE 15

Comparative Table of % Dominant Mode of Reasoning

And S Q of 100 and Below and Above 100

Category	% of dominant Moral R with SQ of 100 & below	% of dominant Moral R with SQ above 100
Pragmatic	19	0
Hedon	19	32
Needs O.	25	32
Stereo	6	4
Mut. B.	0	9
Mixed Cats	31	23

Mixed Cat. = Mixed categories - (where there is no dominant mode of reasoning.

There has been an increase in the dominance of modes of reasoning in

those subjects with an S Q "above 100" compared with those subjects whose S Q is "100 and below" in most categories. The two exceptions are, Pragmatic reasoning (non-moral) which is not verbalized at all by those subjects with an S Q "above 100" compared with 19% with an S Q of "100 and below": and Stereotypic reasoning which has decreased in dominance from 6% (S Q = 100 and below) to 4% (S Q = above 100). Those subjects who made use of varying categories in their responses decreased from 31% (S Q = 100 and below) to 23% (S Q = above 100). The increases in the usage of dominant modes of reasoning were in those categories of Hedon where there was a marked increase from 19% (S Q = 100 below) to 32% (S Q = above 100): Needs O. with a smaller increase from 25% (S Q = 100 and below) to 32% (S Q = above 100) and Mut B. where there was no use of this category in those subjects with an S Q of "100 and below" to a 9% usage by those with an S Q of "above 100".

The medians of the social quotients of the V S M were examined then to see what relationships if any, exist between the social development of the subjects and the scores of the Moral R.

TABLE 16

Comparative Medians of Moral R.

And SQ's of the V.S.M.

	SQs of 100 and below	SQs above 100
Median Moral R	2,63	3,13

It is noted that the median Moral R. score for those subjects whose S Q is 100 and below is 2,63; the girls account for 19% and the boys account for 81%. Whereas those subjects whose S Q is above 100 have a higher median Moral R. of 3,13; the girls account for 41% and the boys account for 59%.

Those children who have a higher level of social maturity also verbalize more mature levels of moral reasoning than those children with a lower level of social maturity.

The medians of the Pros. B.R. were then compared with the dominant response modes to determine whether the use of a higher level of reasoning of Moral R is related to an increase of Pros. B.R.

TABLE 17

Comparative Medians of Dom. Mode

Of Response and Pros. B.R.

Categ. of Dom. Mod of R	Pros. B.R. Med Qs 1 &2	Pros. B.R. Med Qs 3 & 4	Pros. B.R. Med Gr Med	Gr. Medians of Pros B.R Qs 1 & 2	Gr. Medians of Pros B.R Qs 3 & 4	Gr. Medians of Pros B.R Gr Med
Pragmatic	,60	,60	,60			
Hedon	,70	,70	,70	,65	,60	,60
Needs O.	,80	,80	,80			
Stereo	,60	,60	,55			
Mut B	,65	,60	,65			

Categ. of
Dom. Mod. of R = Category of dominant mode of response of Subject

Qs 1 & 2; Qs 3 & 4 = Questions 1 & 2; 3 & 4

The dominant responses of the categories of Hedon and Needs O. and Mut B are associated with higher medians of Pros b.r. (,70 and ,80) than other categories.

These medians are also higher than the grand medians of Pros. b.r. (,65; ,60; ,60). The Pragmatic and Stereotypic medians almost equal the grand medians (,60; ,65).The category of Mut. B has a slightly higher grand median than the Stereotypic category and is also above the grand median for Pros. b.r.

Those children who verbalize hedonistic, needs oriented and mutual benefit types of moral reasoning are more prosocial in their behavior than the median. Those children who utilize stereotypic moral reasoning are slightly below the median in prosocial behavior.

The medians of the parental F A D s were then examined and compared with the medians of the children's Moral R. score. It will be remembered that the F A D indicates a spectrum of healthy to unhealthy functioning (1,0; 2,0; 3,0; 4,0). Although a non-significant positive relation was indicated with the Spearman correlation (r_s = ,05 for the F F A D and Moral R.; and r_s = ,10 for the M F A D and Moral R. p = ,10) it was decided to investigate the medians of the parental F A D s in the ranges as shown below in the table with the Moral R. scores.

TABLE 18

COMPARATIVE MEDIANS OF THE FAD'S AND MORAL R.

	F & M 1,00 - 1,99	F & M 2,00 - 2,99	F = 1,00 - 1,99 M = 2,00 - 2,99	F = 2,00 - 2,99 M = 1,00 - 1,99
Moral R Med	3,00	3,25	3,25	2,27

F = Father

M = Mother

The highest Moral R median is associated with the parental range of 2,00 - 2,99 and also the range in which the father is in the 2,00 - 2,99 and

the mother is in the 1,00 - 1,99 range. The Moral R. med = 3,25). The range in which both parents are in the 1,00 - 1,99 is associated with a lower median (3,00). The lowest Moral R. median (2,27) is associated with those parents of differing ranges: the fathers' score 2,00 - 2,99 and the mothers' score 1,00 - 1,99.

C H A P T E R E I G H T

DISCUSSION AND CONCLUSIONS

8.1 Hypothesis No. 1

It was hypothesized that a significant positive relationship would exist between scores on the Moral R. and scores (i.e. extent of healthy functioning) on the F.A.D. This hypothesis was not supported (Table 2). Although a weak positive relationship between the parental F.A.D. and Moral R. scores was found it was not statistically significant (r_s = .18p = ,10).The fathers' and mothers' scores on the F.A.D.s were then correlated separately with the Moral R. scores (Table 3). A very weak positive

non-significant correlation was found between the fathers' F.A.D. score and Moral R. (r_s = ,05) indicating practically no relationship between the score. The relationship between the mothers' F.A.D. scores and Moral R. although very weak is slightly higher (r_s = ,10) in a positive direction but not statistically significant. These results were unanticipated. The lack of statistical significance is unclear.

Correlations of the F.A.D. and Moral R. were then taken one step further. Each dimension of the mothers' and fathers' scores on the F.A.D. was correlated with the Moral R. scores (Table 4).

The only significant positive relationships were those of the dimension of affective involvement of the fathers and Moral R. scores (r_s = ,25 p =(,10) and affective responsiveness of the mothers with Moral R. scores (r_s = ,20) at the 10% level of significance.

Noteworthy is the higher significant positive correlation of the father's affective involvement with the child and Moral R. scores. This finding supports that of Biller (1974) who interprets the

involvement of the father as essential in the development of an internal locus of control for the growth of conscience. A lack of internal locus of control leads to difficulties in self-control and subsequent inhibited development of reflectivity.

The mothers' F A D scores on this dimension are lower (mothers' r_s = ,15 compared with fathers' r_s = ,25) and although it did not attain statistical significance it is in a positive direction.

Epstein and Bishop (1981) define affective involvement as the extent of interest and value which family members invest in each other. Affective involvement of an empathic nature is viewed by the authors as the most effective. The positive significant relationship between the fathers' score and Moral R. (r_s = ,25) indicates that a healthy concern exists between father and child in which neither moods nor actions are inherently wrong. It is rather the responses which are elicited which teach the child how they are regarded. These correlations support the father's affective involvement with the child rather than the mother. The authors of the F.A.D. affirm that empathic involvement requires demonstration of an affective concern for others. The child's ability to take the role of others is constantly reinforced within this relationship. This ability is considered by many researchers (Hoffman 1975) to be significant in the development of prosocial reasoning. An individual's affective perspective-taking empathy is

a function of specific circumstances. The quality of the emotion determines whether or not he takes another's perspective, the degree to which he does so and the extent to which the individual will enter the internal world of others, experiencing role-taking leading to altruistic behavior. Affective role-taking is defined as "the ability to assess another person's emotional state" (Kurdek and Rodgon 1975).

It is cautiously proposed that the special nurturant care-giving relationship between mother and child may even work against the healthiest form of affective involvement of a "Yiddish-mama" type relationship. The median of the mothers' dimension is slightly higher (2,0) than the fathers' median (1,86 see Appendix H). The father's relationship with the child is therefore slightly "healthier" than with the mother in this group of children.

The remaining significant relationship is between the mothers' dimension of affective responsiveness and Moral R. Scores (Table 4). Although it is a fairly weak relationship it is in a positive direction. Epstein and Bishop (1982) define affective responsiveness as the ability to respond to stimuli with the appropriate degree and quality of emotion. The dimension is further differentiated into welfare feelings such as love tenderness, happiness and joy; and emergency feelings of fear,

anger, sadness, disappointment and depression. It is considered that for individuals to feel able to express a wide range of emotions openly presupposes an underlying dimension of acceptance. The responsive parent is a constant source of reinforcement to the child and in that way is more effective as a teacher in the internalization process of moral development than a non-responsive parent. The responsive mother makes use of the practice of induction. The mother is traditionally the major caregiver of the child and therefore learns cue responsiveness as a function of her being with the child. This supports Hoffman and Saltzstein's(1967) statement that the mother carries a more important role in moral development than fathers. Mothers seek information concerning the child's feelings and the child's interpretations of his transgressions before punishing the child whereas fathers tend to punish immediately without discussion. Sears et al (1957) affirm the significance of this dimension in the formation of conscience. Hurley (1965) supports its significance in the encouragement of the child interacting freely and fully with his environment. Reasons for the negative relationship (r_s = -,17) of the fathers on this dimension and Moral R. scores are not clear. Socially imposed working hours of the father restrict times of interaction. Hoffman (1963) indicates increasing importance of the father with age in a child's moral development.

Low non-significant positive correlations on the dimension of

problem-solving for the fathers, r_s = ,02 and mothers, r_s = ,08 although positive indicate practically no relationship between these two sets of scores. Although the authors consider this dimension significant in effective family functioning, it does not appear to facilitate prosocial moral reasoning in this study.

A weak relationship is found on the dimension of communication and MOral R. scores. An extremely low correlation for the mother (r_s = ,01) and a slightly higher correlation for the father (r_s = ,09). Although a positive relationship, it is not statistically significant.

But communication is considered to be psychologically significant. Epstein and Bishop (1981) define it as the way in which information is transmitted within a family whether clear, direct, masked or indirect. From a general systems theory approach Satir's (1967) basic assumption states that a degree of psychological maturity underlies the learning of effective communication thus avoiding "double-bind" messages. Effective communication is considered to be a prerequisite in the development of morality. The use of induction presupposes clear and direct communication, (Hoffman 1970) as a prerequisite for moral internalization. Youniss (1982) considers co-operative communication accounts for the construction of principles and mutual respect leading to morality.

It is considered that the meaning of communication in this measuring instrument is in the widest possible sense. Piaget (1932) and Kohlberg (1969) view morality as selfconstructed. The child's interpretations of his own experiences form the basis of his moral code. In contrast, socially constructed knowledge is received from other people and it is felt that this dimension is less applicable therefore to emerging morality of the age-group of this paper than to socially-constructed knowledge.

Correlations between moral reasoning and the dimension of behavior control for both the father (,09) and the mother (,04) are very weak although positive. They did not reach statistical significance. The authors of the questionnaire identify four styles of behavior control namely; rigid, flexible, laissez-faire and chaotic. Similarities are noted between the dimensions of authoritarianism, authoritativeness and permissiveness of child rearing (Baumrind 1971). On close examination it is apparent that the styles of discipline considered by researchers (Hoffman 1970:) as significant in moral internalization are not explored in this measuring instrument. This paper treats behavior control in the traditional narrow interpretations of love-orientation, positive or negative and power assertion.

The relationship between moral reasoning and the dimension of

roles for both the father and the mother was equal. (,10). Although weak it is in a positive direction but not statistically significant. This dimension is defined as the patterns of behavior by which individuals fulfill family requirements. They consist of instrumental areas, namely; the provision of resources, clothing, life skills development, and affective areas; examples of which are sexual gratification and provision of nurturance. It is possible that these areas are inappropriate to moral reasoning. Although it is accepted that transactional patterns of the family system do influence the behavioral styles of all the family members, it is cautiously proposed that stronger relationships may be elicited with the study of moral reasoning in an older age group.

The relationship between moral reasoning and general functioning of the father and the mother was very weak indicating practically no relationship between these variables for either parent (father rs = ,05: mother r_s = ,06). Although the correlation was positive it was not statistically significant. This dimension assesses the extent of the health/pathology of the family system. The reasons for the non-significant/relationship are not entirely clear as it was felt that this dimension would be an important factor in the child's interpretation of his own social experiences in the development of moral reasoning.

8.2 Hypothesis No. 2

It was also hypothesized that a significant positive relationship would be found between high scores on the V.S.M. (social maturity) and high scores on Moral R. Findings supported this hypothesis (Table 2). Those children who are socially more competent also utilize higher levels of moral reasoning.

Those children whose S.Q. was "100 and below" were compared with those children whose S.Q.'s were "above 100". (Table 15). They were examined in terms of the dominant mode of moral reasoning.

For those children with an S.Q. of "100 and below" 19% of the responses were categorized in the Pragmatic dominant mode, with a median Moral R. of 2,63 (Table 16). Those children with an S.Q. "above 100" did not verbalize any dominant Pragmatic modal responses. The median Moral R. of this group is also higher (Table 15). The boys accounted for 59% and girls accounted for 41%. But of those children with an S.Q. of "100 and below" only 19% were girls; the remaining 81% were boys. In that group the boys appear to be significantly less socially mature than the girls but more boys verbalize higher levels of moral R. with S.Q.'s "above 100" than girls.

It is noted at this age level that there can be large individual

differences in children's reasoning because of personality experiences and socialization experiences. The pragmatic-dominant child is considering only the practical aspects which are unrelated to the fulfillment of another's needs. Those children with V.S.M. scores of "100 and below" may reflect a slower development in social competence. Those families with 2 working parents may retard the child's progress towards self-help through pressure of time. A response to Question No. 38 "Does the child eat with a fork?" elicited responses from some of the mothers that the child is able to do so but is so slow that she prefers him to use a spoon to save time. The practise of this social skill is inhibited. The child's environment is not responsive to this emerging skill (White el al 1979).

The parent enforces his or her demands and therefore restricts the child's feelings of a sense of mastery over his environment.

Those children with dominant hedonistic responses totalled 19% with S.Q.'s "100 and below". All of these were boys. Those children with S.Q.'s of "above 100" totalled 32% of the total and of that 64% were boys; the remaining 36% were girls. On close examination Story No. 3 elicited most of these responses, the majority of which reflected parental stress on hitting. For e.g. Sub. 19 (M) responded "Robert should hit him back". Responses dominant for the Needs O. category with an S.Q. "100 and below"

totalled 25% compared with a slightly higher percentage (32%) of those children with an S.Q. "above 100". Boys and girls accounted for 50%. Boys contributed 14% and girls 84% in this category. It appears that the young child is responsive to other's needs (and particularly girls in this study). Underwood and Moore (1982) propose that the sex difference is consistent with an orientation towards nurturance and concern for others. It is further influenced by the family structure which enforces the subordinate position of females (Baumrind 1980). Eisenberg-Berg and Hand (1979) propose that the responsiveness may be a rudimentary form of empathic moral reasoning further reinforced because the child has personally experienced both sides of a prosocial conflict. At one time or another, he has both been a helper and a receiver of help contributing to the development of role-taking ability.

An unexpected result was that of those children with a dominant modal response in the Stereotypic category totalling 6% with an S.Q. of "100 and below" and 4% in "above 100". As this mode reflects a more advanced level of reasoning it was unanticipated. Although the percentages across Stories 1, 2 and 4 all elicited 28% of these responses and Story No. 3 16%, it is considered that other factors such as awareness of social norms and the desire to act accordingly may be operating.

It is proposed that those children who are more socially mature and hence more task competent have also a greater sense of responsibility and self-control which is influenced by an awareness of social norms.

There is a clustering of responses with those of the Needs O. and Mut. B. categories indicative of a more mature level of moral reasoning.

There are no dominant modal responses in the Mut. B. category for subjects with an S.Q. of "100 and below" whereas 9% of subjects responded with an S.Q. of "above 100". These responses focused mainly on Story No. 2 (farmers). The concept of deservedness or distribution justice (Damon 1977) is considered applicable to this story content. Of the 9% there was an equal distribution between boys and girls. The use of Mut. B. reasoning which is a more advanced level of reasoning is only used by those children who are more task competent. This type of reasoning requires a more advanced level of roletaking to be able to judge needs of the benefactor and recipient. (Petersen 1982).

It is noticeable that the majority of the dominant modal responses verbalized by the children were mainly hedonistic and needs oriented reasoning. The predominance of this reasoning supports the findings of Eisenberg-Berg and Hand (1979).

8.3 Hypothesis No. 3

It was hypothesized that significant correlations in a positive direction would be found between high scores on the V.S.M. and high scores on the Pros. B.R. This hypothesis was supported by the findings (Table 2). This relationship was not unexpected. This is a moderate correlation. Pre-schoolers of the age group of this study appear to be sensitive to the needs of others. (Eisenberg-Berg 1979). Those children who behave more prosocially are more socially competent than those who are less prosocial. Dimensions on a rating scale although clearly defined cannot eschew differences of interpretation, as this scale was completed by the principal and assistant teacher at the school. The teachers rated the instances of prosocial behavior towards themselves and the children's peers as more frequent than the verbalization of concern about friends and story-characters during the reading time. It is not unreasonable to assume that prosocial behavior is more observable than verbalized concern by the children. Anderson's (1949) concept of 'social visibility' is pertinent here.

These children with S.Q.'s "above 100" have a grand median score on the Pros. B.R. of ,70 (Appendix G.). This is significantly higher than those children with S.Q.'s of "100 and below". (median = ,50). This result partially supports Piaget's (1932) concept of

"functional unity". Research of Eisenberg-Berg (1979) Eisenberg-Berg and Hand (1979): Eisenberg-Berg and Neal and Rheingod, Hay and West (1976) postulate the belief in an "internal rule" which is influenced by situational factors, interpersonal differences, and developmental level. Peterson (1982) confirms that perspective taking relates to helping by preschoolers suggesting that their ability to perceive the need for help is associated with their inter personal perceptual ability. It would therefore be naive to anticipate high scores on the Pros. B.R. for those children with an S.Q. on the V.S.M. of "100 and below".

More prosocial activity may be anticipated with those children with a higher median (,70) indicating a higher developmental level and further differentiation of the "internal rule". But factors such as the degree of deservedness for helping and an increased awareness of social norms may inhibit an increase in behaving prosocially.

Application of Peterson's (1982) argument to the children with an S.Q. of "100 and below" with the lower median implies that these children lack the perspective taking ability and task competence which are deemed to be significant in giving help.

Of those children with an S.Q. of "100 and below" 81% were boys and the remaining 19% were girls, whereas of those children who

S.Q. was "above 100", 64% were girls and 36% were boys. In this study there were more girls with a higher S.Q. than boys of this age-group pointing towards a more advanced level of social maturity.

8.4 Hypothesis No 4

It was hypothesized that those children with higher scores on Moral R. would also attain higher scores on the Pros. B.R. Those children who use higher levels of moral reasoning will behave more prosocially than children who use lower levels of reasoning. This hypothesis was supported by a significant positive relationship (Table 2). Examination of the scores of Moral R. and the medians of Pros. B.R. show a grand sample median of ,65. It will be remembered that it was decided to examine the dominant modal response of the children in this study in the relationships between these variables (dominant = at least 50% of reasoning was in one category; the other responses are above or below that category by 1 or 2 stages).

Those subjects whose dominant modal response was Pragmatic (Table 17) attained a lower median of ,60. They were below the group average in behaving prosocially and verbalizing concern for others. A possible explanation is that non-moral reasoning may be considered as an inhibitory factor for prosocial behavior. Reasons for this are not clear, Eisenberg-Berg (1982) proposes that

developmental changes in moral reasoning may parallel age-related cognitive development in roletaking abilites and also the ability to behave prosocially. All the pragmatic responses apply to Story No. 4 (the swimming competition) (Appendix E). It is noted that children's reasoning about hypothetical moral dilemmas may not be as advanced as real-life moral dilemmas and the unfamiliarity of the story content may have influenced the child to resort to a practical non-moral reasoning at this age level.

There were no subjects whose dominant modal response was that of the Auth & P. category. This contrasts with Kohlberg's (1969) proposal that moral reasoning is dominated by this orientation. It suggests that prosocial moral reasoning is more advanced than prohibition-oriented moral reasoning.

The lack of a dominant modal response in this category supports the findings of Eisenberg-Berg and Hand (1979) Eisenberg-Berg and Roth (1980) and Eisenberg-Berg and Neal (1981) in a prosocial context. Although children recognize subservience to parents and other adults (Youniss 1976), Damon (1977) offers confirmation of young children using principles of justice in moral reasoning. A higher median (,70) on the Pros. B.R. for those subjects with a dominant modal response of hedonism is noted. (Table 17). In terms of this scale these children behaved more prosocially and verbalized more concern for others. This relationship should be

viewed with caution as teacher-ratings may represent global perceptions of the children rather than accurate indices of their actual behavior. The stories of the Moral R. are hypothetical involving a cost to the chief story character and the Pros. B.R. observes dimensions of behavior which may not neccessarily produce any cost to the child but may occur because of possible future reciprocity. Hedonistic reasoning focuses on the gain to the child himself or to others who he needs or likes. This group of children is more prosocial than the pragmatic group. Some theorists do argue that prosocial or altruistic behavior is actually hedonistically motivated. A state of inward empathic distress is reduced by postive prosocial behavior (Eisenberg 1982).

Those subjects whose dominant modal response was of the Needs O. category (Table 17.) have the highest median on the Pros. B.R. (,80). These children are focussing directly on others needs unlike the Stereo and Mut. B. groups. The median is higher than those whose dominant modal responses are Stereo (,55) and Mut. B (,65). Those children dominant for the Mut. B. category considered both the chief story character and the recipient. A cost - benefit ratio is involved. This is the only category where differences in the medians between the pairs of questions were noted. (Q 1 & 2 = ,65: Q 3 & 4 = ,60). A possible interpretation is the "greater social visibility" of behaving prosocially compared with the verbalizations of concern. Those subjects whose dominant modal

response was Stereo. have the lowest median on the Pros. B.R. (,55). These children were the least prosocial of the group. A developmental awareness of the significance of social norms, a desire "to be kind" as verbalized by Sub. No.16 and the wish of the child to act in accordance with these norms may at times work against behaving prosocially compared with those children of the Needs O. category. (Pros B.R. median = ,80) It is a developmentally lower level of moral development in the Eisenberg-Berg (1979) classification of moral reasoning but without the social awareness of social norms.

Although the correlation between scores on the Pros. B.R. and Moral R. is low(r_s = ,21 p = ,10), it is perhaps realistic. It is questionable whether a simple and direct relationship can be considered. A simple action may spring from a variety of motives, influenced by situational variables and presence or absence of teachers in the school-situation. Other variables such as the extent of developed reflectivity, requiring a degree of responsibility and self-control are significant in behaving prosocially. Berkowitz (1982) proposes that children at about 5 - 6 years of age are using strategies of self-control in delaying gratification. It will be remembered that the definition of prosocial utilized for this paper (Mussen and Eisenberg 1977) contains components of these variables.

8.5 Hypothesis No. 5

It was hypothesized that healthier family functioning (FAD) would account for increased social maturity. (VSM) Findings did not support this hypothesis. The correlation was very weak and negative and non-significant (Table 2) indicating practically no relationship between the more socially competent children and the healthier types of family functioning.

It was felt that the seven dimensions of the F.A.D. covered the most important areas of the parent-child relationship. The decision to look at relationships from a general systems approach was further reinforced by the finding of one factor in a factor analysis.

This apparent lack of relationship may be attributed to the small sample (N=38) and to its homogeneity. It is also proposed that there may be other factors operating such as birth order. White et al (1979) found that the difference of birth status was highly significant in the amount of verbalization and time spent by the mother with the child. The first-born receives twice as much of each variable as later-born children.

8.6 Hypothesis No. 6

It was hypothesized that the healthier types of functioning (FAD) would promote increased prosocial behavior.(Pros. B.R.) Results did not support this hypothesis. The relationship was in a negative direction of both the pooled parental scores and the seperate parental scores.

It will be remembered that the rating scales were completed by the principle and teacher respectively for the two classes of children. Differences in the degree and amount of prosocial behavior need to be considered with these results.

The degrees of friendliness and sociability of the children may account for greater "social visibility" resulting in distorted findings. It is possible that the rating scale is actually tapping these personality characteristics rather than the extent of the prosociality of the child .

An alternative proposal is that of Berkowitz (1982) who reports that a longitudinal research by Block and Block (1979) found that teachers reports of prosocial tendencies were correlated with measures of self-control. Although more research is neccessary the degree O f social competence required to behave prosocially may develop only when self-control has developed.

It is further considered that the lack of relationship may be as a result of the lack of refinement of the prosocial behavior rating scale.

It is suggested that for future work that participant observers rate the children's prosocial behavior, or that parental ratings of the behavior be considered in addition to teacher ratings. Controls for birth status should be included as research evidence exists showing that older children help more. (Clausen 1972).

Additional Study

It was decided to intercorrelate the moral reasoning categories to investigate relationships between them. Spearman's rank non-parametric correlation was performed. (Table 4)

Hedonistic reasoning was negatively related to Needs O. reasoning (r_s = ,47) at the 1% level of significance. It is suggested that this indicates an increasing ability to take the role of the other in contrast with Hedon, reasoning where the "right" reasoning is that which satisfies the desires or needs of the self. This relationship reflects the prgressive differentation of the perspective taking ability. Eisenberg (1982) proposes that the

Needs O. reasoning reflects an early presence of empathy. Other researchers (Zahn-Waxler and Radke-Yarrow 1979) also support this proposition.

Hedonistic reasoning was also negatively related to Stereotypic reasoning (r_s = ,28) at the 1% level of significance. A clustering of responses with Needs O. and Mut. B. categories is noted (Appendix E) pointing towards an emerging maturity of judgment. The weaker negative correlation compared with that of Hedon and Needs O. (r_s = -,47) may be accounted for by desires to respond to social principles which inhibits the expression of the child's natural developing empathy.

These results support the findings of Eisenberg-Berg and Hand (1979). Other relationships between the categories were not significant. The relationships between the categories of Pragmatism and Needs O. and Auth & P. and Needs O. were both -,15. Non-significant relationships were not expected as the structure of these forms of reasoning reflects increasing differentiation of cognitive and perspective taking abilities.It is felt that the size of the sample may be rather small (N = 38) and may be a contributory factor in the lack of more significant relationships. It is noted that the original study by Eisenberg-Berg and Hand (1979) yielded one other significant relationship, between Hedonistic and Approval O. It will be remembered that this present

study yielded no dominant modal response of the latter category.

The reader is reminded that the milieu of the Eisenberg and Hand study is America. This measuring instrument (Moral R. stories) has not to the researcher's knowledge been uitlized in the South African context. Although Approval O. is not the most advanced level of moral reasoning it does mark an emerging use of the higher categories requiring increased perspective taking.

Conclusions

Recommendations for further research

It is considered that the following factors prevented this investigation from yielding more significant results.

a. Lack of suitability of the F A D.
b. Lack of suitability of the Pros. B.R. measure.
c. The selection of a highly homogeneous group.
d. The small size of the sample.

Lack of suitability of the F A D

Although the F A D appeared suitable as a measuring instrument it

is cautiously proposed that the dimensions of the F A D embrace a wider spectrum of parent-child relations than that required in the examination of moral reasoning. For example, firstly the dimension of behavior control is treated in this paper from the more traditional narrow focus of love-orientation, positive or negative and physical power assertion. The F A D approaches behavior control as styles of family functioning viz: rigid, flexible, laissez-faire and chaotic. As noted earlier there are similarities to the authoritarian, authoritative and permissiveness type of child rearing by Baumrind (1971). Although it is suggested that the general systems theory approach be retained, a questionnaire could be constructed which incorporates questions that are applicable to the narrower focus required for research into moral reasoning. The second example is that of the dimension of communication. As already stated morality is self-constructed knowledge (Piaget 1932: Kohlberg 1969) by the child from his own experiences, rather than socially constructed knowledge which is gained from others. It is possible that questions which focus on the area of self-constructed knowledge may yield more positive results. It is further proposed that these additional questions be subjected to item analysis so that the exact nature of the interaction between moral reasoning and communication is understood.

b. Lack of suitability of the Pros. B.R.

This measure was constructed for the research. It is possible that the instrument was not sufficiently refined to tap the prosocial behavior of the children. It was hypothesized that the healthier types of family functioning would account for increased prosocial behavior. Results did not support this hypothesis. It is thought that the teachers (who completed the rating scale) may have been responding to actual personality characteristics of the children. For example, the traits of friendliness and sociability may lead to greater social visibility and the halo effect may result in distorted findings.

For future research of this nature it is suggested that rating scales of prosocial behavior be completed by teachers and parents. Controls for birth-order should also be considered.

c. The selection of a highly homogenous group

As the research programme was concluded it became clear that by selecting all the subjects from the same school and of similar socio-economic status (middle-class), child rearing patterns appeared relatively homogeneous. Furthermore as the school is administered by the parents, interchange of ideas and interaction by the parents is encouraged by the principal. It is suggested for

future research that the sample selection be more heterogenous. Comparisons of the results can then be obtained. In this manner information may be gathered concerning the different types of family functioning and moral reasoning levels in different social and cultural groups. It is also felt that moral reasoning levels of the parents would need to be examined in order to draw meaningful social and cultural comparisons.

d. The small size of the sample

It is considered that the size of the sample (N=38) prevented this investigation from yielding more clear-cut results. It is suggested that in future research in this area the numbers of subjects be increased and different schools be selected. The sample will then be larger and more heterogeneous than the group under investigation for this paper.

This research into prosocial moral reasoning looks at an area in which little investigation has been conducted and therefore may be seen as a pilot study in this field.

REFERENCES

Ainsworth, M., Salter, D and Wittig, B.A. — Attachment and exploratory behavior of one year olds in a strange situation. In B.M. Foss (Ed) Determinants of infant behavior. (Vol 4) Wiley: New York 1967

Ambron, S.R. and Irwin, D.M. — Roletaking and Moral Judgment in 5 and 7 year olds. Developmental Psychology 1975, 11 (1) 102-

Aronfreed, J. — Conduct and Conscience. The Socialization of Internalized control over behavior Academic Press: New York, 1968

Baldwin, A.L. — Socialization and the parent-child relationship. Child Development 19 1948, 127-136

Baldwin, A.L. — The effect of home environment on nursery school behavior. In W.E. Martin and C.B. Stendler (Eds) Readings in Child Development. Harcourt Brace and Company: New York 1954

Baldwin, A. and Baldwin, C. — Children's judgments of kindness Child Development, 1970 41 29-47

Baldwin, A.L., Kalhorn, I. and Breese, F. — Patterns of parent behavior. Psychological Monographs 58 (268) 1945 1-75

Bar-Tal, E., Raviv, A. and — The development of altruistic behavior: empirical evidence. Developmental Psychology 1980 16 (5) 516-524

Baumrind, D. — Some thoughts on ethics of research: after reading Milgram's "Behavioral study of obedience. American Psychologist 1964, 19 421-423

Baumrind, D., and Black, A. — Socialization practices associated with dimensions of competence in pre-school boys and girls. Child Development 1967, 38 291-327

Baumrind, D. — Socialization and instrumental competence in young children. I.B. Weiner and D. Elkind (Eds) Readings in Child Development J. Wiley and Sons Inc : New York 1972

Baumrind, D. — Gender-differences and sex-related socialization effects - American Psychologist 1979

Baumrind, D. — New directions in socialization research American Psychologist July 1980 35 7, 639-652

Bayley, N and Schaefer, E. — Correlation of maternal and child behaviors with the development of mental abilities. Monographs of the Society for Research in Child Development 29 (6) (serial No. 97)

Becker, N.C. — Consequences of different kinds of parental discipline. In M.L. Hoffman and L.W. Hoffman (Eds) Review of Child Development. Russel Sage Foundation : New York 1964

Becker, W. and Krug, R. — The parent attitude research instrument: A research review Child Development 1965 36 329-65

Bell, R.Q. — A re-interpretation of the direction of effects in studies of socialization Psychological Review. 75 1968. 81-95

Berger, S.M. Conditioning through vicarious instigation Psychological Review 1962. 69 450-466

Berkowitz, M.W. Self-control development and relation to prosocial behavior: a response to Peterson Merril-Palmer Quarterly April 1982 28 (2) 223-236

Biller, H.B. Paternal Deprivation London: Heath, 1974

Blasi, A. Bridging moral cognition and moral action a critical review of the literature Psychological Bulletin July 1980. 88 (1) 1-33

Bowlby, J. Attachment and Loss Vol. Hogarth : London 1969

Brönfenbrenner, U. Socialization and Social Class through time and space. In E.E. Maccoby, T.M. Newcomb, and E.C. Hartley (Eds). Readings in Social Psychology New York : Holt 1958 400-425

Bryan, J.H. and Test, M.A. Models and helping. Naturalistic studies in aiding behavior. Journal of Personality and Social Psychology 1967. 6 400-407

Bryan, J.H. and London, P. Altruistic behavior by children Psychological Bulletin. 1970 75 (3) 200-211

Bryan, J.H. You will be well advised to watch what we do instead of what we say. In D.J. de Palma and J.M. Foley (Eds) Moral Development, Current theory and research Erlbaum Assosc: Hillsdale New Jersey. 1975

Champney, H. The variables of parent behavior. Journal of Abnormal Social Psychology 36 1941 525-542

Chapman, M. Listening to reason: Children's attentiveness and parental discipline Merrill-Palmer Quarterley 1979 25 251-263

Chilman, C.S. Programmes for disadvantaged parents, some major trends and related research in B.M. Caldwell and H.N. Riccuti (Eds) Review of Child Development Research Vol. 3: Univ. of Chicago Press London 1973

Clausen, J.A. Perspectives in childhood socialization In I.B. Weiner and D. Elkind (Eds) Readings in Child Development J. Wiley and Sons Inc: New York 1972

Clifford, E. Social visibility. Child Development 1963 34 (3) 799-808

Cole, P.M. and Hartley, D.G. The effects of reinforcement and strategy training on impulsivity responding Child Development 1979 49 381-384

Crandall, V., Dewey, R., Katkovsky, W. and Preston, A. Parents attitudes and behaviors and grade school children's academic achievements. Journal of Genetic Psychology 1964 104 53-66

Damon, W. The Social World of the Child. Jossey Bass: San Francisco 1977

Darley, J.M., Klosson, E.C., and Zanna, M.P. Intentions and their contexts in the moral judgments of children and adults. Child Development 1978 49 66-74

Deutsch, C.P. Social class and child development in Caldwell and Ricutti (Eds) Review of Child Development Research Univ. of Chic. Press: London 1973

Drake, D.M. Perceptual correlates of impulsive and reflective behavior. Developmental Psychology 1970 2 204-212

Dreman, S. and Greenbaum, C.W. Altruism or reciprocity: Sharing behavior in Israeli kindergarten children. Child Development 1973 44 61-68

Eisenberg-Berg, N. Development of children's prosocial moral judgment. Developmental Psychology 1979 15 (2) 128-137

Eisenberg-Berg, N. and Hand, M. The relationship of pre-schoolers' reasoning about prosocial moral conflicts to prosocial behavior. Child Development 1979 50 356-363

Eisenberg-Berg, N. and Roth, K. Development of young children's prosocial judgment' a longitudional follow-up. Developmental Psychology 1980 16 (4) 375-376

Eisenberg-Berg, N. and Neal, C. Children's moral reasoning about their own spontaneous prosocial behavior. Developmental Psychology 1979 15 228-229

Eisenberg, N. The Developmental of Prosocial Behavior Academic Press: New York 1982

Epstein, N.B. and Bishop, D.S. — Problem centred systems therapy of the family In A.S. Gurman and D.P. Knisker (Eds) Handbook of Family Therapy. Brunner Mazel: New York 1981

Feldman, S. — Origins of Behavior and man's life career. American Journal of Psychology 1941 54 53-63

Feldman, N.S., Klosson, E.C., Parsons, J.E., Rholes, W.S. and Ruble, D.N. — Order of information presentation and children's moral judgments Child Development 1976 47 556-559

Fischer, W.F. — Sharing in pre-school children as a function of amount and type of reinforcement Genetic Psychology Monographs 1963 68 215-245

Freud, A. — Ego and the mechanisms of defence London: Hogarth, 1937

Gelfand, D.M. and Hartmann, D.P. — The development of prosocial behavior and moral judgment In R.L. Ault (Ed) Developmental Perspectives Goodyear Pub-Co: Santa Monica Calif. 1980

Grusec, J.E. and Ezrin, S.A. — Techniques of punishment and the development of self-criticism. Child Development 1972 43 1273-1288

Grusec, J.E., Kuczynski, L. Rushton, J.P. and Simutis, S.H. — Modeling, direct instruction and attributions: effects on altruism Developmental Psychology 1978 14 (19) 51-57

Grusec, J.E. and Redler, E. Attribution, reinforcement and altruism. A developmental analysis Developmental Psychology 1980 16 (5) 525-534

Grusec, J.E. and Skubiski, S. Model nurturance demand characteristics of the modeling experiment and altruism Journal of Personality and Social Psychology 1970 14 352-359

Haan Larger and Kohlberg Family patterns of moral reasoning Child Development 1976 47 1204-1206

Haan, N., Smith, M.B., and Block, J. Moral reasoning of young adults: political-social behavior, family background, and personality correlates. Journal of Personality and Social Psychology 1968 10 183-201

Halvorsen, C.F. and Waldrop, M.F. Maternal behavior toward own and other preschool children: the problem of owness. Child Development 1970 41 838-845

Handlon, B.J. and Gross, P. The development of sharing behavior Journal of Abnormal and Social Psychology 1959 59 425-428

Harris, S., Mussen, P., and Rutherford, E. Some cognitive, behavioral and personality correlates of maturity of moral judgment The Journal of Genetic Psychology 1976 128 123-135

Hartup, W.W. Peer interaction and social organization In P.H. Mussen (Ed) Carmichael's Manual of Child Psychology Vol. 2 New York: WIley 1970

Hartup, W.W. and Keller E.D. — Nurturance in preschool children and its relation to dependency Child Development 1960 31 681-689

Hetherington, E.M. and Parke, R.D. — Child Psychology: a contemporary viewpoint McGraw Hill Inc: Int St. Ed. 1982

HO, D Y F — Implications of collectivism: with special reference to the Chinese case and Maoist dialectics. In L. Eckensberger, W. Lonner and Y.H. Poortinga. (Eds). Cross-Cultural contributions to psychology. Selected papers from the fourth international conference of the international association for cross-cultural psychology. Netherlands: 1979 9 143-149

Hoffman, M.L. — Child rearing practices and moral development. Generalizations from empirical research. Child Development 1963 34 295-318

Hoffman, M.L. — Moral development. In P.H. Mussen (Ed) Carmichael's Manual of Child Psychology. Vol II U S A: J. Wiley and Sons Inc: 1970. 1970. 261-349

Hoffman, M.L. — Altruistic behavior and the parent, child relationship. Journal of Personality and Social Psychology. 1975 31 (5) 937-943

Hoffman, M.L. — Moral internalization, parental power and the nature of parent-child interaction Developmental Psychology 1975 11(2) 228-239

Hoffman, M.L. — Moral Internalization: current theory and research. Advances in Experimental Social Psychology 1977 10 85-132

Hoffman, M.L., and Salzstein — Parent discipline and the child's moral development. Journal of Personality and Social Psychology 1967 5 45-57

Hogan, R. — Moral development and the structure of personality. In D.J. de Palma and J.M. Foley (Eds) Moral Development, Current theory and Research. Erlbaum Assosc: Hillsdale New Jersey 1975

Hornstein, H.A. — Cruelty and Kindness. Prentice-Hall Inc: Englewood Cliffs: New Jersey 1976

Hurley, J.R. — Parental acceptance-rejection and children's intelligence. Merril Palmer Quarterly 1965 11 19-31

Hudson, L.M., Foreman, E.A. and Brion-Meisels, G. — Roletaking as a predictor of prosocial behavior in cross-age tutors. Child Development 1982 53 132-1329

Ianotti, R.J. — Effect of role-taking experiences on role-taking, empathy altruism and aggression. Developmental Psychology 1978 14 (2), 119-124

Karniol, R. — Settings, scripts and self schemata: a cognitive analysis of the development of prosocial behavior. In N. Eisenberg (Ed). The Development of Prosocial Behavior. Academic Press: New York,1982

Kay, W. Moral Development. Allen and Uniwin: London, 1968

Keasey, C.B. Implicators of cognitive development for moral reasoning. In D.J. de Palma and J.M. Foley (Eds) Moral Development Current theory and Research. L. Erlbaum Assos: Hillsdale, New Jersey, 1975

Kohlberg, L. Stage and sequence: a cognitive developmental approach to socialization. In D. Goslin (Ed) Handbook of Socialization Theory and Research Chicago: Rand McNally 1969

Krebs, D.L. Altruism - an examination of the concept and a review of the literature. Psychological Bulletin. 1970, 73 (4) 258 - 302

Krebs, D.L. Empathy and altruism. Journal of Personality and Social Psychology 1975. 32 (6) 1134 - 1146

Krebs, D.L. and Gilmore, J. The relationship among the 1st stages of cognitive development, roletaking abilities and moral development. Child Development. 1982, 53 877-886

Kurtines, W. and Grief, E. The development of moral thought: a review and evaluation of Kohlberg's approach. Psychological Bulletin 1974, 81 453-476

Ladd, G.W., Lange, G. and Stremmel, A. Personal and situational influences on children's helping behavior: factors that mediate compliant helping. Child Development. 1983, 54 488-501

Lane, D.M. and Peterson, D.A. — The development of selective attention. Merrill-Palmer Quarterly July 1982, 28 (3), 339-345

Leak, G.K. and — Empathy from an evolutionary perspective. Journal of the Theory of Social Behavior. 1982 11 (3) 79-82

Maccoby, E.E. — Socialization and the Developmental Change. Child Development. 1984 55 317-328

Maddi, S.R. — Personality Theories: A comparative analysis. Dorsey Press: Ilnois 1980

Martin, B. — Parent child relations. In F.D. Horowitz (Ed) Review of Child Development Research Univ. of Chicago Press: London

Midlarsky, E. and Brian, J.H. — Training charity in children. Journal of Personality and Social Psychology. 1967 5 408-415

Mussen, P. and Eisenberg-Berg, N. — The Roots of Caring, Sharing and Helping. Freeman: San Francisco 1977

McCluskey, K.A. and Wright, J.C. — Reflection-impulsivity and age as determinants of visual scoring strategy and preschool activities. Paper presented at the Meeting of the Society for Research in Child Development Denver April 1975

Nevius, J.R. — Level of moral judgment as a function of inductive discipline. The Journal of Social Psychology. 1977 103 155-156

Odom, R.D. Lane and Parson's inattention to relevant information. A need for the theoretical specification of task information in developmental research. Merrill-Palmer Quarterly. July 1982, 23 3 339-345

Parsons, T. The Social System. Free Press of Glencoe: New York, 1951

Peterson, L. Altruism and the development of internal control: an integrative model. Merrill Palmer Quarterly: April 1982 28 (2) 197-222

Piaget, J. The Moral Judgment of the Child Penguin Books: Singapore 1983

Pringle, M.K. The Needs of Children. Hutchinson and Co: London, 1980

Rosenhan, D.L., Underwood, B. and Moore, B. Affect moderates self gratification and altruism Journal of Personality and Social Psychology 1974 30 546-552

Rubin, K.H. and Schneider, F.W. The relationship between moral judgment, egocentrism and altruistic behavior. Child Development 1973 44 661-665

Rushton, J.P. Socialization and the altruistic behavior of children. Psychological Bulletin. 1976 83 (5) 898-913

Rutherford, E. and Mussen, P. Generosity in nursery school boys. Child Development 1968 39 755-765

Satir, J. — Conjoint Family Therapy. Palo Alto: Science and Behavior Books, 1967

Schwartz, S.H. — Normative influences on altruism Advances in Experimental Social Psychology. 10 1977 221-279

Sears, P.S. — Child rearing factors related to the playing of sex-typed roles. American Psychologist. 1953 8 431

Sears, R., Maccoby, E. and Levin, H. — Patterns of Child rearing. Evanston: Row, Peterson 1957

Selman, R. and Damon, W. — Social perspective taking and justice. In D.J. de Palma and J.M. Foley (Eds) Moral Development. Current Theory and Research. L. Erlbaum Assos: Hillsdale, New Jersey 1975

Sewell, W.H., Mussen, P.H. and Harris, C.W. — Relationships among Child-rearing factors. American Sociology Review. 20 (2) 1955 137-148

Shewder, R. A. — Beyond self-constructed knowledge: the study of culture and morality. Merrill-Palmer Quarterly. 1982 28 (1) 41-69

Siegel, M. — Fairness in Children. Academic Press: London, New York 1982

Siegel, S. — Non-parametric Statistics for the Behavioral Sciences. McGraw Hill: Japan, 1956

Snodgrass, J. — The Numbers Game. Statistics for Psychology. Oxford Univ. Press: New York, 1977

Sobesky, W.E. The effects of situational factors on moral judgment. Child Development 1983 54 575-584

Staub, E. The use of role-playing and induction in children's learning of helping and sharing behavior. Child Development. 1971 42 805-817

Staub, E. To rear a prosocial child: reasoning and learing by doing and learing by teaching others. In D.J. de Palma and J.M. Foley (Eds) Moral Development Current Theory and Research. L Erlbaum Assosc: Hillsdale New Jersey, 1975

Thompson, G. Child Psychology. Growth Trends in Psychological Adjustment. Houghton Miflin Co: Boston 1962

Trainer, F.E. A critical analysis of Kohlberg's contributions to the study of moral thought. Journal of Theory of Social Behavior. 1979 7 (1) 41-63

Trivers, R.L. The evolution of reciprocal altruism. Quarterly Review of Biology 1971 46 35-37

Underwood, B. and Moore, B.S. The generality of altruism in children. In N. Eisenberg (Ed) The Development of Prosocial Behavior. Academic Press: New York, 1982

White, B.L., Kaban, B.T. and Attanucc, J.S. The Origins of Human Competence. Lexington Books: Toronto, 1979

Whiting, B.B. and Whiting, J.W.M. — Children of Six Cultures: a Psychocultural analysis Harvard Univ. Press: Cambridge Mass, 1975

Yarrow, M.R., Scott, P.M. and Waxler, C.Z. — Learning concern for others. Developmental Psychology, 1973 8 (2) 240-260

Zahn-Waxler, C. and Radke-Yarrow, M. — The development of altruism: alternative research strategies. In N. Eisenberg (Ed) The Development of Prosocial Behavior. Academic Press: New York, 1982

Zahn-Waxler, C., Yarrow, M. and King, R.A. — Child-rearing and children's prosocial initiations towards victims of distress. Child Development. 1979 50 319-330

Zelniker, T. and Jeffrey, W. — Reflective and impulsive children. Strategies of information processing underlying differences in problem solving. Monographs of the Society for Research in Child Development. 1976 41 1-59

A P P E N D I X A

MORAL REASONING STORIES

Stories are sex-appropriate to the child. The story-sequence of 1, 2, 3, 4 is reversed with each alternate child, male and female.

STORY NO 1

One day a girl (boy) named Mary (Eric) was going to a friend's birthday party.[x1] On her (his) way she (he) saw a girl (boy) who had fallen and

hurt her (his) leg. [x2] The girl (boy) asked Mary (Eric) to go to her (his) home and fetch her (his) parents so that they could take her (him) to the Doctor.

But if Mary (Eric) did run to fetch the parents, she (he) would be late for the birthday party and she (he) would miss the nice ice-cream, cakes and all the fun and games.

x1 = Picture presentation

X2 = Picture presentation

Question: 1. What should Mary (Eric) do?

2. Why?

STORY NO 2

There was a valley not far from Cape Town. In there were several farms. Some of the farmers only grew vegetables and others farmed cattle as well as vegetables.[x1]

This winter was very wet and cold and the river running through the valley overflowed and killed off lots of the young vegetables.[x2] Some of

the farmers therefore had practically no food. Other farmers who lived further away from the river, had plenty of food. They were asked to give food to the poor hungry farmers. If they give food to the poor hungry farmers, they will not have very much for themselves.

x1 = Picture presentation

x2 = Picture presentation

Questions:

1. What should the farmers do?
2. Why?

STORY NO 3

Jean (John) is playing in the garden.[x1] She (he) decides to go and play with some friends in the sandpit. When she (he) gets there, she (he) sees her (his) friend Helen (Robert) being hit by Barbara (David).[x2]

If she (he) jumps into the sandpit to help rescue Helen (Robert), she (he) may also be hurt by the other child.

x1 = Picture presentation

x2 = Picture presentation

Questions:

1. What should Jean (John) do?
2. Why?

STORY NO 4

There was a young man (woman) who was a very clever swimmer.[x1] He (she) won every swimming competition. On the day of a very important swimming gala for which the prize was R500 he (she) was asked to help some crippled children by teaching them to swim for the whole day.[x2]

If he (she) helped the crippled children by teaching them to swim on that day, he (she) would miss the swimming gala and the chance of winning R500.

x1 = Picture presentation

x2 = Picture presentation

Questions:

1. What should he (she) do?
2. Why?

A P P E N D I X B

PROSOCIAL BEHAVIOR RATING SCALE

	Always	Generally	Sometimes	Seldom	Never
	5	4	3	2	1
1. Helps peers spontaneously					
2. Helps teacher spontaneously					
3. Expresses verbal concern re. peers					
4. During story time, expresses concern re. story characters					

PLEASE BE ASSURED OF COMPLETE CONFIDENTIALITY IN THIS MATTER

APPENDIX C

Age Periods

O - I

*egory†	*Score**	*Items*	*LA Mean*
C	.....	1. "Crows"; laughs	.25
HG	.....	2. Balances head	.25
HG	.....	3. Grasps objects within reach	.30
S	.....	4. Reaches for familiar persons	.30
HG	.....	5. Rolls over	.30
HG	.....	6. Reaches for nearby objects	.35
O	.....	7. Occupies self unattended	.43
HG	.....	8. Sits unsupported	.45
HG	.....	9. Pulls self upright	.55
C	.....	10. "Talks"; imitates sounds	.55
HE	.....	11. Drinks from cup or glass assisted	.55
L	.....	12. Moves about on floor	.63
HG	.....	13. Grasps with thumb and finger	.65
S	.....	14. Demands personal attention	.70
HG	.....	15. Stands alone	.85
HE	.....	16. Does not drool	.90
C	.....	17. Follows simple instructions	.93

†y to categorical arrangement of items:
G — Self-help general; C — Communication; L — Locomotion
D — Self-help dressing; SD — Self-direction; O — Occupation
E — Self-help eating; S — Socialization

*r method of scoring see "The Measurement of Social Competence."

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I - II

L	18.	Walks about room unattended	1.03
O	19.	Marks with pencil or crayon	1.10
SHE	20.	Masticates food	1.10
SHD	21.	Pulls off socks	1.13
O	22.	Transfers objects	1.20
SHG	23.	Overcomes simple obstacles	1.30
O	24.	Fetches or carries familiar objects	1.38
SHE	25.	Drinks from cup or glass unassisted	1.40
SHG	26.	Gives up baby carriage	1.43
S	27.	Plays with other children	1.50
SHE	28.	Eats with spoon	1.53
L	29.	Goes about house or yard	1.63
SHE	30.	Discriminates edible substances	1.65
C	31.	Uses names of familiar objects	1.70
L	32.	Walks upstairs unassisted	1.75
SHE	33.	Unwraps candy	1.85
C	34.	Talks in short sentences	1.95

II - III

SHG	35.	Asks to go to toilet	1.98
O	36.	Initiates own play activities	2.03
SHD	37.	Removes coat or dress	2.05
SHE	38.	Eats with fork	2.35
SHE	39.	Gets drink unassisted	2.43
SHD	40.	Dries own hands	2.60
SHG	41.	Avoids simple hazards	2.85
SHD	42.	Puts on coat or dress unassisted	2.85
O	43.	Cuts with scissors	2.88
C	44.	Relates experiences	3.15

III - IV

L	45.	Walks downstairs one step per tread	3.23
S	46.	Plays cooperatively at kindergarten level	3.28
SHD	47.	Buttons coat or dress	3.35
O	48.	Helps at little household tasks	3.55
S	49.	"Performs" for others	3.75
SHD	50.	Washes hands unaided	3.83

IV - V

SHG	51.	Cares for self at toilet	3.83
SHD	52.	Washes face unassisted	4.65
L	53.	Goes about neighborhood unattended	4.70
SHD	54.	Dresses self except tying	4.80
O	55.	Uses pencil or crayon for drawing	5.13
S	56.	Plays competitive exercise games	5.13

V - VI

O	57. Uses skates, sled, wagon	5.13
C	58. Prints simple words	5.23
S	59. Plays simple table games	5.63
SD	60. Is trusted with money	5.83
L	61. Goes to school unattended	5.83

VI - VII

SHE	62. Uses table knife for spreading	6.03
C	63. Uses pencil for writing	6.15
SHD	64. Bathes self assisted	6.23
SHD	65. Goes to bed unassisted	6.75

VII - VIII

SHG	66. Tells time to quarter hour	7.28
SHE	67. Uses table knife for cutting	8.05
S	68. Disavows literal Santa Claus	8.28
S	69. Participates in pre-adolescent play	8.28
SHD	70. Combs or brushes hair	8.45

VIII - IX

O	71. Uses tools or utensils	8.50
O	72. Does routine household tasks	8.53
C	73. Reads on own initiative	8.55
SHD	74. Bathes self unaided	8.85

IX - X

SHE	75. Cares for self at table	9.03
SD	76. Makes minor purchases	9.38
L	77. Goes about home town freely	9.43

X - XI

C	78. Writes occasional short letters	9.63
C	79. Makes telephone calls	10.30
O	80. Does small remunerative work	10.90
C	81. Answers ads; purchases by mail	11.20

XI - XII

O	82. Does simple creative work	11.25
SD	83. Is left to care for self or others	11.45
C	84. Enjoys books, newspapers, magazines	11.58

XII - XV

S	85. Plays difficult games	12.30
SHD	86. Exercises complete care of dress	12.38
SD	87. Buys own clothing accessories	13.00
S	88. Engages in adolescent group activities	14.10
O	89. Performs responsible routine chores	14.65

XV - XVIII

C	90. Communicates by letter	14.95
C	91. Follows current events	15.35
L	92. Goes to nearby places alone	15.85
SD	93. Goes out unsupervised daytime	16.13
SD	94. Has own spending money	16.53
SD	95. Buys all own clothing	17.37

XVIII - XX

L	96. Goes to distant points alone	18.05
SD	97. Looks after own health	18.48
O	98. Has a job or continues schooling	18.53
SD	99. Goes out nights unrestricted	18.70
SD	100. Controls own major expenditures	19.68
SD	101. Assumes personal responsibility	20.53

XX - XXV

SD	102. Uses money providently	21.5+
S	103. Assumes responsibility beyond own needs	21.5+
S	104. Contributes to social welfare	25+
SD	105. Provides for future	25+

XXV+

O	106. Performs skilled work	25+
O	107. Engages in beneficial recreation	25+
O	108. Systematizes own work	25+
S	109. Inspires confidence	25+
S	110. Promotes civic progress	25+
O	111. Supervises occupational pursuits	25+
SD	112. Purchases for others	25+
O	113. Directs or manages affairs of others	25+
O	114. Performs expert or professional work	25+
S	115. Shares community responsibility	25+
O	116. Creates own opportunities	25+
S	117. Advances general welfare	25+

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A P P E N D I X D

page 1 ID ____ ____ ____

1. Planning family activities is difficult because we misunderstand each other.

____ SA ____ A ____ D ____ SD ____

2. We resolve most everyday problems around the house.

____ SA ____ A ____ D ____ SD ____

3. When someone is upset the others know why.

____ SA ____ A ____ D ____ SD ____

4. When you ask someone to do something, you have to check that they did it.

____ SA ____ A ____ D ____ SD ____

5. If someone is in trouble, the others become too involved.

____ SA ____ A ____ D ____ SD ____

6. In times of crisis we can turn to each other for support.

____ SA ____ A ____ D ____ SD ____

7. We don't know what to do when an emergency comes up.

____ SA ____ A ____ D ____ SD ____

8. We sometimes run out of things that we need.

____ SA ____ A ____ D ____ SD ____

9. We are reluctant to show our affection for each other.

____ SA ____ A ____ D ____ SD ____

10. We make sure members meet their family responsibilities.

____ SA ____ A ____ D ____ SD ____

11. We cannot talk to each other about the sadness we feel.

____ SA ____ A ____ D ____ SD ____

12. We usually act on our decisions regarding problems.

____ SA ____ A ____ D ____ SD ____

13. You only get the interest of others when something is important to them.

_____ SA _____ A _____ D _____ SD _____

14. You can't tell how a person is feeling from what they are saying.

_____ SA _____ A _____ D _____ SD _____

15. Family tasks don't get spread around enough.

_____ SA _____ A _____ D _____ SD _____

16. Individuals are accepted for what they are.

_____ SA _____ A _____ D _____ SD _____

17. You can easily get away with breaking the rules.

_____ SA _____ A _____ D _____ SD _____

18. People come right out and say things instead of hinting at them.

_____ SA _____ A _____ D _____ SD _____

19. Some of us just don't respond emotionally.

_____ SA _____ A _____ D _____ SD _____

20. We know what to do in an emergency.

_____ SA _____ A _____ D _____ SD _____

21. We avoid discussing our fears and concerns.

_____ SA _____ A _____ D _____ SD _____

22 It is difficult to talk to each other about tender feelings.

_____ SA _____ A _____ D _____ SD _____

23. We have trouble meeting our bills.

_____ SA _____ A _____ D _____ SD _____

24. After our family tries to solve a problem, we usually discuss whether it worked or not.

_____ SA _____ A _____ D _____ SD _____

25. We are too self-centered.

_____ SA _____ A _____ D _____ SD _____

26. We can express feelings to each other.

_____ SA _____ A _____ D _____ SD _____

27. We have no clear expectations about toilet habits.

_____ SA _____ A _____ D _____ SD _____

28. We do not show our love for each other.

_____ SA _____ A _____ D _____ SD _____

29. We talk to people directly rather than through go-betweens.

_____ SA _____ A _____ D _____ SD _____

30. Each of us has particular duties and responsibilities.

_____ SA _____ A _____ D _____ SD _____

31. There are lots of bad fee~~l~~ings in the family.

_____ SA _____ A _____ D _____ SD _____

32. We have rules about hitting people.

_____ SA _____ A _____ D _____ SD _____

33. We get involved with each other only when something interests us.

_____ SA _____ A _____ D _____ SD _____

34. There's little time to explore personal interests.

_____ SA _____ A _____ D _____ SD _____

35. We often don't say what we mean.

_____ SA _____ A _____ D _____ SD _____

36. We feel accepted for what we are.

_____ SA _____ A _____ D _____ SD _____

37. We show interest in each other when we can get something out of it personally.

_____ SA _____ A _____ D _____ SD _____

38. We resolve most emotional upsets that come up.

_____ SA _____ A _____ D _____ SD _____

39. Tenderness takes second place to other things in our family.

_____ SA _____ A _____ D _____ SD _____

40. We discuss who is to do household jobs.

_____ SA _____ A _____ D _____ SD _____

41. Making decisions is a problem for our family.

_____ SA _____ A _____ D _____ SD _____

42. Our family shows interest in each other only when they can get something out of it.

_____ SA _____ A _____ D _____ SD _____

43. We are frank with each other.

_____ SA _____ A _____ D _____ SD _____

44. We don't hold to any rules or standards.

_____ SA _____ A _____ D _____ SD _____

45. If people are asked to do something, they need reminding.

_____ SA _____ A _____ D _____ SD _____

46. We are able to make decisions about how to solve problems.

_____ SA _____ A _____ D _____ SD _____

47. If the rules are broken, we don't know what to expect.

_____ SA _____ A _____ D _____ SD _____

48. Anything goes in our family.

_____ SA _____ A _____ D _____ SD _____

49. We express tenderness.

_____ SA _____ A _____ D _____ SD _____

50. We confront problems involving feelings.

_____ SA _____ A _____ D _____ SD _____

51. We don't get along well together.

_____ SA _____ A _____ D _____ SD _____

52. We don't talk to each other when we are angry.

_____ SA _____ A _____ D _____ SD _____

53. We are generally dissatisfied with the family duties assigned to us.

_____ SA _____ A _____ D _____ SD _____

54. Even though we mean well, we intrude too much into each others lives.

_____ SA _____ A _____ D _____ SD _____

55. There are rules about dangerous situations.

_____ SA _____ A _____ D _____ SD _____

56. We confide in each other.

_____ SA _____ A _____ D _____ SD _____

57. We cry openly.

_____ SA _____ A _____ D _____ SD _____

58. We don't have reasonable transport.

_____ SA _____ A _____ D _____ SD _____

59. When we don't like what someone has done, we tell them.

_____ SA _____ A _____ D _____ SD _____

60. We try to think of different ways to solve problems.

_____ SA _____ A _____ D _____ SD _____

A P P E N D I X E

1. Scores obtained on the 4 main variables under investigation:

Moral Reasoning

T A B L E

S C O R E S

Subject	Story No's				Score	Subject	Story No's				Score
	1	2	3	4			1	2	3	4	
1	3	0	4	0	3,5	20	3	0	3	3	2,25
2	0	4	3	1	3,5	21	3	4	N/A	4	3,67
3	3	4	3	4	3,5	22	1	4	4	N/A	3,00
4	3	4	1	3	2,75	23	3	4	2	1	2,50
5	4	N/A	1	N/A	2,50	24	1	7	3	4	3,75
6	3	4	3	1	2,75	25	4	4	4	4	4,00
7	1	4	3	1	2,25	26	3	4	3	1	2,75
8	4	1	2	4	2,75	27	5	1	3	4	3,75
9	2	1	3	1	1,75	28	N/A	N/A	1	3	2,00
10	5	5	5	4	4,75	29	0	7	4	7	4,50
11	4	1	4	1	2,50	30	3	4	2	3	3,00
12	1	5	3	5	3,50	31	3	4	4	3	3,50
13	2	1	4	3	2,50	32	3	3	3	3	3,00
14	4	7	5	7	5,75	33	1	4	0	4	2,25
15	7	1	3	3	3,50	34	1	7	2	3	3,25
16	4	3	3	7	4,25	35	N/A	1	4	4	2,67
17	3	3	3	3	3,00	36	5	4	4	4	4,25
18	N/A	1	N/A	N/A	1,00	37	1	7	4	4	4,00
19	1	4	3	1	2,25	38	3	4	N/A	4	3,67

0	=	Non-classifiable
No's 1-7	=	Moral reasoning category response
N/A	=	No answer
1	=	Progmatic
2	=	Authority and Punishment
3	=	Hedonism
4	=	Needs Orientation
5	=	Stereotype
s7	=	Mutual Benefit

DOMINANT MODAL RESPONSE AND USE OF A 3RD OR 4TH CATEGORY OF EITHER THE SAME OR 1 STAGE ABOVE OR BELOW

Subject No.	Story No.			
	1	2	3	4
3	3	4	3	4
10	5	5	5	4
17	3	3	3	3
25	4	4	4	4
28	3	4	0	4
31	3	4	4	3
32	3	3	3	3
36	5	4	4	4
38	3	4	0	4
	N = 9			

DOMINANT MODAL RESPONSE AND USE OF A 3RD CATEGORY OF 2 STAGES ABOVE OR BELOW

Subj. No.	Story No.			
	1	2	3	4
4	3	4	1	3
6	3	4	3	1
7	1	4	3	1
9	2	1	3	1
12	1	5	3	5
14	4	7	5	7
19	1	4	3	1
26	3	4	3	1
	N = 8			

= dominant mode of response

DOMINANT MODAL RESPONSE AND USING A 3RD AND 4TH CATEGORY OF 2 STAGES ABOVE OR BELOW

Subj. No.	Story No.			
	1	2	3	4
8	4	1	2	4
11	4	1	4	1
15	7	1	3	3
16	4	3	3	7
19	1	4	3	1
37	1	7	4	4
	N = 6			

RESPONSES OF VARYING LEVELS WITHOUT A DOMINANT MODE

Subj. No.	Story No.			
	1	2	3	4
2	N/C	4	3	1
13	3	4	2	1
23	1	7	3	4
24	5	1	3	4
27	2	1	4	3
34	1	7	2	3
	N = 6			

APPENDIX F

(2) PROSOCIAL BEHAVIOUR RATING SCORES

Subject	1	2	3	4	Median Score	Subject	1	2	3	4	Median Score
1	,80	,60	,60	,60	,60	20	,60	,40	,40	,20	,40
2	,60	,60	,60	,60	,60	21	,40	,40	,20	,20	,30
3	,60	,80	,80	,80	,80	22	,80	,80	,80	,60	,80
4	,80	,80	,80	,80	,80	23	,80	,80	,80	,80	,80
5	,60	,80	,60	,60	,70	24	,80	,80	,80	,80	,80
6	,60	,80	,60	,60	,70	25	,80	,80	,80	,80	,80
7	,60	,60	,60	,60	,60	26	,80	,80	,80	,80	,80
8	,80	,80	,80	,80	,80	27	,60	,80	,80	,60	,60
9	,60	,60	,60	,60	,60	28	,60	,60	,60	,60	,60
10	,80	,80	,60	,60	,70	29	,80	,80	,80	,60	,80
11	,80	,80	,60	,60	,70	30	,40	,40	,40	,20	,40
12	,40	,20	,40	,60	,40	31	,80	,80	,80	,60	,80
13	,40	,20	,40	,60	,40	32	,60	,60	,60	,40	,60
14	,60	,60	,60	,40	,60	33	,80	,80	,80	,60	,80
15	,60	,40	,40	,60	,50	34	,80	,80	,80	,80	,80
16	,80	,60	,80	,80	,70	35	,60	,60	,40	,20	,50
17	,60	,40	,60	,80	,50	36	,60	,80	,60	,60	,70
18	,40	,40	,40	,20	,40	37	,80	,80	,80	,40	,80
19	,40	,40	,60	,20	,50	38	,60	,60	,40	,20	,50

MEDIAN SCORE = ,65

A P P E N D I X G

SOCIAL QUOTIENTS OBTAINED ON THE VINELAND SOCIAL MATURITY SCALE

Subject	S.Q.	Subject	S.Q.
1	111	20	95
2	91	21	96
3	102	22	118
4	124	23	105
5	107	24	120
6	102	25	120
7	100	26	108
8	109	27	98
9	100	28	108
10	110	29	110
11	91	30	106
12	98	31	109
13	98	32	113
14	113	33	91
15	93	34	117
16	84	35	102
17	100	36	112
18	86	37	104
19	93	38	93

S.Q.'s OF 100 AND BELOW AND SCORES OF MORAL R AND PROS. B.R.

Subject	Vin. SM	Moral R.	Pros. BR
2	91	3,5	,60
7	100	2,25	,60
9	100	1,75	,60
11	91	2,5	,70
12	98	3,5	,40
13	98	2,5	,40
15	93	3,5	,50
16	84	4,25	,40
17	100	3,00	,50
18	86	1,00	,40
19	93	2,25	,50
20	95	2,25	,40
21	96	3,67	,30
27	98	3,25	,60
33	91	2,25	,80
38	93	3,67	,50
	N = 16		

Vineland S.M. Median = 94

Moral Reas. Median = 2,63

Pros. BR Median = ,50

S. Qs ABOVE 100 AND SCORES OF MORAL R AND PROS. B.R.

Subject	Vin. S.M.	Moral R.	Pros BR
1	111	3,5	,60
3	102	3,5	,80
4	124	2,75	,80
5	107	2,50	,70
6	102	2,75	,70
8	109	2,75	,80
10	110	4,75	,70
14	113	5,75	,60
22	118	3,0	,80
23	105	2,5	,80
24	120	3,75	,80
25	120	4,0	,80
26	108	2,75	,80
28	108	2,00	,60
29	110	4,50	,60
30	106	3,0	,40
31	109	3,5	,80
32	113	3,0	,60
34	117	3,25	,80
35	102	2,67	,50
36	112	4,25	,70
37	104	3,67	,80
	N = 22		

Vineland S.M Median = 109,5

Moral Reas. Median = 3,13

Pros. B.R Median = ,70

(4) SCORES OBTAINED ON THE FAMILY ASSESSMENT DEVICE OF FAMILY FUNCTIONING

ubs	Pro.		Solv.		Com.		Roles		Af. Res		Af. Inv.		Beh. Con.		Gen. Fun	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
1	2,17		2,33		2,00	2,33	2,91	3,00	1,50	1,67	1,71	2,57	1,89	1,78	1,83	2,00
2	2,00		2,60		2,44	2,00	2,73	2,56	2,33	1,67	2,17	2,28	1,89	2,38	2,08	2,36
3	1,50		1,50		1,56	1,44	1,73	1,82	2,00	1,67	1,43	1,29	1,33	1,33	1,25	1,17
4	1,00		1,83		1,33	1,22	1,45	1,73	1,00	1,00	1,57	1,43	1,00	1,56	1,00	1,17
5	1,50		1,50		1,56	1,67	1,73	2,00	1,67	1,33	1,57	1,57	1,33	1,33	1,17	1,42
6	2,17		2,17		2,22	2,00	2,27	2,55	2,17	2,33	2,43	2,43	2,11	1,89	2,17	1,75
7	1,83		1,50		2,00	1,56	1,91	1,82	2,17	1,67	1,57	1,57	1,22	1,67	1,58	1,33
8	2,33		1,83		2,00	2,00	2,36	2,45	2,67	2,17	1,71	1,86	1,44	1,33	1,92	1,67
9	2,50		2,00		2,22	2,11	2,36	2,27	1,67	1,17	1,67	1,86	2,13	2,33	1,75	1,75
10	2,00		1,67		1,58	2,11	2,18	2,11	2,33	1,80	1,86	2,43	2,00	2,00	2,00	1,92
11	1,83		1,83		1,89	1,89	1,91	1,80	2,17	1,50	1,71	2,14	1,78	1,78	1,67	1,83
12	2,00		3,00		2,00	2,33	1,73	1,91	1,83	1,91	1,86	1,14	1,44	1,78	1,50	2,00
13	2,00		3,00		1,73	1,91	2,00	2,33	1,83	1,91	1,44	1,78	1,86	1,14	1,50	2,00
14	2,00		2,17		1,67	1,67	2,18	2,27	1,67	1,83	1,71	2,00	1,78	1,67	1,50	1,67
15	2,00		2,00		2,00	2,33	2,36	2,36	2,50	2,50	2,43	2,57	2,11	1,89	2,18	2,17
16	2,17		1,67		2,44	1,78	2,45	1,91	2,00	1,67	2,29	1,57	2,22	1,44	2,17	1,67
17	1,33		1,50		1,44	1,56	1,91	1,82	1,17	1,33	1,86	1,71	1,44	1,44	1,45	1,08
18	1,83		1,50		1,89	1,33	2,18	1,91	1,86	1,50	1,86	1,43	1,78	1,56	2,00	1,42
19	2,00		2,17		2,33	2,22	2,36	2,27	2,17	1,50	2,29	2,29	2,11	1,78	2,00	1,67
20	2,50		2,00		2,67	2,33	2,55	2,36	3,00	2,17	2,29	2,14	2,00	1,67	2,58	2,25
21	2,17		2,50		2,22	2,22	2,18	2,36	2,00	1,83	1,57	2,00	2,00	2,11	1,67	2,08
22	2,00		2,33		2,56	2,56	1,73	2,18	2,17	2,83	1,35	2,00	1,33	1,56	1,83	2,08
23	1,67		1,67		1,56	2,00	2,00	2,18	1,83	1,83	1,86	2,00	1,56	2,00	1,58	1,75
24	2,17		2,00		2,13	2,33	2,10	2,55	2,17	2,00	2,00	2,00	2,00	2,00	2,00	2,00
25	1,50		1,33		1,89	1,33	1,91	1,73	1,17	1,00	2,00	1,29	1,33	1,33	1,33	1,08
26	2,17		2,00		2,33	1,89	2,09	2,09	2,33	1,33	1,86	2,14	2,33	1,56	2,17	1,75
27	2,20		2,00		2,63	2,00	2,44	2,18	2,40	2,17	2,40	2,14	2,33	2,11	2,00	1,92

Subs	Pro.Solv		Com.		Roles		Af. Res		Af. Inv.		Beh. Con.		Gen. Fun.	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
28	2,00	2,17	1,33	2,11	2,45	3,00	2,00	1,67	1,29	1,86	2,11	2,44	1,42	2,00
29	1,83	2,17	2,33	1,89	1,91	2,36	1,67	2,00	2,57	2,29	1,78	2,00	1,67	1,75
30	2,17	2,00	1,89	1,89	2,09	2,27	2,17	1,67	1,71	1,71	1,78	1,67	1,75	1,58
31	2,33	2,00	2,11	2,00	2,64	2,82	1,67	2,00	2,43	2,43	2,11	1,89	1,92	1,92
32	2,00	2,00	2,56	2,33	2,09	2,18	2,17	1,33	2,29	2,14	2,11	1,78	2,00	1,67
33	2,00	2,00	2,00	2,00	2,09	2,36	2,00	2,00	2,00	2,00	2,00	1,89	1,83	2,00
34	1,50	2,00	1,56	1,78	2,18	2,27	1,67	1,50	2,43	1,86	1,67	1,56	1,58	1,58
35	2,00	1,83	1,67	1,33	2,09	2,18	1,83	1,17	2,00	1,86	1,67	1,78	1,50	1,33
36	2,17	2,00	2,56	2,00	2,64	2,27	1,67	2,00	2,57	1,71	2,22	1,89	1,92	1,75
37	2,00	1,83	2,00	2,00	2,36	2,45	2,00	2,00	2,14	2,29	2,22	1,89	2,00	1,92
38	1,50	1,83	1,33	2,00	1,73	2,09	1,00	1,00	1,14	1,29	1,00	1,44	1,08	1,33

F = Father M = Mother

Pro. Solv. = Problem Solving

Com. = Communication

Roles

At. Res. = Affective Responsiveness

Af. Inv. = Affective Involvement

Beh. Con. = Behaviour Control

Gen. Fun. = General Functioning

The lower the score the greater the efficacy of each parent in problem solving, communication roles affective responsiveness affective involvement, behaviour control and general functioning.

F.A.D. MEDIANS OF THE FATHER AND MOTHER

SUBJECT NO.	F	M	Subj No.	F	M
1	1,89	2,33	20	2,58	2,33
2	2,17	2,36	21	2,00	2,11
3	1,50	1,44	22	1,83	2,18
4	1,00	1,43	23	1,67	2,00
5	1,56	1,50	24	2,10	2,00
6	2,17	2,33	25	1,50	1,33
7	1,83	1,57	26	2,17	2,00
8	2,00	1,86	27	2,40	2,14
9	2,13	2,00	28	2,00	2,11
10	2,00	2,00	29	1,83	2,00
11	1,83	1,83	30	1,89	1,71
12	1,86	1,91	31	2,11	2,00
13	1,83	1,91	32	2,11	2,00
14	1,71	1,83	33	2,00	2,00
15	2,18	2,33	34	1,67	1,78
16	2,22	1,67	35	1,83	1,78
17	1,44	1,50	36	2,22	2,00
18	1,86	1,50	37	2,00	2,00
19	2,17	2,17	38	1,33	1,44

F = Father

M = Mother

The grand median of the F F A D = 2,00

The grand median of the M F A D = 2,00

It is noted that the range from 1,00 (pooled medians) to 2,36 is not large and possibly reflects a very homogeneous sample.

22 JAN 1986