MORAL JUDGMENTS OF CHILDREN

Ph.D. PSYCHOLOGY

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Level of moral maturity was assessed in a group of children three to six years of age. For the older children, stories were used to elicit judgments about relative goodness or badness. Level of moral maturity was scored on the basis of the child's awareness of the intentions of the actor as opposed to his reliance on consequences. In the case of younger children a group of films depicting similar situations were shown.

Level of moral maturity was found to relate to the cognitive styles of reflection-impulsivity and field dependence-independence but not to verbal intelligence. Children characterized as immature in their moral judgments were found to be more impulsive and more field-dependent.

Children with higher level moral judgments also were rated by their teachers as more attentive and more reflective. In the preschool samples they were seen as less aggressive and more independent.

A developmental pattern of increased use of intentions was discovered within the preschool range. The early reliance on consequences is followed by an intermediate stage

of morality characterized by an increased use of intentionality and much questioning. This semi-autonomous stage was hypothesized to exist on the basis of the cognitive-developmental theories of Piaget (1932) and Kohlberg (1964). Age was found to be a significant determinant of moral maturity for both lower-class and middle-class samples.

Children who had received the lowest scores on moral maturity were trained to focus on intentions and ignore irrelevant consequences. At all age levels training had a significant effect in changing the moral orientation of the children. The effects of training proved to last over a period of time, and to generalize to a new experimenter, and to different stimulus materials.

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by

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INTRODUCTION

Psychological investigations of moral judgments have been influenced mainly by Piaget's (1932) theory. One of the central tenets of Piaget's view is that the quality of a child's moral values can only be revealed by the reasons and explanations he offers in justification of behaviour and attitudes. Only by focusing upon these cognitive aspects of morality can one discover whether a person has truly "internalized" socially sanctioned prohibitions. Accordingly, Piaget developed the approach of analyzing thought-structures underlying the moral concepts of persons at different age-levels.

For Piaget, a moral act is defined, in accordance with the Western rationalist philosophical tradition, as one based on a conscious prior judgment of its rightness of wrongness. The importance attached to learning the reasons which underly a person's behaviour appears, for example, in Aristotle:

> Actions, to be sure, are <u>called</u> just or temperate when they are such as a just or temperate man would do. But the doer is just or temperate not because he does such things but when he does them in the way of just and temperate persons. (Nicomochean Ethics, II, 4)

Behaving morally, according to this account, is acting

according to rules which one has understood. Both Piaget and Aristotle use analogies from spelling and arithmetic: a child shows he has <u>really</u> learned his lesson only when he performs according to a rule which he has internalized. In the same way a person has really behaved morally only when he is ready to offer reasons for his own behaviour. The insistence on the importance of a person's rationale for his moral behaviour is also relevant to educators. A distinction between moral education and mere indoctrination can be made on the basis of a child's ability to autonomously apply his own criteria in following rules (Wilson, Williams & Sugarman, 1967).

In contrast to this cognitive approach to morality, there is the approach exemplified by both Freud and some learning theorists that the main criterion of internalization should be the persistence of behaviour in the absence of reinforcing external outcomes. Freud's "superego" theory of moral development (1923) stresses unconscious emotional factors of early childhood. The inevitable frustrations that occur in this period arouse hostility toward the parent. For Freud this centers around the Oedipal conflict. The hostility felt towards the parent is repressed due to anxiety over anticipated punishment or loss of love. To

help maintain this repression the child adopts the rules and prohibitions of the parents. Furthermore, he adopts the parents' capacity for self-punishment or guilt--an experience which is dreaded because of its intensity, and resemblance to early anxiety about punishment. In order to avoid this guilt the child acts in accordance with parental and societal prohibitions and erects mechanisms of defense against the conscious awareness of unacceptable impulses. The basic processes of conscience-development are accomplished by about five or six years of age.

The superego concept has been reinterpreted by some psychologists on the basis of the notions of conditioned fear or anxiety (e.g., Mowrer, 1960). Without the complications of the psychoanalytic scheme the process of internalization for learning theory can be summarized as follows: an individual is repeatedly punished for a deviant act and eventually, various cues associated with the act arouse anxiety which can be avoided by inhibiting the act or engaging in some corrective action. This approach to internalization is as applicable to animals as to humans. In both cases absence of surveillance is taken as an adequate criterion of internalization; in both cases the criterion of internalization is essentially the criterion of resistance to extinc-

tion (Aronfreed, 1968).

Hoffman (1970) has suggested that all non-cognitive types of internalization--either in "superego" or learning theory formulations--are at best quite primitive. In these kinds of internalization, although a person may be unaware of it he is still motivated by external threat. Hoffman contrasts this with the sorts of internalization that rely upon cognitive capacities, particularly subjective evaluations. Thus an individual may evaluate his actions with respect to the standards or practices of those whom they hold in esteem, without necessarily being oriented toward the consequences his actions will have for himself. There are many criteria which can exercise control over conduct without any concrete reference to external consequences of reward and punishment. Another cited by Hoffman is the motivation to attain self-approval. There are moral orientations, furthermore--such as those based on principles of goodness and rightness--which are even more remote from concrete external referents.

Investigators of moral development have stressed the importance of distinguishing between the more conventional moral orientations and those which are more truly internalized. Hoffman (1970) has made the distinction between "conventional-rigid" and "humanistic-flexible" children on

the basis of personality and child-rearing practices found within the same age range. Kohlberg (1963, 1964) has demonstrated the same continuum of conventional-humanistic orientation to be a function of age.

The importance of different types of internalization of moral values is also emphasized in recent neo-Freudian theoretical formulations (e.g., Hartmann, 1960; Fromm, 1967). The revitalization of Freud's ego-ideal concept is explicitly connected with a more humanistic conscience and contrasted with the more primitive superego mechanism (e.g., Fromm, 1967, p. 163). Two other features of the neo-Freudian view bring it closer to theories based on Piaget's approach: the first is the admission of developmental factors during later childhood and adolescence as important for morality. The second is the insistence that moral development be theoretically linked with other ego functions (Fromm, 1967). These points are quite consistent with Freud's writings prior to the development of the superego concept (e.g., Freud, 1921). They represent, however, a radical break with the traditional psychoanalytic or "classical Freudian" view.

Concepts of Internalization and Moral Development Research

The importance of distinguishing types of internalization has emerged in discussions of the experimental findings

of several areas dealing with morality. One main strand of research, stimulated mainly by Freudian theory, has concerned itself with socialization techniques, particularly discipline. A number of apparent discrepancies in the findings can be understood by looking carefully at the indices of internalization that have been used. Discipline techniques can be classified by using Aronfreed's dichotomy between "inductive" and "sensitization" techniques (Aronfreed, 1961). Inductive techniques are those less directly punitive techniques which emphasize verbal evaluation of the child's behaviour; they induce internalized control of the child's behaviour by expanding his cognitive understanding, for example, by pointing to the consequences of his acts for others. Direct physical or verbal attack, on the other hand, sensitizes the child to the anticipation of punishment rather than to the reasons for behaving morally.

A number of surveys show significant correlations between the type of discipline used by parents and the child's internalization of moral values (Allinsmith, 1960; Burton, Maccoby & Allinsmith, 1961; Heinecke, 1953; Sears, Maccoby & Levin, 1957). In all these studies the children of parents whose discipline techniques fall primarily in the induction ("psychological") category show more internalization

in their reactions to transgression than do children of parents whose disciplinary habits are mainly "corporal" (the "sensitizers"). The main index of internalization was guilt or confession as indicated by responses to story-completion or doll-play techniques, and by parents' reports.

When resistance to temptation was used as the criterion of internalization, however, the results are less conclusive. Several studies did find a positive relationship between honesty and obedience and training techniques which emphasized reasoning (MacKinnon, 1938; Grinder, 1962; Sears, Rau & Alpert, 1965). Burton et al. (1961), however, obtained results in the opposite direction; that is, reasoning techniques and guilt responses were negatively related to the resistance index. This last study was done with preschoolers whereas all the others were with older children. Thus some theorists (e.g., Grinder, 1962) have attempted to explain the discrepancy as due to the difference in age samples. It is more reasonable, however, to explain the discrepancies in Burton's study as due to the use of different measures of internalization. A number of studies using both resistance to temptation and guilt as variables found no consistent relationships between these internalization indices (Allinsmith, 1960; Burton et al., 1961;

Sears et al, 1965).

It has been shown that resistance to temptation can be effectively manipulated by timing the punishment to take place early. This works with both animals and children (Mowrer, 1960; Aronfreed, 1963). Moreover, effective punishment is also a function of high intensity provided that children can discriminate between punished and unpunished acts (Parke & Walters, 1967). These laboratory findings seem to contradict the child-rearing data that corporal punishment is ineffective in obtaining internalization of prohibitions (Hoffman, 1970).

Aronfreed (1968) suggests that the discrepancies can be understood if one acknowledges that inductive techniques can sometimes be more potent than direct verbal and physical attack. This he attributes to the importance of the withdrawal of love component in discipline. Although this explanation is appealing, it is contradicted by the lack of evidence that withdrawal of love relates to resistance to temptation (Burton et al., 1961; Grinder, 1962; Sears et al., 1965). It seems likely that the apparent discrepancy can be best explained by Hoffman's (1970) view. He suggests that the resistance to temptation generated in the laboratory reflects a more primitive type of internalization than

that represented by the moral indices in the parent-child research.

Another index of internalization of moral values has been the control of aggression (Allinsmith, 1960; Sears et al., 1957). These studies support the generalization that non-corporal techniques of discipline are more effective than power assertion in inducing internal control. This would seem to be borne out by the findings that parents of aggressive delinquents typically show a high incidence of physical and verbal attack in response to their childrens' transgressions (Gleuck & Gleuck, 1950; Bandura & Walters, 1963; McCord, McCord & Howard, 1963). It should be noted, however, as Baumrind (1966) argues, that one cannot reach the conclusion from these studies that firmness or closeness of supervision by themselves are obstacles to healthy development.

A number of studies have been specifically designed to distinguish between more humanistic and more conventional moral orientations (Aronfreed, 1961; Hoffman & Saltzstein, 1967). The importance of taking into account the extent to which an internalization is cognitively based is underlined by the different patterns with which people react to their own transgressions. Aronfreed (1961) shows how these occur

along a continuum from internal (self-criticism) to external (apology or confession) even after they are sufficiently internalized to have become independent of direct surveillance. Hoffman and Saltzstein's (1967) study looked at the rationales given in moral judgments about hypothetical transgressions. They found that those children emphasizing harm to others in their rationales (the "humanistic-flexible" group) differed from the "conventional-rigid" children in their pattern of identification with parents (they tended to rate their parents as warmer). The authors also found this group to be less constricted and repressed as measured by a sentence-completion test and story completions.

Aronfreed (1961) found a positive relationship between non-corporal techniques and degree of internalization. Hoffman and Saltzstein (1967) also found different patterns of parental discipline: the parents of the humanistic-flexible group more often encouraged unconventional responses and pointed to the possible harmful consequences of certain acts for other people. It is interesting that these parents, however, do admit using more "power-assertion" than the parents of the "conventional" children. Hoffman (1970, p. 340) interprets this apparently discrepant finding as suggesting that power-assertion associated with the use of

reasoned explanations may indeed be constructive when used with discrimination. Two other studies which investigated child-rearing practices in relationship to moral judgments (MacRae, 1954; Johnson, 1962) found no connection between authoritarianism and heteronomy. Hoffman (1970) suggests, however, that it is difficult to draw any definite conclusions from these results since in one study the data on parental measures was obtained from the children (MacRae, 1954), and the other study listed general attitudes rather than discipline techniques (Johnson, 1962).

A number of other studies of different aspects of moral behaviour are consistent with the importance of a genuine cognitive internalization and its dependence upon "psychological" techniques of training. It has been shown, for example, that children will postpone gratification and resist temptation better after a mild than a harsh rebuke (Aronson & Carlsmith, 1963). These findings have been interpreted in terms of dissonance theory. According to this theory, a child experiences a dissonance between his desire to act to gratify impulse and his knowledge that he has resisted. He is more likely to reduce the dissonance by considering that he acted due to external pressure where the pressure is harsh. When the pressure is not too harsh or

obvious, however, he is more likely to resolve dissonance by believing that he didn't really want to yield to impulse, and to find reasons for acting morally. Thus this interpretation fits the findings discussed above that non-corporal techniques achieve better results in the home environment.

Evidence for the importance of a true humanistic internalization is provided as well by work on social conformity. It has been shown that under conditions of unusual stress, people will sometimes relinquish patterns of behaviour which may only <u>appear</u> to have been firmly internalized. Milgram (1964) has demonstrated how implicit or explicit approval may elicit conformity; he has shown that subjects will do serious harm to another person, including administering severe electric shocks. It should be noted, however, that students at the highest levels of moral maturity on Kohlberg's scale (1963) <u>will</u> resist an experimenter's request to administer these shocks (Hoffman, 1970). Other relevant studies are those which show that children more susceptible to the judgments of others are less likely to be able to postpone immediate rewards for delayed but more valuable ones (Mischel, 1961). It is clear that the more an individual's own evaluative resources are called into

play, the more important becomes the type of internalization that has been achieved.

In regard to discipline, Elmis and Milgram (1966) report that male college students, who resisted requests by an adult experimenter to apply electric shock to a peer, reported that their parents used power-assertive discipline when they were children more often than those who submitted to the experimenter's requests. Hoffman (1970) interprets this finding as showing that defending an underdog has an aggressive, anti-authority edge to it, which might result in part from experiencing power-assertive discipline in the home. This is consistent with the findings of Hoffman and Saltzstein (1967) that consideration for others as rated by peers related positively to power-assertion but showed no relationship to inductive (reasoning) techniques. These findings were consistent, however, only for boys; the girls in their seventh grade sample showed the same pattern for consideration as for moral prohibitions--a positive relationship to induction and a negative relationship to power techniques.

It is difficult to evaluate the above findings concerning altruism and consideration for others, in view of the paucity of studies. Hoffman's (1970) review of the

moral development literature cites the few studies in this field and notes the contrast with the voluminous research on moral prohibitions. Hoffman goes on to speculate whether this relative disinterest might perhaps reflect certain value orientations in Western society:

> Though the ethical norms of our traditional religions stress the importance of altruism and consideration, the striving individualism of the culture places obstacles in the way of such behaviour. (p. 319)

Hoffman speculates further that Western psychological theory may have evolved along similar lines antithetical to giving consideration for others a central place in personality. He points the finger of responsibility at the classical Freudian and classical behaviourist theories:

> Psychoanalytic theory, which has had the greatest impact on the moral development research...has generally assumed that the individual's willingness to give up more than he gains involves the suppression and transformation of primitive impulses... all in the service of avoiding guilt or anxiety. This view also fits well with the behaviouristic assumption that complex motives such as altruism derive from the operation of more basic biological drives. The classical theories have been modified, however.
>
> Recent years have seen a gradual change in this view, which reflects

> certain broader changes in psychological theory--mainly the psychoanalytic shift toward ego psychology and the newly won respectability of concepts pertaining to growth and mastery strivings which do not derive from deficiency motives. (Hoffman, 1967)

Although there is little empirical evidence, it is reasonable to expect, as Hoffman argues, that the development of consideration should bear some relationship to other indices of internalization. The present study attempts to obtain data on these relationships.

The Cognitive-Developmental Approach

Piaget's Theory

In contrast to the Freudian view which emphasizes the importance of early training in the development of conscience, Piaget (1932) sees morality resulting from an invariant sequence of stages which continue throughout childhood and even later years. Piaget studies the developmental shift in orientation towards rules by investigating the attitudes of children of different ages toward the origin and legitimacy of rules in the game of marbles. He also told stories to the children about persons who had committed various transgressions, and asked them such questions as why the acts were wrong, and which of two acts was worse, and why. Through these procedures, Piaget evolved a system of two

broad stages of moral development. In the earlier stage--referred to variously as moral realism, morality of constraint, or heteronomous morality--the child feels an obligation to comply to rules because they are sacred and unalterable. He tends to view behaviours as totally right or wrong and thinks that everyone views them in the same way. He judges the rightness or wrongness of an act on the basis of the magnitude of its consequences, the extent to which it conforms exactly to established rules, and whether or not it elicits punishment. In contrast, the child in the more advanced stage--called autonomous morality, morality of cooperation, or reciprocity--does not view rules as rigid or unchangeable but as subject to modification in response to human needs or situational demands. Recognizing a diversity in views of right and wrong, a child's moral judgments are no longer determined only by the consequences of an act, but also by his awareness of the intentions of the actor.

The higher morality develops, according to Piaget, at about eight to ten years in the average child. However, it should be emphasized that Piaget insisted that throughout the childhood years there is a gradual development toward greater autonomy; in fact Piaget often talks of a middle stage of morality in which rules are gradually being

interiorized (1932, p. 193). A number of writers have ignored Piaget's point that the stages "partially overlap" (p. 193) and "partially synchronize" (p. 120). As a result there has been a continuing controversy (Bandura, 1969; Cowan, Langer & Havenrich, 1969) concerning the existence of clearcut stages. Part of the problem, too, resides in the fact that Piaget and others used the story technique which, as Piaget has pointed out, does not allow the questioning of children under six "with any profit because of the intellectual difficulties of comparison" (1932, p. 120). Thus it is important to develop techniques to discover whether this intermediate stage exists in preschoolers.

There are two important factors which play a role in the transition from one stage to another, according to Piaget. The first consists of the child's developing cognitive capacities; the second is the shift from authoritarian socialization by parents to increasing interaction with peers. One of the cognitive limitations underlying a child's low-level moral judgments is his "realism"--his confusion of subjective and objective aspects of experience as exemplified in the perception of dreams as external events rather than mental phenomena. This helps explain why he confuses moral rules with fixed physical laws. He

also perceives the pain following rule infraction to be the same as the pain that automatically follows violations of physical laws, such as touching fire. This confusion Piaget calls the belief in "immanent justice". Another important cognitive limitation is what Piaget calls "egocentrism" (the inability to take the viewpoint of another person). This helps explain his inability to see that punishments after infractions are mediated by human judgments, or that rules are the products of agreement and cooperation based on common goals irrespective of different points of view. Two other important features of the egocentric viewpoint are "syncretism" and "centration". Syncretism refers to the child's reacting globally to a situation rather than analyzing its elements; the related concept of centration refers to the child's tendency to focus on some striking but superficial aspect of a phenomenon. Immaturity of moral judgment is the result of the interaction of adult constraint and these particular cognitive limitations (Piaget, 1932, p. 191).

Piaget stresses the importance of peer interaction in promoting the development of a more mature cognitive apparatus. The importance of cooperation extends beyond the realm of morality:

> With regard to logic, cooperation is at first a source of criticism ....it suppresses both the spontaneous conviction that characterizes egocentrism and the blind faith in adult authority. (1932, p. 410)

In exactly the same way for morality:

> Cooperation is at first a source of criticism and individualism...cooperation suppresses both egocentrism and moral realism, and thus achieves an interiorization of rules. (ibid, p. 411)

Another aspect of peer interaction more directly relevant to morality is its effect on the sympathetic attitude. An increased awareness of different perspectives through role-taking helps sensitize the child to the inner states that underlie the acts of others. This is clearly important for the child making the shift from basing his moral judgments of others entirely on the overt aspect of their acts, to taking their intentions into account (p. 190).

Piaget also assigns a fair amount of importance to the kind of discipline techniques used by parents and teachers. He advises parents to be "collaborators, not masters" (p. 412), and to give the child a feeling of equality by laying stress on one's own obligations and deficiencies (p. 133). Piaget clearly believed that reasoning techniques of discipline should heighten cognitive and moral maturity.

He also believed, however, that there was an inevitable authoritarianism that parents had to exert during the early years when children are too young to understand explanations on such matters as cleanliness or dealing with dangerous objects (p. 179).

Extension of Piaget's Theory

Kohlberg (1963, 1964) had modified Piaget's developmental scheme on the basis of extensive interviews of boys ranging in age from ten to sixteen. He used stories which compared obedience-serving and humanistic need-serving acts, and analyzed the quality of the judgments as indicated by the reasons given for the choices. Kohlberg distinguishes three general moral levels, one called Premoral, the second a Morality of Conventional Role-Conformity, and finally a Morality of Self-Imposed Principles. Each level has two distinguishing stages, so there are six stages in all. Kohlberg's first two stages correspond more or less with Piaget's two "childhood moralities". The first stage, characterized by an orientation to obedience is given a different interpretation by Kohlberg, however. In interpreting children's immature responses he places more emphasis on cognitive limitations than on authority and social determinants.

Similarly, Kohlberg's stage two resembles Piaget's stage of autonomy, although here again there is a different emphasis. Kohlberg argues that children of ten to twelve years are as yet actually far removed from a fully autonomous and mature morality. It is only as the child moves further through Kohlberg's other stages that such morality develops. Thus just as elements of Piaget's autonomy exist even in the earliest stages, so elements of heteronomy appear in the older subjects. Kohlberg's second level (the third and fourth stages) is characterized by a "good-boy" morality, and by a respect for authority and the social order. At the third level where morality is conceived in terms of the acceptance of moral principles, there is a distinction between stage five, in which right is characterized in terms of institutionalized laws or conventions, and stage six, when the child relies on much broader principles, such as logical consistency or universality, or the Golden Rule.

A number of other investigators have also extended Piaget's theory upwards in age and confirmed that elements of immature morality persist in adolescence (e.g., Loughran, 1967), and in adulthood (e.g., Walster, 1966). These findings support the Kohlberg scheme which is discussed

above. It should be noted that they are also consistent with Piaget's original view:

> There seem to exist in the child two separate moralities, of which, incidentally, the consequences can also be discerned in adult morality. (1932, p. 193, my emphasis)

These studies which have extended Piaget's observations to older children have yielded evidence of the gradual development of morality with age and the existence of heteronomous features even in later years. The question arises whether there is similar evidence of a developing morality during the preschool years, and whether autonomous features will be found at this age. The task is to create an instrument which is less complex than the story medium, but sufficiently realistic and interesting to sustain the attention of young children. The present study has attempted to develop such an instrument.

Controversies Concerning the Cognitive-Developmental Approach

Universality of Stage Sequence

A number of studies have confirmed Piaget's central contention that the young child's morality, which was originally oriented to obedience and punishment, develops with increasing age to become more autonomous (Lerner, 1937;

MacRae, 1954; Boehm, 1962; Johnson, 1962; Grinder, 1964). These findings were obtained with samples from a variety of populations representing both sexes and different levels of intellectual capacity and economic status. The studies have all been done with children of approximately the same age-range used by Piaget (six years to pre-adolescence).

The studies confirming Piaget's theory have been done mainly within countries of the Western world. If the postulated age sequences are truly universal, then they should be found in other cultures, and also in more primitive ones. The evidence here is both meagre and contradictory. Dennis (1943) obtained the expected age trends with Hopi Indians, and Jahoda (1958) with West African school children living in a large city. Kohlberg (1968) has shown that his postulated sequences hold up cross-culturally in Turkey, Mexico, and Taiwan.

On the other hand, the study by Havighurst and Neugarten (1955) of ten American Indian tribes yielded contradictory results. In four groups they found no age trends but in six there was a trend towards an <u>increased</u> heteronomous morality. As the children got older they believed more in an "immanent justice", confusing natural catastrophes with moral punishments. These investigators also studied the

development of attitudes towards rules of American games among Indian children from seven tribes who attended American schools. They found the expected decrease with age in the conception of rules as rigid in only two of the tribes. There was an increase in three of the tribes, and no change in two others.

Piaget had himself anticipated the possibility of "developmental arrest" in certain cultures (Piaget, 1947). Since the first duty of those initiated in some primitive cultures is to "submit to an already established truth", the result will be intellectual and moral conformity. To quote from Piaget:

> There is nothing to induce in him the habit of reflection or the critical spirit, for in every field... his thoughts are ready-made for him, and he bows to the collective notions of the tribe handed down from generation to generation. (Havighurst and Neugarten, 1955, pp. 125-126)

Piaget acknowledged, then, that sociocultural factors can be highly influential on the normal development of morality. Hoffman (1970) argues, however, that these findings must count as evidence against the universality of Piaget's stages. The concept of "developmental arrest" does not account for the finding that the direction of morality is actually reversed in some cultures.

Social Determinants of Morality

According to Piaget's theory, maturity of moral orientation should be a function in part of non-authoritarian discipline techniques. It will be recalled that most of the studies dealing with this question do indicate that reasoning by parents related positively to degree of internalization of moral values (Heinecke, 1953; Sears et al., 1957; Allinsmith, 1960; Aronfreed, 1961; Burton et al., 1961; Hoffman & Saltzstein, 1967). A few studies, however, found no relationship between authoritarianism and heteronomy (MacRae, 1954; Johnson, 1962), while several studies indicated that corporal methods (power-assertion) were effective under certain conditions in obtaining internalization (Elmis & Milgram, 1966; Hoffman & Saltzstein, 1967).

Another group of studies relevant to the question of the social determinants of moral judgments concerns social class. Most of the surveys indicate that the shift from an external to an internal orientation, as the child advances in age, occurs more slowly among working-class children (Boehm, 1962; Boehm & Nass, 1962; Johnson, 1962; Medinnus, 1962). Some of these results are difficult to evaluate as intelligence was not always controlled. One study, however, (Boehm, 1962), did control for intelligence and still found

indications of differences between working-class and middle-class children. Boehm found that upper middle-class children of both gifted and average intelligence scored higher than their lower-class counterparts. It should be noted, however, that these findings were not consistent for different ages. Thus, Boehm (1962) found that six-year-old working-class children do better on one of the four stories used than their middle-class counterparts. Johnson (1962) obtained social class differences only in his older samples.

A number of tentative explanations have been offered for these findings. The suggestion that moral judgment differences may be the indirect result of class differences in I.Q. is counterindicated by the study by Boehm (1962) which is mentioned above. Another rationale, that class differences in moral judgment reflect differences in parental approach, is also difficult to evaluate in view of the inconclusive child-rearing results discussed earlier. Hoffman (1970) suggests that authority experiences outside the home may be different, although he admits that these could be interpreted as enhancing, rather than retarding, moral development. He suggests, finally, that there is the possibility of a middle-class bias in the content of the items used in the research and in Piaget's initial

conceptualization.

Moral Judgments and Behaviour

Several studies have been designed to investigate the relationship between scores obtained by children on Piaget's and Kohlberg's scales, and their actual behaviour in moral situations. On the whole the evidence is somewhat inconsistent. There are on the one hand a number of studies showing positive correlations between moral judgments and moral behaviour; in a few, however, no relationship was obtained.

It has been shown that moral stages relate positively to teacher ratings of fairness to peers and adherence to rules in the absence of authority (Kohlberg, 1964). At the college level it was found that male students at Kohlberg's stages five and six, compared with those at stages three and four, resisted an experimenter's request to administer increasingly more severe shocks to another student (Hoffman, 1970, p. 281). Rettig and Sinha (1966) report that college students more oriented to risk of external censure for transgression were also most likely to be deceitful in a situation where their deceit appeared to be undetectable to others. With thirteen-year-olds it was found that internal moral judgments related positively to guilt and confession--although the relationship was found only in

boys (Hoffman, 1969). Eleven and twelve-year-olds with low scores on moral judgments are found to be prejudiced as measured by personality ratings and questionnaires (Loghran, 1967). Krebs (1968) reports that sixth-grade children at higher moral stages resisted temptation more successfully.

On the other hand, Grinder (1964) found that belief in immanent justice and the tendency to consider intentions did not significantly relate to a laboratory measure of resistance to temptation in boys and girls ranging in age from seven to eleven years. Similarly, Nelson, Grinder and Challas (1968) report that maturity of moral judgment as assessed in terms of Kohlberg's stages did not relate (although I.Q. did) to resistance to temptation in seventh-grade boys and girls.

Perhaps the discrepant findings can be understood in terms of the limitations of the resistance-to-temptation tasks. In the light of the findings which confirm that higher level children are much less ready to conform, it is possible to conjecture that they did not resist temptation because they did not see good reason to. It has been shown that lower level moral judgments are related to a lack of differentiation between petty and serious transgressions (Hoffman, 1963; Fenyes, 1966). Children of a

more mature orientation will obey rules, and resist temptation, only if they believe that the transgressions are serious, and the rules reasonable. Thus the high level children in Grinder's (1964) study who did not resist temptation may simply have judged that disobeying the rules was not a serious offense.

Moral Judgments and Cognition

A number of studies have demonstrated that maturity of moral orientation in children is positively correlated with intelligence (MacRae, 1954; Boehm, 1962; Johnson, 1962). The results are inconclusive, however, as they were not found to apply to lower-class children (e.g., Boehm, 1962) or to younger children (e.g., Johnson, 1962). MacRae (1954) found I.Q. to be a factor only with certain stories (those looking at intentions vs. consequences) and not with others, for example those testing obedience to adult authority.

Other investigators have not found intelligence to relate significantly to moral judgment level. Durkin (1959) used Piaget's clinical method in interviewing boys and girls in grades two, five, eight, and eleven on the development of the concept of justice. There was no difference in response between intelligence levels at any age.

Kohlberg (1958) used subjects from the upper and lower socio-economic classes of each of his age groups, and found no significant differences between the higher and lower intelligence levels, although he did find differences "in level of sophistication" in the replies.

Aronfreed (1968) suggested that a positive relationship between I.Q. and level of moral maturity does not, in any case, show anything about the role of cognition in morals. The I.Q. data may simply indicate that verbal abilities and complexities are the central determinant in allowing the child to apply the principle of intentionality. Since the main technique of eliciting moral judgments has been to tell stories, Aronfreed's interpretation seems appropriate. In support of his view are the findings that conventional tests of intelligence correlate substantially with the complexity of the information which children can take into account in their judgments of conduct (Kellmer Pringle & Edwards, 1964). Aronfreed (1968, p. 266) argues that it is much more useful to attempt to characterize the child's cognitive capacities with some precision than to rely on "standardized psychometric tests of intelligence" which are "designed to make rather gross predictions". Banta (1968) similarly devalues tests of intelligence concerned with "what the child knows

how to do", emphasizing that it is much more important to find out how the child behaves "when he doesn't know what to do".

Kohlberg (1964) has stressed the importance of specific cognitive capacities in relationship to moral judgments and moral behaviour. In Kohlberg's view cognitive and moral capacities are inextricably linked. Among the ego-factors specifically mentioned as important for morality is the ability to anticipate future events, selecting more important outcomes. A child's anticipation of the future, and particularly his tolerance for delay of reward is an example of impulse-control which involves cognition. In order to regulate his impulse-expression by delay of gratification, at the very least a child must have the ability to order events along a time dimension. One group of studies (Seltzer & Bellar, 1968, 1969) has shown that children's understanding of time concepts relates significantly to both their level of moral judgments and their moral behaviour as rated by teachers. These significant results were found at different age levels.

A number of studies have confirmed that tolerance for delay of reward is significantly related to other aspects of self-control. Thus, children showing a willingness

to delay reward also show a high degree of persistence and express less aggression in nursery school (Livson & Mussen, 1957). Mischel (1961) found that preference for delayed reward was positively associated with measures of achievement motivation and social responsibility scores; in another study it was found that children who preferred larger delayed rewards exhibited less cheating than children who preferred immediate smaller rewards (Mischel & Gilligan, 1964).

Another ego-factor stressed by Kohlberg (1964) is the capacity to maintain stable, focused attention. The relationship between attention and morality was demonstrated in an accidental meeting of two studies. In the first study the measure of attentiveness was reaction time with concurrent GSR recordings. The morality study used teacher ratings and scores on cheating tasks (Grim, Kohlberg & White, 1968). It was found that both moral ratings and tests of cheating loaded on the same factors as the psychomotor and psychophysiological variables. For example, average increase of reaction times correlated significantly with ratings of untrustworthiness and both variables defined a factor which the authors labelled "Stable Control" or "Task Conformity". Similarly, a second factor (called "Inner Stability") was

defined by both the cheating measures as well as psychomotor and psychophysiological measures: for grade one children, basal GSR correlated significantly with cheating; at the grade six level, increase of "non-specifics" (sporadic drops in skin conductance) and high reaction time variability loaded together with high cheating scores.

The ability to maintain stable, focused attention and to control impulse expression is tapped by two tests designed to measure the cognitive styles of reflection-impulsivity and field dependence-independence. The test of reflection-impulsivity is a visual matching task which centers upon the individual's habitual speed of decision-making in situations providing several simultaneous and equally likely response alternatives (Kagan, Rosman, Day, Albert & Phillips, 1964). Field dependence-independence reflects individual differences in the ability to separate an item from the field in which it is embedded (Witkin, Syk, Paterson, Goodenough & Karp, 1962). The field-independent individual is better able to overcome a confusing, embedding context when isolating figure from ground. It could be argued that the field-independent and reflective cognitive styles are similar in that both involve systematic scanning and comparison. Furthermore, both cognitive styles depend upon the capacity to delay responding until a correct

solution is found. It has been shown that more reflective children of various ages are significantly more field-independent (Campbell & Douglas, in press) and that both reflection and field-independence are significantly related to attention as measured by a continuous performance task (Douglas, 1971).

Both cognitive styles have been shown to relate to a wide range of personality and cognitive skills. Witkin et al. (1962) have demonstrated that field-independent boys are less passive and conforming, show more concern with intellectual mastery, and are more emotionally independent than field-dependent boys. Furthermore, field-independent boys display better control over impulses as inferred from responses to projective tests. Witkin's descriptions are similar to those of reflective boys who have been shown to have better motor control (Kagan et al., 1964) and to show more concern with success on intellectual tasks (Kagan, Pearson & Welch, 1966). It has been demonstrated, too, that the field-independent and reflective child is more optimistic about his ability to cope with threatened frustration (Campbell & Douglas, in press).

Crowley (1968) has suggested that "centration" or the cognitive incapacity to focus on relevant details is

the most important of the ingredients which Piaget mentions as having a bearing on moral judgments. He cites the evidence that training to focus on relevant cues even in non-moral situations tends to increase the quality of mature moral judgments in regard to intentions (1968). It has also been shown that "egocentrism", or the inability to shift perspective, is related to level of moral judgment (Fenyes, 1966; Selman & Rebelsky, 1969). The present study aims to test the hypothesis that a field-independent and reflective cognitive style relates to a higher level of moral maturity. The tests of these specific cognitive capacities show little, if any, relationship to verbal intelligence (Kagan & Kogan, 1970). Thus, they serve the purpose of tapping specific cognitive skills.

Training and the Stages of Morality

A number of experiments have been designed to show that children will shift their moral orientation after relatively brief training periods. It has been shown that children will learn to increase their use of intentions by observing models (Bandura & McDonald, 1963) or by other methods (Crowley, 1968). Several theorists agree that these studies call into question the existence of developmental stages (Aronfreed, 1968, p. 264; Hoffman, 1970, p. 273).

Bandura and McDonald (1963) exposed their subjects (boys from five to eleven years) to a social interaction in which a child's own judgments of the severity of transgressions were exposed to an adult model giving verbalized rationales of a contrary nature. They found that regardless of whether the child had originally been oriented towards the intentions or consequences of a transgression, he showed substantial shifts of judgment, and corresponding justification in the direction of the adult's orientation. Bandura (1969) interprets these findings as fatal to the basic tenets of the Piagetian view.

Turiel (1966) has suggested that the issue is somewhat more complicated and that Bandura and McDonald's anti-Piaget conclusions were premature. Turiel (1965) summarizes the essence of the developmental view in the following way:

> 1. Morality is the gradual product of development where the individual invariably progresses through certain stages.
> 2. The stages of development are defined by structural wholes, and not by any isolated plateau of behaviour.
> 3. The passage from an inferior stage to a superior stage is equivalent to an integration (or synthesis): The inferior becomes part of the superior.

Points 2 and 3 above stress the importance of distinguishing

between a mere superficially learned response and a true change in cognitive structure. Turiel criticizes the Bandura and McDonald study for simply reinforcing one of two possible answers without analyzing the quality of response and pattern of explanations to get at the underlying thought structure. Another deficiency in their procedure was the administration of the post-test immediately after the experimental treatment. Smedslund (1961) has suggested that duration over time should be the main criterion in regard to whether a genuine change in cognitive structure has occurred. Other studies replicating Bandura and McDonald's findings have shown that the effects of training do persist over time (e.g., Crowley, 1968). Unfortunately, in most of the training studies identical material has been used in post-testing so that the possibility of response bias has not been eliminated.

Turiel (1966) found evidence for the hypothesis that moral stages are successively advanced cognitive levels. He exposed adolescents at various of Kohlberg's stages to an experimenter presenting arguments for a stage below or above, once or twice removed from the child's own level. He found that subjects were most likely to progress to the next higher stage and not to "leap-frog". Turiel suggests

that the effect of training is to stimulate the child by expressing contradictory points of view and allowing him to advance in the direction predicted by developmental trends. In order for the material to be effectively stimulating, it must be at the next higher stage.

Cowan et al. (1969) found that it was easier to train low level children to become high level than vice versa. They had hypothesized this finding on the basis of the developmental approach. However, they did find, contrary to their hypothesis, that a fair number of children could be trained downwards.

Bandura (1969) has argued that the Cowan findings only replicate the original Bandura and McDonald (1963) study in its essential elements. Bandura stresses the fact that in both studies very few of the children tested were "pure" cases showing either low level or high level moral judgments. The great majority of children (in both studies) were "mixed", showing both low level and high level responses. Bandura concludes that a developmental theory is unnecessary to account for a child's level of morality; he believes that this can be adequately explained in terms of the discriminations the child has learned:

> Both sets of empirical findings thus lend support to a conceptuali-

> zation of judgmental behaviour that assumes the existence of a discriminative rather than a uniform stage-determined responding. (1969, p. 276)

Part of the difficulty in resolving this particular controversy resides in the fact that all the training studies have been restricted to school-aged children. Since Bandura has put so much emphasis on the lack of "pure" cases, it would be interesting to discover to what extent there are low level "pure" cases in the moral judgments of preschoolers. It was hoped that the present study would shed some light on the developmental versus learning theory debate both by investigating the moral conceptions of very young children, and by attempting the type of training techniques with them that have proved successful at other ages.

The Purpose of Study and Hypotheses to be Tested

One aim of the present research was to develop an instrument sufficiently simple and lifelike to investigate moral judgments of preschoolers. Our hope was that this instrument would help reveal the thoughts and conceptualizations underlying the young child's notions of goodness and badness. We were interested in the qualitative differences in responses as they might occur in the developmental process during the ages three through six.

A second general aim of the research was to test the effect of training on moral judgments at several age levels including the preschool range. The main purpose was to evaluate whether or not training of moral judgments would last over time, and generalize to somewhat different material.

The following predictions were tested:

(1) It was expected that moral judgments within the preschool range would be age-dependent as has been found in studies with older children. In accordance with Kohlberg's modifications of Piaget's theory, it was expected that there would be elements of autonomous morality even among the youngest children.

(2) In testing the moral judgments of Grade One children we expected to find a clear dichotomy between "intentional" and "non-intentional" children, based on their responses to a majority of the stories. In accordance with the findings of other researchers we did not expect to find many "pure" cases.

(3) A relationship was expected at all age levels between cognitive styles of reflection-impulsivity, field dependence-independence and level of moral maturity. Those children with higher moral judgments were expected to be both more field-independent and more reflective.

(4) It was anticipated that moral judgment level would relate to teachers' ratings of children's behaviour. Higher level children were expected to be seen as more socially mature and more confident. They should be seen as less impulsive and better able to exert self-control.

(5) It was anticipated that sharing behaviour would relate to level of moral judgment.

(6) It was expected that children making more sophisticated moral judgments would have parents emphasizing psychological discipline, and the use of reasons and explanations.

THE PRESENT STUDY

The present study consisted of four separate studies. The first two were done with first graders and used the story technique for eliciting moral judgments. The other two were with preschoolers and films were used as the medium for eliciting moral judgments. The first looked at moral judgments in six-year-olds as related to behaviour and cognitive style, as well as pare tal data on child-rearing practices. The second was concerned with the training of moral judgments within this same first grade sample.

The third study investigated the moral judgments of preschoolers, in relationship to behaviour, cognitive style and parental practices, and the fourth looked at the training of moral judgments in preschoolers.

Since the instruments used for the two age levels were somewhat different, they are described separately in the Instruments sections preceding the first and third studies.[1]

Study I
Moral Judgments in Six-Year-Olds

Subjects

The sample used in this study was composed of boys

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1. Pilot studies showed that the films designed for use with preschoolers were inappropriate for our older samples. Appendices C and F describe the stories and films respectively.

and girls of predominantly middle-class background drawn from a wealthy suburb of Montreal inhabited mainly by professionals. There were 15 boys and 14 girls, ranging in age from six years three months, to seven years three months, with a mean age of six years eight months.

Procedure

Each child was seen individually at the school on three different occasions. During the first session each child was read Piaget-type stories to elicit moral judgments. The second session was for the administration of the reflection-impulsivity test and a test of verbal intelligence.[1] At the final session the field-independence test was administered. This last test was given by a different experimenter from the one who saw the child at the other two sessions. Each child was seen over the course of a two-week period, and the whole period of testing lasted about six weeks.

The teacher of the class was asked to complete a Pupil Personality Evaluation Form (see Appendix A) for each of the children in the class. A Parents' Questionnaire concerning discipline and related matters was sent to the parents of the children in the study (see Appendix B).

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1. The test was the Peabody Picture Vocabulary Test which has been shown to be appropriate for preschoolers and on which numerous reliability and validity studies have been done (Dunn, 1965).

Instruments

Stimulus Items for Moral Judgments

The technique for eliciting moral judgments was based on Piaget's (1932) procedure. He presented children with pairs of stories each of which described a well-intentioned act which resulted in considerable material damage, contrasted with a selfishly or maliciously motivated act producing minor consequences.

Piaget's stories have been modified somewhat in wording or content by various researchers for use in the North American context (e.g.,Boehm, 1962; Bandura & McDonald, 1963). The present study used a set of stories which have been subjected to an item analysis showing that they adequately discriminate between high level and low level children (Crowley, 1968). Here is an illustrative stimulus item (the complete set of stories appears in Appendix C):

> 1. John was in his room when his mother called him down to dinner. John goes down, and opens the door to the dining room. But behind the door was a chair, and on the chair was a tray with fifteen cups on it. John did not know the cups were behind the door. He opens the door, the door hits the tray, bang to the fifteen cups, and they all get broken.
>
> 2. One day when Henry's mother was out, Henry tried to get some cookies out of the cupboard. He climbed up on a chair,

> but the cookie jar was still too high, and he couldn't reach it. But while he was trying to get the cookie jar, he knocked over a cup. The cup fell down and broke.

Eight such pairs of stories were told to the child. Each child was asked to repeat the main details of the stories as best he could. When the experimenter was satisfied that he could do this he proceeded to ask the child to judge: "Who did the naughtier thing?", and to provide a reason for his choice.

In accordance with the procedure of other investigators, children are classified as "intentional" or "non-intentional" on the basis of their responses to the stories. A child is classified as non-intentional if he tends to choose consequences over intentions for the majority of the stories, and vice versa. On the basis of earlier testing and the work of other researchers (e.g., Crowley, 1968), it was expected that most children would clearly fall into one of the two groups.

Teacher Rating Scale

The teacher of the class was asked to complete the Pupil Personality Evaluation Form. This was developed as a test to measure teachers' perceptions of their pupils' personalities and classroom behaviour. Test-retest

reliability has been demonstrated to be very high (.88) for the whole test and for individual items (Sutherland & Goldschmid, 1971). A description of the items appears in Appendix A.

Reflection-Impulsivity

The Matching Familiar Figures Test (MFF), a visual matching test was used to measure reflection-impulsivity (Kagan et al., 1964). Reflection-impulsivity is relatively stable in elementary school children for periods up to a year (correlations from .25 to .50) and is consistent over a variety of tasks involving several possible responses (Kagan et al., 1964). In a series of studies, Kagan has demonstrated a variety of differences between reflective and impulsive responders in other situations. Children classed as impulsive make more errors of commission in a serial learning task (Kagan, 1966), make more reading errors (Kagan, 1965), have higher error scores on tests of inductive reasoning (Kagan et al., 1966), and do more poorly on tests requiring visual analysis (Kagan et al., 1964) than their more reflective classmates. These differences hold when age and overall intelligence are controlled (Kagan et al., 1966).

This test consists of fourteen sets of pictures of familiar objects and animals, two practice and twelve test

items. Each child was shown a standard stimulus and asked to choose the one picture from among the six alternatives which was identical to the standard. The standard and six choices were presented simultaneously and S was allowed up to six trials per item. Variables scored were response latency and number of errors. The following instructions were given: "I am going to show you a picture of something you know and some pictures that look just like it. You point to the picture on the bottom page which is just like the one on the top page." After the practice items, E said: "Now we're going to do some that are a little bit harder. There will always be one picture on the top page and six on the bottom. Only one is just like the one on the top page. You find the picture that is the same and point to it." When S made an error, he was told to look again, and find the picture that was just like the one on top. If after six trials, S still got it wrong, the next item was administered. Stimuli included pictures of a cowboy, cat, telephone, house, and other familiar objects.

Field Dependence-Independence

The Childrens' Embedded Figures Test (CEFT) developed by Karp and Konstadt (1963) was used to measure field dependence-independence. Studies of field-dependence have

demonstrated stable and consistent differences in the ease with which children can overcome the influence of an embedding context (Witkin et al., 1962). In one long term study boys were followed from the age of 10 until they were 24. The stability of their position in the group is impressive with correlations as high as .66 over a 14-year period (Witkin, Goodenough & Karp, 1967). Reliabilities are high (split half reliabilities from .83 to .90) as are correlations with the adult version (.70 to .86) in older children (Karp & Konstadt, 1963). Children tend to show an increase in field-independence with age though they tend to maintain their relative position in the group (Witkin et al., 1967).

The Childrens' Embedded Figures Test consisted of two series of simple figures which had to be isolated from more complex designs. The first series was made up of eleven figures in which a triangle of specific dimensions was embedded (tent series). The second (house series) consisted of fourteen items with a house-shaped polygon embedded. The score was the total number of figures correctly located. Only one trial was allowed per item and there was no time limit. Since the items were arranged in order of increasing difficulty, testing was discontinued after five consecutive failure. Prior to administration of the items,

there was a demonstration of the embedding process and two practice items were given. Once it was clear that S understood what to do, a cut-out of the simple figure was placed on the table and E said: "There is a tent just like this one hidden in this picture. Can you show me where it is?" After S responded, the complex figure was removed and S was shown the next one, and so on through the tent series. An additional practice item was administered prior to the house series and then those test items were given.

Results

Moral Judgments

Of the twenty-nine children seen, seven were easily classified as "intentional". Six of the seven responded in terms of intentions to all eight pairs of stories, while one girl gave high level responses to five of the eight. A decision was made to include this one "mixed" case in the intentional group.

The other twenty-two children all responded to seven or more of the pairs of stories in low level style, emphasizing consequences as opposed to intentions. These children were easily classified as "non-intentional".

There were three girls and four boys in the intentional group with a mean age of six years eight months. The twelve

girls and ten boys classified as non-intentional had the same mean age.

Moral Judgments and Cognitive Style

As can be seen in Table 1, children who are classified as "intentional" (high level) are found to be more reflective and more field-independent as measured by the cognitive style tests. They do significantly better on the Embedded Figures Test ($t=2.14$, $df=27$, $p < .05$), and have a significantly longer latency period on the Matching Figures Test ($t=2.28$, $df=27$, $p < .05$).

The two groups do not differ significantly on the I.Q. scores obtained from the Peabody ($t=.6$, $df=27$, $p > .05$). The mean score for the intentional group is 112, but it should be noted that this was an extremely diverse group, as the Standard Deviation (22.2) indicates.

It should be noted that none of the significant differences reported here and subsequently is diminished if the one "mixed" subject in the intentional group is excluded.

Moral Judgments and Behaviour

The ratings done by the teacher of the class are summarized in Table 2. Only twenty-seven children were

TABLE 1

Means and Standard Deviations for Intentional and Non-Intentional Children on Cognitive Style Tests and Verbal Intelligence Measure

Variable	Means and Standard Deviations* Intentional (N=7)	Non-Intentional (N=22)	t value
Verbal Intelligence	112 (22.2)	108 (10.9)	0.6
Reflection: Number of errors	9.7 (5.4)	11.5 (4.2)	0.9
Reflection: Latency in no. of seconds	15.0 (6.5)	10.3 (4.1)	2.28**
Field-Independence	15.3 (5.9)	10.9 (4.2)	2.14**

* Standard Deviations are in parentheses.
** Significant at the .05 level.

rated as two had moved from another classroom and were not well-known to the teacher. Table 2 lists the means for both groups on all measures.

The "intentional" children are seen by the teacher as significantly more reflective ($t=3.53$, $df=25$, $p < .01$), and significantly more attentive ($t=4.26$, $df=25$, $p < .001$). The high level children do not differ as a group from low level children on Verbal Skill ($t=.11$, $df=.25$, $p > .05$). Thus, the teacher ratings seem consistent with the test results discussed above.

The intentional group is also seen by the teacher as significantly more responsive, more enthusiastic, and as having a greater chance of future success. The intentional group is rated more highly on all the measures although many of the differences fall short of significance. It is of interest that the teacher does not rate them as significantly higher in General Appeal ($t=.88$, $df=25$, $p > .05$). There is also no significant difference between the two groups on the Discipline measure ($t=.71$, $df=.25$, $p > .05$). Both high level and low level children tend to be classified as "naughty from time to time" (mean score of three). Thus the teacher does not see the intentional children as the ones easiest to discipline.

TABLE 2

Means and Standard Deviations for Intentional and Non-Intentional Children on Teacher's Ratings on the Pupil Personality Evaluation Form

Variable	Means and Standard Deviations+ Intentional Ss (N=7)	Non-Intentional Ss (N=20)	t value
Attention	3.50 (1.20)	2.25 (0.76)	4.26***
Activity and response	3.50 (1.73)	2.40 (1.00)	3.20**
Initiative	3.30 (0.98)	2.60 (0.88)	1.87 n.s.
Need for praise	3.10 (1.18)	2.70 (0.24)	1.29 n.s.
Perseverance, effort	3.20 (2.40)	2.60 (0.79)	1.03 n.s.
Confidence	3.10 (1.18)	2.60 (0.79)	1.35 n.s.
Rapport with peers	3.50 (2.45)	2.90 (0.54)	1.14 n.s.
Intellectual stimulation at home	4.00 (1.00)	3.00 (0.79)	2.78**
Probable future success	3.90 (0.28)	3.00 (0.46)	4.09***
Enthusiasm and interest	3.30 (1.14)	2.30 (0.33)	3.34**
Verbal Skill	3.10 (0.54)	2.80 (0.61)	1.11 n.s.
Discipline	3.00 (0.59)	2.80 (0.41)	0.71 n.s.
Parental attitude	3.70 (0.83)	3.40 (0.21)	1.33 n.s.
Participation	3.40 (1.12)	2.90 (0.62)	2.20*
Physical appearance	3.40 (1.41)	3.10 (1.31)	0.44 n.s.
Reflection-impulsivity	3.70 (0.84)	2.85 (0.54)	3.53**
General appeal	3.40 (1.00)	3.05 (0.68)	0.88 n.s.
Adjustment	3.20 (1.73)	2.70 (0.56)	1.51 n.s.

+ In parentheses
* .05 level
** .01 level
*** .001 level

Parental Data and Moral Judgments

Parents of six of the seven high level and fifteen of the twenty low level children completed questionnaires. The others did not despite considerable effort to involve them. The data are summarized in Table 3. Of the twenty-one parents completing the questionnaire, fourteen were classified as "corporal" punishers and seven as "psychological". An admission that power assertion would be used as first or second choice was necessary for the "corporal" classification. The seven parents classified as "psychological" either gave definite preference to non-power assertive techniques, or did not mention power assertion as a possible discipline technique.

The hypothesis that children with higher level moral judgments would have primarily "non-corporal" parents received no support. To the contrary, a larger percentage of these children (five of the six) had parents admitting the use of corporal methods, although the difference was not significant (see Table 3).

The majority of parents reported that they had concentrated particularly upon teaching "intentionality". However, there seemed to be no relationship between those reporting that they stressed this teaching and the data obtained from their children. One-third of the parents denied attempting to teach "intentionality" and this group included

TABLE 3

Parental Data for High Level and

Low Level Children of 6 Years

Variable	Parental Classifications for Intentional (high level) Children (N=6)	Non-Intentional (low level) Children (N=15)	CHI Square (with Yates' correction)	
Discipline:				
Corporal	5	6		
Non-corporal	1	9	1.72	n.s.
Intentionality Training:				
Often stressed	4	10	0.00	
Only occasionally	2	5		
In Charge of Discipline:				
Mother primarily	3	6	.004	n.s.
Mother and father both	3	9		
Temptation:				
Will definitely not yield if warned	6	13	.014	n.s.
Will almost surely yield	0	2		

parents of high level as well as low level children.

Twelve parents reported that the mother is primarily involved in discipline, while nine said that mother and father are equally involved. There is no obvious relationship between these data and the scores their children received on level of moral judgment.

In response to the question about a hypothetical transgression, all but two parents insisted that their child would almost surely not yield to temptation if he had been repeatedly warned. (These two children were both "low level" in moral judgments.)

Study II

The Training of Moral Judgments in Six-Year-Olds

Subjects

All those children classified as "non-intentional" (low level) in Study I were used as subjects in the second study. This included twelve girls and ten boys.

Procedure

Pretesting Phase

The children were divided into three groups (two training groups and one control group) equated for age,

I.Q., ratio of boys to girls and scores on the cognitive style tests. (The raw data appear in Appendix D.)

Training Phase

Only the children in the two experimental groups received training during this phase. In one experimental group (the Reinforcement Training group) the experimenter saw the children two at a time, read them pairs of stories (concerned with accidental and intentional acts), corrected low level responses and explained why they were "wrong". For example, a child might be told to focus upon relevant material such as the hero's intentions or the knowledge that was available to him. Discussion of the general principle of intentionality was also promoted. Candies and verbal reinforcement ("that's right, very good!") were offered for high level responses and explanations.

In the second training group (the Peer Model Training group), a peer model who had been previously classified as "intentional" was present along with the one child being trained and the experimenter. This peer model would correct low level answers and give proper explanations as well as promote discussion. Thus, this group consisted of two children and an adult like the first group but one child was already "intentional".

Training sessions lasted approximately half an hour.

They were terminated when the low level children had satisfied the experimenter that they had learned the concept of intentionality. The criterion used was the child's ability to give spontaneous high level responses to five consecutive pairs of stories together with proper explanations.

Posttesting Phase

During posttesting, subjects in all three groups were individually tested on eight pairs of stories, including four pairs similar in construction but not previously seen. All but six children (three controls and three experimentals) were tested by an experimenter different from the one who had been involved in pretesting and training.

The time lapse between the end of training and posttesting varied from eight to nineteen days, with a mean of thirteen days. Four weeks later all trained subjects were given a follow-up test which included stories of the type originally used plus another group of stories which matched badness of intentions and magnitude of consequences in a variety of ways. It will be recalled that all the pairs of Piaget-type stories used in this and other studies match good intentions-large damage against bad intentions-small damage. To control for the possibility of a response set, we designed pairs of stories which compare, for example,

bad intentions-large damage aginst good intentions-large damage or other stories where the intentions are about equally bad. (The complete list of stories appears in Appendix C.)

Results

The results of training are summarized in Tables 4 and 5. If one compares either experimental group's mean net improvement with the control group, the difference is highly significant ($t=5.4$, $df=13$, $p < .001$ for model group; $t=4.6$, $df=12$, $p < .001$ for reinforcement group). It is clear that both training methods were extremely effective in obtaining this change.

There was no significant difference in the effectiveness of the methods used in the two experimental groups ($t=.18$, $df=13$, $p > .05$). Both a peer model and a reinforcing adult were about equally effective in achieving results. Training proved effective for practically all the children in the sample: of all the children trained only three did not respond consistently with high level judgments. Two of these responded to about half the pairs of stories in high level fashion, showing a "mixed" reaction; one child showed no improvement despite training.

TABLE 4

Means and Standard Deviations of the Differences Between Pre and Posttest Scores of Stories of Moral Judgment

Group	Pretest	Posttest	Mean Difference
Peer Model Training (N=8)	.25 (.458)	6.35 (1.60)	6.10 (2.0)
Reinforcement Training Group (N=7)	.55 (.806)	6.40 (4.8)	5.88 (2.2)
Control (n=7)	1.0 (1.05)	1.43 (1.7)	.43 (2.2)

Standard Deviations are in parentheses.

TABLE 5

Comparison of Means for Training Experiment

With Six-Year-Olds

Groups Compared	Means	t value
Control Pretest and Control Posttest	1.0 1.43	.21 n.s.
Model Training and Control Differences	6.10 .43	5.40***
Candy Training and Control Differences	5.85 .43	4.60***
Model Training and Candy Training Differences	6.10 5.85	.18 n.s.

*** $p < .001$

The control group's mean posttest score does not represent a significant improvement over its pretest score ($t=.21$, $df=6$, $p > .05$). However, one of the control subjects did show a large improvement with the mere passage of time.

The follow-up tests demonstrated that the majority of experimental children had maintained the gains produced by training. These results appear in Table 6. The data are summarized according to the type of stories. On the traditional Piaget-type stories, most experimental children responded with high level judgments to all of them, four children to all but one pair, and one child did very poorly. (This is the same child who showed no improvement at first posttesting.) Exactly the same results were obtained with one newly-designed group of stories: those matching bad intentions-large damage against good intentions-large damage. A high level response to these stories had to consider intentionality, since badness of consequences was held constant.

We included one group of stories, however, which we judged to be the most difficult. These were the ones matching bad intentions with differing consequences. High level non-trained children had been able to respond appropriately

TABLE 6

Follow-Up Data for Trained Six-Year-Olds on New Pairs of Stories (N=14)

Type of Story	No. of Intentional Responders	No. of Low Level Responders
Same as original stories (4)	9 (all 4)	4 (3 of 4 correct responses) 1 (0 of 4 correct responses) 5 Total
Int. large material damage pairing	13 (all 4)	1 (1 of 4 correct responses)
A pair of 2 intentional stories	4 (both pairs)	9 (0) 1 (1 pair correct) 10 Total

* Children classified as intentional gave high level responses to all stories.

to these stories (e.g., "neither is worse", or "both are about the same"). Of our trained children, four out of twelve responded properly to all of this set, two others to half the set, and the rest either responded wrongly ("one was naughtier than the other") or in a few cases said they didn't know.

Study III

Moral Judgments of Preschoolers

Subjects

Children were drawn from two different areas of Montreal, one sample being primarily children of middle-class background, and the second sample of mainly low income families. The first sample comprised thirty-five children (eighteen boys and seventeen girls) ranging in age from 3 years 5 months to 5 years 11 months, with a mean age of 4 years 3 months. The second sample was made up of thirty-seven children (seventeen girls and twenty boys) ranging in age from 3 years 2 months to 6 years with a mean age of 4 years 10 months.

An additional sample of eight 3-year-olds ranging in age from 3 years 1 month to 3 years 4 months was also seen.

Procedure

Each child was seen individually at the nursery school on two different occasions. The first session was for showing films designed to test moral judgments, and for administering a test of sharing. At the second session two cognitive style tests and a test of verbal intelligence was administered.

In the first sample the same experimenter saw all the children on both occasions. In the second (lower-class) sample, all but seven children were seen by two different experimenters on the two occasions. Each of the eight children in the small third sample were seen by two different experimenters. Testing took about eight to ten weeks for the two large samples, and about two weeks for the small sample.

Two teachers who knew all the children were asked to complete Beller's Nursery School Rating Scale (Appendix E) for each individual child. Parents were asked to complete a questionnaire concerning discipline and other related matters. (This is described in Appendix B.)

Instruments

As visual analogues of the Piaget-type stories used with older children, a set of films was developed to test

the moral judgments of preschoolers. The films, which were produced and adapted with the help of film specialists depict simple situations which tap judgments concerning relative goodness or badness. (Appendix F describes the films in detail along with the scoring system for responses.) There are films with accidentally-caused material damage, intentionally-caused damage, and damage with responsibility unknown. Some films depict inappropriate punishment for well-intended acts.

All the films used in the present study had been previously tested in a pilot study with preschoolers. It was found that very young children (three-year-olds or older two-year-olds) would attend to the questioning, making moral judgments that could be rated.

The films last from two to three minutes and appear on an independent film-loop designed for showing on an automatic (non-winding) projector. All the films are silent and all but one are coloured. Adult professionals play the child role in most of the films; one film uses a three-year-old child.

The films were introduced as follows: "We have some movies here. They're about real things that really happened to boys and girls. They're quite short. Watch carefully

and let's see what happened." After presentation of the film, the child was asked, "What happened?" This was then followed up with the question, "What did you think of the boy?" "Why?" or "How did it happen?" whichever was appropriate.

At the time of showing the films to the first (middle-class) sample, seven films were used to obtain the index of moral maturity, with a total possible score of twenty-one. An eighth film entitled Blocks (in black and white) became available and was added to the set for use with the lower-class samples, thus making the total possible moral maturity score twenty-four.

In addition to the films concerned with moral judgments two other films were included. These films depicted simple situations without requiring any judgments of goodness or badness. In order to help elicit verbalization on the part of the child in response to the question "What happened?" one of these neutral films was always shown first (Drum). The order of presentation of the films was the same for all children and was as indicated in Appendix F.

A Scoring manual for coding the responses to the films was prepared. (This is included in Appendix F.) An independent rater used this manual to score a random sampling of responses from tape recordings and written records of

the present study. Ninety-six percent agreement was achieved as only eleven of two hundred and thirty-two film scores were different in the two ratings.

Teacher Ratings

The Beller Rating Scale is a social behaviour scale in which items are directly related to the child's interactions with peers and teachers, particularly regarding the child's level of aggression, dependency and autonomy. (The items are fully described in Appendix E.) These scales have been demonstrated to have high reliability over time with correlations from .4 to .8 (Emmerich, 1966). Emmerich (1966) also demonstrated good inter-rater correlations.

Sharing Test

Each child was shown a dish of candies and told he could take as many as he wished. He was told, however, that this was all that were left and whatever remained would be for his friend. (This was always a child previously named in conversation as a friend of the subject.) A child who took five and left five was considered as demonstrating sharing behaviour and was given a score of three. Pretesting had shown that some children will quickly take as many as they can. Others will quickly take a very few leaving

the majority. It was decided to give a score of two to a child leaving six to nine candies, and a score of one to those taking six to ten.

Reflectivity-Impulsivity

The Early Childhood Familiar Figures Test (ECFFT) was especially designed for use with preschoolers (Banta, 1968). Although there is much evidence of the reliability and validity of the reflectivity tests with older children, Banta has not yet reported these data for the preschool range. The ECFFT consists of three training pictures, and the tester says: "Look at this picture". Then brushing his hand lightly over the two figures on the opposite page, the tester says: "Find the one on this page which is just like it". When the tester is satisfied that the child grasps the instructions, he proceeds to give all twelve test pictures. Scores range from zero to twelve, with a high score indicating reflectivity. Latency scores are not used with preschoolers (Banta, 1968).

Field-Independence

The Early Childhood Embedded Figures Test (ECEFT) was designed for use with preschoolers (Banta, 1968). The figure to be located in the embedded context is in the shape

of a cone. The cut-out cone figure is placed on the table to the tester's left with the point of the cone toward the child. The child is asked: "What is this?" He usually replies but if he doesn't the experimenter says that it looks like an ice cream cone. Three training pictures are used to assure that the child understands what is expected. The following words are used: "There is a picture of a cone on this page just like our cone. Put our cone exactly on top of the cone on this page". After the training pictures, fourteen test pictures are given always using the identical words as above. After the cone is placed, the tester quietly says, "um-hum". Responses to each of the fourteen test items are scored one or zero. A high score indicates field-independence, a low score field-dependence.

Results

Moral Judgments

Correlations of the main measures with age and intelligence are listed in Table 7. The hypothesis that maturity of moral judgment increases gradually during the school years is confirmed. In the first sample, level of moral judgments correlates .583 with age, in the second sample .572 . Both correlations are significant at the .01 level with df=33 and df=35 respectively. Since the other main measures are

TABLE 7

Correlations Between Experimental Variables

Age and Verbal Intelligence

Sample I (Middle-Class)
N=35, df=32

Measure	Age	Intelligence
Moral judgment	.583**	.234
Field independence	.611**	.224
Reflectivity	.677**	.219
Teacher's Ratings:		
Aggression	-.555**	-.110
Dependence	-.504**	-.226
Autonomy	.399*	.177

Sample II (Lower-Class)
N=37, df=35

Moral judgment	.572**	.175
Field independence	.615**	.185
Reflectivity	.614**	.180
Teacher's Ratings:		
Aggression	-.405*	-.102
Dependence	.210	-.056
Autonomy	.212	-.041

* $p < .02$
** $p < .01$

also age dependent (see Table 7), partial correlations to remove the effect of age were calculated for all the data for both samples.

Results on the Peabody test were converted to I.Q. scores. Although moral judgments and the cognitive style tests are positively correlated with verbal intelligence, these correlations are small for both samples and non-significant.

Moral Judgments and Cognitive Styles

Tables 8 and 9 give the full correlation matrices for both samples. In both samples, reflectivity is significantly correlated with level of moral judgment (Middle-class sample, $r=.42$, $df=32$, $p < .01$; Lower-class sample, $r=.68$, $df=34$, $p < .01$). For the second (lower-class) sample field-independence is also significantly correlated with level of moral judgment ($r=.57$, $df=34$, $p < .01$).

These results were replicated in the third sample, a smaller group of children more homogeneous in age. The data are summarized in Table 10. Here again significant positive correlations between level of moral judgment and cognitive styles were found.

TABLE 8

Intercorrelations Among Moral Judgments, Cognitive Styles, and Teacher's Ratings of Behaviour for Preschool Children

Sample I (Middle-Class)
N=35, df=32

Measures	Mor. Judg.	Field Ind.	Refl.	Agr.	Dep.
Moral Judgment	.05				
Field Independence	.422**	.62**			
Aggression	-.435**	-.27	-.289		
Dependence	-.260	-.105	-.120	.320	
Autonomy	.16	.22	.27	-.23	-.22

NOTE: The effects of age have been partialled out.

** $p < .01$, two-tailed.

TABLE 9

Intercorrelations Among Moral Judgments, Cognitive Styles, and Teacher's Ratings of Behaviour for Preschool Children

Sample II (Lower-Class)
N=37, df=34

Measures	Mor. Judg.	Field Ind.	Refl.	Agr.	Dep.
Moral Judgment	.570**				
Field Independence	.68**	.62**			
Aggression	-.4**	-.49**	-.49**		
Dependence	-.167	-.113	-.133	.308	
Autonomy	.250	.295	.203	-.061	.062

NOTE: The effects of age have been partialled out.

** $p < .01$, two-tailed.

TABLE 10

Intercorrelations Among Moral Judgments, Verbal I.Q. and Cognitive Style Tests in a Group of Three-Year-Olds (37 to 40 months)

Measures	Moral Judg.	Refl.	Field Ind.
Moral Judgments			
Reflectivity	.82**		
Field Independence	.87**	.90***	
Verbal Intelligence	-.25	.28	.29

NOTE: The effects of age have been partialled out.

** $p < .01$

***$p < .02$ (N=8, df=5)

Sharing

The results of the sharing task were radically different for middle-class and lower-class samples. For the middle-class sample it was found that only seven children shared half and half, twenty-two children took one to four candies, six left as few as none to four. Using the three-two-one scoring system, it was found that sharing was significantly correlated with age ($r=.514$, $df=32$, $p < .01$), and with level of moral judgment after age is partialled out ($r=.607$, $df=32$, $p < .01$). A separate analysis showed those receiving a score of three (sharing half and half) to be older and have higher moral judgment scores than those with a score of two (those taking a few candies). The raw data appear in Appendix G.

With the lower-class sample, it was impossible to test the relationship between sharing behaviour and other indices, for a full 89% of the children shared the candies equally, obtaining the full score of three. Many of the children who were able to divide the ten candies in half were still unable to count properly. Only two boys (one of 4 years 7 months, the other 5 years 1 month) and two girls (3 years 2 months, and 3 years 3 months) did not share equally. They took just one or two candies, thus getting a two score.

Moral Judgments and Teacher's Ratings

In both samples it was found that teacher's ratings of children's aggression were significantly correlated with level of moral judgment. Children with higher moral judgment scores tended to be rated as less aggressive ($r=.43$, $df=32$, $p < .01$, for middle-class sample, and $r=.40$, $df=35$, $p < .01$, for lower-class sample).

There is a tendency also for the children to be rated as less dependent and more autonomous when higher in moral judgment level. These correlations fall short of significance in both samples after the partialling out of age.

Comparisons Between Samples

It is of interest that the direction of correlations (positive and negative) is the same for all variables in both samples. Each of the correlational matrices was factor analyzed. In each case, a principal factor solution with just one factor appeared to give the most meaningful description of the data. (The extent to which the single factor accounts for total common factor variance is indicated by the Eigenvalues in Appendix H.)

The Means and Standard Deviations for all variables in both samples are listed in Table 11. Scores for moral judgments ranged from the minimum (seven or eight depending

TABLE 11

Means and Standard Deviations for Variables in Preschool Study

Measure	Mean, Middle-Class Sample (N=35)	Mean, Lower-Class Sample (N=37)	Perfect Score
Moral Judgment	9.228 (3.293)+	12.054 (2.635)	24 (21)+
Verbal Intelligence	107.9 (17.439)	97.892 (18.602)	-
Reflectivity	7.986 (2.886)	7.486 (3.106)	12
Field Independence	7.971 (2.695)	7.865 (3.267)	14
Aggression	25.486 (11.369)	24.514 (13.605)	63
Dependence	37.286 (8.635)	34.892 (9.407)	49
Autonomy	15.171 (4.731)	13.622 (4.669)	21

* Standard Deviations are listed in parentheses.

+ This score is based on 7 films. Pro-rated for 8 films one would have a mean score of 11.3 .

on the number of films) to seventeen (the highest score for the middle-class sample was sixteen). Test scores and ratings fell within approximately the same range for both samples.

Sexes were combined for analysis in both samples, as there were no significant differences between boys and girls within our preschool range. For example, for the middle-class sample, males have a mean moral judgment score of ten, females 8.5 ($t=1.29$, $df=33$, $p > .05$). Likewise for the lower-class sample: males 12.1, females 12 ($t=.036$, $df=35$, $p > .05$).

Parental Data

Table 12 summarizes the parental data from both samples. For the middle-class children, 28 of a possible 35 parents completed questionnaires. One parent per child (usually the mother) completed the questionnaire. Of these 18 could be classified as using techniques which were primarily "psychological", and 10 as using power assertive (corporal) methods. A comparison of means of level of moral judgments of the children of parents in the two groups showed no significant difference ($t=1.2$, $df=26$, $p > .05$).

For the lower-class sample, of 24 parents completing questionnaires, nine emphasize psychological techniques, and fifteen admit using primarily corporal methods. Once again, there is no significant difference between the means

TABLE 12

Parental Data for Both Samples of Preschool Children

Variable	Breakdown of Responses+ Middle-Class (N=28)	Lower-Class (N=24)
Method of Discipline:		
Use power assertion	10	15
Psychological	18	9
Evaluation of Obedience:		
Very important	11	11
Relatively important	15	12
Relatively unimportant	2	1
Yielding to Temptation:		
Yes would	13	13
No, wouldn't	15	11
Sharing:		
Would share	17	16
Would take 8 or 9	11	4
Would take 1 or 2	0	4
Who Involved in Discipline:		
Mother primarily	13	16
Mother and Father	14	8
Father primarily	1	0

+ None of the differences between class samples were significant.

of the two groups of children on moral judgments ($t=.6$, $df=22$, $p > .05$).

A majority of the middle-class parents do not find obedience very important. Eleven mothers do, however, see obedience as very important. The mean of moral judgments of the children in the High Obedience Group does not differ significantly from the Low Obedience Group ($t=.8$, $df=26$, $p > .05$). In the lower-class sample about half the parents considered obedience very important, the other half not. Again there was no significant difference in the means of moral judgments of the children in the two groups ($t=.12$, $df=22$, $p > .05$).

Fifteen of the middle-class parents said they were certain that their children would not yield to temptation if repeatedly warned, while thirteen were almost certain that their children would yield. The two respective mean scores of moral judgments for the children of the two groups were 9.2 and 9.7. These do not differ significantly ($t=.63$, $df=26$, $p > .05$). In the lower-class sample eleven parents predicted no yielding to temptation and thirteen predicted yielding. There is again no significant difference between the means of moral judgments of the children in the two groups ($t=.43$, $df=22$, $p > .05$).

Two other pieces of information were elicited from the questionnaires. The first concerned who was primarily involved in disciplining the children. It is interesting to note that only one of 53 parents of both samples said "Father primarily". (This occurred in the middle-class sample.) All the rest said either "Both parents about the same" (15 middle-class and 16 lower-class parents), or else "Mother primarily" (13 middle-class and 16 lower-class parents). Three of the lower-class parents were widows or separated; for the middle-class sample, all children had both parents in the home.

The other question concerned sharing. A hypothetical situation similar to the experiment actually administered to the child was described to the parent. They were asked to predict whether or not their child would share. Seventeen of the middle-class parents said that their child would share half and half, eleven said that their child would take more than half. Of the lower-class sample, sixteen predicted equal sharing, four said their child would take more than half, and four others said their child would take less than half. On the whole, then, parents tend to believe that their children of preschool age will in fact share equally. In the case of the lower-class sample this prediction was generally accurate, but it did not fit the findings of the

middle-class sample at all.

Study IV

Training of Moral Judgments in Preschoolers

Subjects

The children were drawn from those previously tested on moral judgments in Study III. The first (older) sample consisted of fourteen girls and eight boys ranging in age from five years three months, to six years two months, with a mean age of five years seven months. The second sample comprised somewhat younger children. There were ten boys and four girls ranging in age at time of pretesting from three years three months, to four years one month, with a mean age of three years eight months. All children were drawn from the lower-class sample used in Study III.

Procedure

Pretesting Phase

The index of moral judgment level was the score on the responses to the films. (This procedure is described above in Study III and in Appendix F.) After the pretesting scores had been determined, an outsider not involved in any of these experiments was asked to divide the children into

two groups. The groups were matched by this non-experimenter for sex, age, Peabody I.Q. scores, and initial moral judgment level.

In the five-year-old sample, one group contained seven girls and five boys (this was designated the experimental group). The control group contained seven girls and three boys. The younger sample consisted of six boys and one girl in the experimental group, and five boys and two girls in the control group.

Training Phase

The object of the training session was to increase the quantity and quality of high level moral responses. The general procedure was to act out little skits using puppets, and to reinforce higher level responses related to the situations involved.

The child was invited into a room to play some games with E. After both S and E had seated themselves at a table, E produced five puppets and asked the child to choose a "mummy" puppet and either a "little girl" or "little boy" puppet. The children were quite keen to play with the puppets, and invariably cooperative.

After the child had picked two puppets E asked him whether he wanted to play the role of mother or child.

Then E adapted himself to the role complementary to S's choice.

With the aid of other props, such as toy TV sets, lamps, ashtrays, glasses of water, toy butterflies, and imaginary friends, E proceeded to verbalize and act out a sequence of short skits in which some sort of material damage was done, sometimes accidentally, sometimes not, sometimes with scolding and/or punishment from the puppet-mother, and sometimes not.

After each skit, E asked the child to say what had happened in his own words. E then proceeded to ask the children for some sort of moral judgment. When this was low level, the "correct" answer was verbalized, and the skit was repeated. When the child gave his own high level response, he was rewarded with candy and verbal praise. Reward was withheld for low level responses. Training ceased when the child was able to meet the criterion of eight consecutive high level responses, and thus was judged to have learned "intentionality".

Posttesting

About two weeks after the cessation of training (or six to eight weeks after pretesting) all the children were again shown the films. All children were seen by a second

experimenter who did not know which children had been trained, and which were controls.

Results

Five-Year-Olds

As can be seen in Table 13 there is a significant improvement in the net means of moral judgments of the experimental as compared to the control group ($t=2.42$, $df=20$, $p < .05$). It is clear, however, that the mere passage of time has also had some effect on level of moral judgments. Six of the control subjects have improved their score between pretesting and posttesting. It is interesting to note that these improvements are only from one to three points, whereas some of the experimental subjects improved as much as seven or eight points, and in one case twelve points.

The training seems to have been efficacious and to have generalized to a somewhat different situation. However, it should be noted that two experimental children showed no improvement and in one case there was a decrease in score.

Three- and Four-Year-Olds

Table 14 summarizes the results for the three- and four-year-old group. The overall net improvement on moral

TABLE 13

Means and Standard Deviations+ of Moral Judgments

Before and After Training for 5-Year-Old Study

	Pretest Scores	Posttest Scores	Net Improvement
Trained Group:	11.6 (1.89)	15.3 (4.08)	3.75* (5.19)
Controls:	11.8 (2.09)	13.2 (3.87)	1.4* (1.60)

+ Standard Deviations are in parentheses.

* The difference between the two means of net improvement is significant ($t=2.42$, $df=20$, $p < .05$).

TABLE 14

Means and Standard Deviations+ of Moral Judgments

Before and After Training for 3-Year-Old Study

	Pretest Scores	Posttest Scores	Net Improvement
Trained Group:	11.2 (3.28)	14 (2.15)	2.6* (2.54)
Controls:	10.7 (1.71)	11.12 (2.87)	.42* (2.87)

+ Standard Deviations are given in parentheses.

* The difference between the two means of net improvement is significant ($t=2.2$, $df=12$, $p < .05$).

judgments between pre and posttesting was 2.6 for the experimental group, and .42 for the control group. This represents a significantly greater improvement for the experimental group ($t=2.2$, $df=12$, $p < .05$). It is interesting to note that once again at least one child showed no change despite training and another got somewhat worse.

DISCUSSION

One of the principal aims of the present study was to investigate the moral judgments of preschoolers. The use of films made it possible to test younger children than is feasible when stories are used. The use of this technique helped reveal qualitative changes occurring in the developmental process at ages hitherto never profitably tested. Just as the use of more complicated material allowed investigations of the moral judgments of older children, adolescents, and adults (Kohlberg, 1958; Loughran, 1967), so the use of less complex material in the present study made it possible to study the moral outlook of preschoolers.

It was hypothesized on the basis of Piaget's (1932) theory that a developmental pattern of increased use of intentions would be discovered within the preschool range. This main hypothesis was clearly substantiated: For both lower and middle-class samples it was found that age was a significant determinant of moral maturity. These findings are consistent with the results of studies with older children which also substantiate Piaget's claim that sophistication of moral outlook develops with increasing age (Lerner, 1937; MacRae, 1954; Boehm, 1962; Johnson, 1962).

Kohlberg (1963, 1964) has modified Piaget's developmental scheme so that partly heteronomous stages occur at later ages. Studies investigating the moral judgments of adolescents and adults have found that traces of "immature" morality do indeed persist. For example, when the material is sufficiently complex, adults sometimes make their judgments on the basis of consequences (Walster, 1966). Kohlberg has also predicted that features of autonomous, non-authoritarian thinking will be found in early childhood. Piaget himself had talked of a middle stage of morality in which there is some slight interiorization of rules (1932, p. 193). The present study provides some evidence for the existence of this semi-autonomous "middle-stage" of morality in which young children are beginning to question the importance of punitive consequences as the sole criterion for making a moral judgment. In view of the existence of this intermediate stage it is a mistake to lump together all preschoolers as "non-intentional".

One of the characteristic features of the moral judgments made by preschoolers is the ambivalence in their attitude. They seem to be groping towards a more mature orientation while remaining at a low level. A good example of this ambivalence is the following response of a four-year-old

boy to the Baby Carriage film which depicts someone being punished after he has shown great care in looking after a baby.

> "I guess he was bad. But the mother was bad too. She shouldn't have hit him." (Scored 2)

These "two-level" responses were obtained fairly frequently and could easily and reliably be differentiated from complete reliance on consequences on the one hand (a score of 1), and a complete autonomous response on the other (a score of 3).

Kohlberg (1964) has suggested that the earliest sign of emerging autonomy is the rejection of authority. Once a child has reached this stage further advances will be due primarily to improved cognitive capacities. Since the above type of two-level response was quite typical, it might indicate that Kohlberg's suggestion is correct. The child shows that he can reject authority ("The mother was bad too"), but he must still develop the capacity to ignore consequences to make a more mature moral judgment of the situation.

On the other hand, the quality of the ambivalence was not always typified by a rejection of authority. For example, one four-year-old responded to the same film as follows:

> "Did he do anything wrong? Oh yes, he tickled the baby? No, maybe he was bad because he didn't share the lollipop?

> ...I don't think he was bad..." (Ex. "What did you think of the mother?"): "I don't know." (Scored 2)

Here the criticism of authority is, at most, indirect. The autonomous feature that seems prevalent is the willingness to partially ignore the consequences in making the judgment ("I don't think he was bad"). It could be argued that in this case what is preventing the child from achieving an autonomous morality is primarily the deferment to authority which, in turn, causes reliance on consequences. On the basis of the quality of response alone, it was very difficult to judge the degree to which a child's ambivalence was due to fear of authority, and the degree to which it was the result of a partially-developed cognitive capacity.

Moral Judgments and Cognition

Those children who showed evidence of more autonomous moral thinking were also more reflective on a pure cognitive task. This relationship between moral maturity and reflective style was found in both the six-year-old and the three- and four-year-old samples. Children who are highest in level of moral judgment are also most field-independent in their cognitive style. The finding that more reflective and more field-independent cognitive styles relate to maturity

of moral judgment is consistent with Kohlberg's (1964, 1968) view that moral development is primarily ego development. The present study thus supports the view that the ability to judge acts in terms of intentions rather than consequences entails a "stop-and-think" attitude.

The fact that both impulsivity and field-dependence are characteristic of children of low moral level supports the view that there is a developmental continuum which inextricably combines both cognitive and emotional maturity (Kohlberg, 1964). In support of this view, too, are the findings that both impulsivity and field-dependence are characteristic of younger children (Campbell, 1969). Young children have less ability to sustain attention, to concentrate on relevant cues and to delay gratification (Kohlberg, 1968; Mischel, 1961). These abilities are related to one another as well as to other behaviours, such as level of aggression (Livson & Mussen, 1957). It seems reasonable to conclude that the more impulsive child can be portrayed as emotionally immature, resembling in important respects somewhat younger children.

On the other hand, some very young children in the present study show evidence of relatively mature cognitive styles. They tend also to be the same children who are most

mature in their moral judgments. What remains unexplained is the underlying aetiology of this cognitive-emotional dimension. It seems likely that whatever parental practices or other experiences are relevant to the development of an internalized moral outlook will also be relevant to the development of these specific cognitive capacities. The present study failed to find any significant relationship between the child-rearing practices of parents and the maturity of their children. Future studies might try to ascertain whether parents of children who are more field-independent, reflective, and morally autonomous can themselves be characterized in this way.

There have been a number of investigations into the antecedents of field dependence-independence. Although the results are far from unequivocable (Kagan & Kagan, 1970), there is evidence that field-independence is influenced by the cognitive style of both parents (Witkin et al., 1962; Dye & Witkin, 1965; Corah, 1967). There do not seem to be any similar studies designed to get at the moral and emotional maturity of parents in order to see how this relates to the moral level of the child. In view of the demonstrated importance of modelling (e.g., Bandura & Walters, 1963), it is reasonable to expect a relationship between parents'

autonomy and that of their children.

It is important to note that the evidence of a consistent relationship between moral maturity and cognitive style does not indicate a general intelligence factor. If Kohlberg's (1964) view is correct, then the type of ego development which is related to the control of impulses will not necessarily involve the kinds of intellectual capacities which are tapped by usual intelligence tests. It has already been shown that the cognitive style tests do not relate significantly to verbal intelligence (Kagan & Kogan, 1970). The present study confirms that verbal intelligence does not relate to the type of maturity tapped by either the moral judgment tests or the cognitive style instruments. Verbal intelligence did not prove to be a significant determinant of moral judgment scores either in the study with preschoolers, in which films were used, or in the study with six-year-olds, using stories.

The relative unimportance of verbal intelligence is particularly interesting in the case of the older sample in which traditional Piaget-type stories were used. This helps counter the suggestion that level of moral orientation might only reflect the ability of children to handle verbal material (Aronfreed, 1968). High level, intentional children included some scoring extremely high on the I.Q. tests, but also

children of average, or, in some cases, below average intelligence.

Moral Judgments and Behaviour

Six-year-old children who are more intentional in their moral judgments are rated as more reflective, attentive, and confident by their teachers. It seems reasonable to interpret these findings as showing that the teacher sees these children as demonstrating the pattern of cognitive and emotional maturity discussed earlier.

This dimension of maturity is quite specific, however. The teachers do not, for example, rate the intentional group as brighter or easier to control. That the children are not an "easy to control" group is consistent with the general view that morally mature children will obey or resist temptation only when good reasons are offered and adherence to rules is seen as appropriate (Hoffman, 1970). The "intentional" children are also not rated as brighter as a group. Although they are judged to have a significantly better chance of future success, they are not seen as more intellectual or more "verbal". This is consistent with the finding that verbal intelligence does not relate to maturity of moral judgment.

In the nursery school, children who tend to be more autonomous and mature in their moral judgments, and more reflective and field-independent in their cognitive approach to tests are seen as less aggressive and less dependent in their classroom behaviour. Since the items related to aggression concern inappropriate impulsive responses to peers and teacher (see Appendix E), it seems reasonable to interpret the teachers' ratings as reflecting their perception of the child's emotional maturity. There was a tendency, furthermore, for the teachers in the present study to rate their older children as less aggressive, and less dependent. This also suggests that when a teacher judges a three-year-old child, for example, to be extremely unaggressive (as well as independent), she is implying that he demonstrates the ability to restrain impulse and cope with frustration at a level typically seen at a somewhat older age.

Many investigators, although by no means all, have found that nursery school teachers rate the same children as both more aggressive and more dependent (Feshbach, 1970). These findings are more likely to occur when the same teachers rate all the children, as in the present study. Sears et al. (1953) found the same tendency for children to be rated as both aggressive and dependent. They attribute

this relationship to the correlation of both variables with the activity level of the child. Several authors (e.g., French, 1964; Sanner, 1964) have suggested that the positive correlations between aggression and dependency are largely due to the attention-seeking component. Another possibility is that some children become easily frustrated by certain demands, and that this frustration may result either in increased aggression, or in more dependence, and often both. This interpretation is supported by the present findings that the children rated lowest on aggression and dependence demonstrate the general pattern of emotional and cognitive maturity: they are not only highest in their moral judgments, but also the most reflective and field-independent in their cognitive styles. In support of this interpretation, too, are the findings that field-independent, reflective boys are more optimistic about the outcome of potentially frustrating events (Campbell & Douglas, in press), that reflective children evaluate their own ability more favorably than impulsive children (Kagan et al., 1966), and that field-independent boys are more self-confident (Witkin et al., 1962).

Social Determinants of Moral Maturity

There were no clearcut results regarding the relation-

ship between the moral judgments of children, and the methods of discipline used by their parents. The hypothesis that parents emphasizing inductive (reasoning) techniques would have more mature children found no support. There was a tendency, in fact, for parents of "intentional" children in the six-year-old sample to admit more use of power-assertion (see Table 12). Although most of the studies on child-rearing did find a positive relationship between non-corporal methods of discipline and degree of internalization of moral values, a few studies found no relationship (MacRae, 1954), and several others found power-assertion to be effective. Hoffman (1970) suggests that power-assertion can be effective towards achieving the relevant maturity, provided that parents have established respect for themselves.

In informal discussions with parents of the more mature six-year-old children, we obtained the impression that they emphasize the rights of others in the family in decision-making. It would be worthwhile in future studies to attempt to relate indices of parental personality to children's orientation, rather than concentrating upon the traditional child-rearing practices. Personality inventories or behavioural tests could be used to supplement questionnaires. It might reasonably be hypothesized, for example,

that parents of more mature children would be less egocentric and impulsive, and more cooperative and altruistic than parents of less mature children.

The negative findings concerning parental practices may also explain the lack of class differences in the present study. If one assumed corporal methods to be less effective in promoting maturity, it would be reasonable to expect low income groups who stress these methods to have less mature children. The present study, however, found no evidence for the proposition that moral judgments mature less quickly in lower-class samples within the preschool range, nor were there significant differences in child-rearing practices reported. Other investigators working within younger age ranges also failed to find class differences (e.g., Johnson, 1962).

One major difference between the middle-class and lower-class samples was found on the sharing test. For middle-class children the older ones would share the candies exactly in half. There was also a tendency for younger children with more autonomous moral judgments to share. Most of the children in this sample, however, either quickly grabbed a few candies (60% of the children) or took as many as they could (17%). Neither of these behaviours can be

interpreted as true sharing behaviour which the more mature children in the sample demonstrated.[1]

For the lower-class sample, on the other hand, the great majority of children throughout the entire age range shared evenly. The few children who didn't share (four of thirty-seven) grabbed one or two candies and quickly left.

The most reasonable explanation is that the specific behaviour of sharing is emphasized in homes where there is greater need for distribution. Since this behaviour is not emphasized in middle-class homes, only those children who have achieved a greater maturity in regard to impulse gratification have developed the disposition to share. Although just as many middle-class parents reported that they had taught sharing, and predicted that their child would

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1. Here we opt for the Aristotelian as opposed to the Thomistic position on virtue. Aristotle stressed that "virtue lies in a mean" (Nicomochean Ethics, Book II, Chapters Five to Ten, and Book III, Chapter Six to the end of Book V). Aquinas, on the other hand (Summa Theologica, Article 64) insisted that virtue lies in an extreme: His two favorite examples are giving away all one's money, and virginity... These virtues are extreme but are nonetheless perfect because done "for the right reason - according to God's will". For Aristotle, extremes are never virtues whether lying in excesses or deficiencies. So for him, virginity is a vice (a deficiency?), rushing headlong into battle is as much a vice as cowardice, martyrdom is to be pitied not applauded, and giving away all one's goods is not as good a test of altruism as sharing evenly.

share, the message may never have been grasped by the children.

Training and the Stages of Morality

The present study confirms the possibility of training children to make more mature moral judgments in response to appropriate situations. The social learning point of view which emphasizes the importance of training has been supported in two ways. In the first place it is clear that the results of training cannot be seen as due to response bias or the mere learning of a rote response. The six-year-old children were able to generalize to a different experimenter, to somewhat different stories and over a period of several weeks. That is, they retained the ability to make judgments on the basis of intentions. Further evidence for the efficacy of training comes from the study with preschoolers. Once again they were able to retain the improvement over time, with a new experimenter and even with different materials being used in posttesting than were used during training. (Puppets were used during training, the films in posttesting.)

The present results, then, are consistent with the findings of others (Bandura & McDonald, 1963; Cowan, 1968;

Crowley, 1968) that training does have an important effect. It does not follow from this, however, that Bandura (1969) is correct in stating that Piaget's entire developmental scheme is called into question. To the contrary, the results of training can be reconciled with the consistent developmental findings. The explanation that Turiel has offered (1966) for the success of training seems appropriate for the present findings as well. He suggests that the effect of training is to advance the cognitive level of the child making it more likely for him to progress to the next sequential structure. This is done by presenting alternative points of view and stimulating reflection. Turiel's analysis is within the framework of the developmental theories of Piaget (1932) and Kohlberg (1963, 1964). Put somewhat differently, training can work if, and only if, the child is ready to make the next step. Furthermore, he will proceed in a direction suggested by developmental trends.

Turiel (1966) demonstrated that a child is more likely to be trained to the next higher stage, rather than to "leap-frog" to a stage two higher. Similarly, Cowan et al. (1969) demonstrated that training can more easily shift from low level moral judgments than vice versa. These studies as well as the present findings support the view that training

and development interact to produce the final orientation.

The typical shifts after training in the present study were also as the developmental trends had predicted. For example, the successful training of preschoolers was to significantly increase the level of intentionality--but not to the level at which it appears in older children. From a complete reliance on consequences, many children showed evidence of increased use of intentions, more ambivalence in their judgments, and occasionally some confusion. This is in line with the finding discussed earlier that within normal development pure obedience to authority and punishment is followed by a middle stage of ambivalence.

With six-year-olds, training proved to be relatively effective even after a long period of time (from six to eight weeks) and with new stories. However, it was clear that many of the trained children could not adequately generalize the concept of intentionality to very complicated moral situations which were designed to control for response sets. Compared with a non-trained high level group many do not do as well in coping with some of the pairs of stories. This suggests that training cannot completely duplicate the normal developmental process. It is just possible, furthermore, that some of the children had

not developed the necessary conceptual apparatus: they were not "ready to be trained". This is confirmed by the finding that a few of the children in all the training studies do not improve at all; this phenomenon also occurs in other training experiments (e.g., Crowley, 1968).

The evidence that experimental training techniques are successful in altering moral orientation suggests the importance of modelling in parent-child interactions. Bandura (1969) insists that modelling can adequately account for the learning of moral judgments, although he admits that "the developmental status" of the child (p. 277) affects the social learning. Developmental theorists (e.g., Cowan, 1969; Turiel, 1966) are involved in a continuing controversy concerning Bandura's conclusions. In answer to Cowan's (1969) objection that modelling does not take into account how and why parents respond to young children in terms of consequences, Bandura responds as follows:

> Parents generally behave in a discriminative manner so that under some circumstances they evaluate the reprehensibility of actions primarily in terms of consequences, while under other conditions they may also give priority to the offender's intentions.
>
> It would also come as no surprise to find that parents are more inclined to take intentions into account in judging their children's behaviour as they

advance in age. (Bandura, 1969, p. 278)

This is legitimate as far as it goes but Cowan could still ask why it should be that parents discriminate in just the way they do, if it is not that they observe and react to certain developmental changes.

Bandura has stressed the importance of the existence of many "mixed" cases in the moral judgments of children. The present data confirm that there are very few so-called "pure" cases even within the preschool range. What Bandura's account has missed, however, is the acknowledgement that adults (like children) exhibit varying admixtures of high level and low level moral judgments in their conceptual behaviour. Furthermore, it is not solely in response to children (of whatever age) that parents sometimes emphasize consequences rather than intentions. In all interpersonal relations there is evidence of what Piaget called "childhood moralities persisting in adulthood" (1932, p. 193). Experiments using complex data to elicit moral judgments from adults confirm that many people persist in ignoring intentions and motives of others (e.g., Walster, 1966).

Questions about the moral orientations of parents should not, then, be posed solely in terms of their reaction to children. It can more profitably be seen as the general

question of what allows some adults to achieve the kind of maturity needed for a genuine autonomous morality. Since children are barraged by this mixture of high level and low level modelling, their ability to internalize an intentional morality must depend in part upon their developmental status.

SUMMARY

Six-year-old children were administered stories concerned with moral situations and asked to make judgments of relative goodness and badness. Level of moral maturity was scored on the basis of the child's awareness of the intentions of the actor as opposed to his reliance on consequences. Children of this age were easily dichotomized into "intentional" (high level) and "non-intentional" (low level) children.

A comparison of the two groups shows that children of higher moral level were more reflective and more field-independent in their cognitive style. They were also rated as more attentive, confident, and likely to succeed by their teachers. This was interpreted as showing that these children are more mature in their general behaviour. They were not rated by their teachers as more intelligent, nor did they differ as a group on a test of verbal intelligence.

These results were discussed in the light of the cognitive-developmental approach which stresses the importance of cognitive factors such as reflection and attention for achieving emotional maturity. The present study supports the view that cognitive and moral factors are inextricably combined.

Film analogues of the stories were shown to a group of preschoolers. The use of films allowed children of very young ages to reveal their conceptualizations of goodness and badness. An analysis of the quality of responses demonstrated the existence of an intermediate, questioning stage of morality with a mixture of low level and autonomous features. This is consistent with Piaget's (1932) general approach, and particularly with Kohlberg's (1964) stage-theory. As predicted, a developmental pattern of increased awareness of intentionality was found within the preschool range. For children from both lower-class and middle-class homes, it was found that age was a significant determinant of moral maturity. Children receiving the highest moral maturity scores were also the most reflective and field-independent, and were rated by the nursery school teachers as least aggressive and least dependent.

Another purpose of the present study was to attempt to train children towards higher moral orientations. Non-

intentional children of the first grade sample were trained to focus on intentions and ignore consequences. Training had a significant effect and the gains proved to last over time, to a new experimenter, and to different stories specifically designed to control for the possibility of a response set.. Although there is adequate evidence that training is thus effective, many of the trained subjects could not cope with the stories which we judged to be most difficult whereas non-trained high level children were able to cope. This supports the view that training is effective only if the child is "ready to be trained".

Preschool children were similarly exposed to training sessions. With three- and four-year-olds, as well as five-year-olds, training successfully changed the moral orientation of the child. The changes induced by training proceeded in a direction suggested by developmental trends. Many young children, for example, shifted from a complete reliance on consequences to an intermediate stage characterized by increased use of intentionality and much questioning and ambivalence. These results were discussed in the light of the controversy between learning theorists and defenders of the developmental view. The suggestion that training and development interact to produce moral orientation received support from the present studies.

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APPENDIX A

Pupil Personality Evaluation Form

Name of child: _____

Grade: _____

Teacher: _____

School: _____

Date: _____

1. ATTENTION

1	2	3	4	5
Very easily distracted		Pays attention most of the time		Gets absorbed in lesson or task

2. ACTIVITY AND RESPONSE LEVEL

1	2	3	4	5
Slow-moving needs prod-ding		Response level average		Very active and quick to respond

3. INITIATIVE

1	2	3	4	5
Usually waits to be told what to do		Sometimes finds things to do		Always ini-tiates activity if left alone

4. NEED FOR PRAISE

1	2	3	4	5
Usually anxious about suc-cess		Needs some praise and en-couragement from time to time		Assured, needs minimum en-couragement

5. PERSEVERANCE AND EFFORT

1	2	3	4	5
Gives up easily		Only persists if on the right track		persistent, tries hard

6. CONFIDENCE

1	2	3	4	5
Often feels inferior, distrusts his own ability		Is of average self-confidence		Very confident, outgoing

7. RAPPORT WITH PEERS

1	2	3	4	5
Disliked, or unable to get along with peers		Gets along with peers most of the time		Well-liked and gets along very well with peers

8. INTELLECTUAL STIMULATION IN HOME

1	2	3	4	5
Home places minimal emphasis on widening the child's background of experience, e.g., it is not likely that this child is read to, taken on excursions of educational interest, etc.		Home provides an average degree of educational stimulation		Home places great emphasis on widening the child's background of experience, e.g., this child is read to, taken on excursions of educational interest, etc.

9. PROBABLE FUTURE SUCCESS

1	2	3	4	5
Likely to be below average		Likely to be average		Likely to be above average

10. ENTHUSIASM AND INTEREST IN LEARNING AND DOING

1	2	3	4	5
Very little enthusiasm shown		Is often enthusiastic		Is usually very enthusiastic

11. VERBAL SKILL

1	2	3	4	5
Knows very few words for his age level		Has an adequate vocabulary		Superior collection of words and phrases

12. DISCIPLINE

1	2	3	4	5
Is very difficult to control and needs to be disciplined often		Is naughty only from time to time		Always does what he is told, rarely gets out of hand

13. PARENTAL ATTITUDE TOWARD SCHOOL PROGRESS

1	2	3	4	5
Generally appear indifferent, no contact with school		Seem somewhat interested		Appear generally very interested

14. PARTICIPATION IN CLASS

1	2	3	4	5
Does not generally volunteer answers or ask questions		Sometimes volunteers answers or asks questions		Frequently volunteers

15. PHYSICAL APPEARANCE

1	2	3	4	5
This child is less physically attractive than average		Is of average attractiveness		Is more attractive than average

16. REFLECTIVITY-IMPULSIVITY

1	2	3	4	5
Generally impulsive, does not think before acting		Response level average		Generally reflective, thinks things through carefully before acting

17. GENERAL APPEAL

1	2	3	4	5
This child is less appealing than average		Has average appeal		Is more appealing than average

18. ADJUSTMENT

1	2	3	4	5
Seems generally unhappy and poorly adjusted to his environment		Is content and has few adjustment problems		Is very happy and well adjusted

APPENDIX B

Parents' Questionnaire

The following questions appeared on all versions.

1. Who is mainly concerned with the discipline of the children? Check one:

   Father exclusively ___ Father primarily ___

   Mother exclusively ___ Mother primarily ___

2. Here are some methods that parents use to discipline their children, when, for example they have done something wrong which they have been specifically warned many times not to do. Which of the following methods do you use most often? And which do you use second most often? And third most often? Please mark 1, 2, and 3:

   ☐ Spank him for doing wrong.
   ☐ Ask child why he did the bad thing.
   ☐ Raise voice at child for doing wrong.
   ☐ Show the child that you are disappointed in him.
   ☐ Warn child of spanking.
   ☐ Other (specify).....

3. Suppose your child is definitely warned not to touch any of the cookies from a plate. He is very tempted to take one. Suppose he is now left all by himself with the plateful of cookies. What do you guess that he or she would do? Please check one:

   ☐ Would almost probably take one
   ☐ Would almost surely not take any

The following question was used only for the first-grade sample:

4. Children differ in their ability to understand "intentionality", for example the difference between something done accidentally vs. some intended act.

   Have you attempted to teach these sorts of distinctions to your children? Please check one:

   Yes, have made a special effort _____

   This is occasionally stressed _____

   No special effort has been made _____

The following question was included for the preschool sample:

5. How important in general do you feel it is for a child of preschool age to obey his parents when asked to do something? Check one:

   Very important ____ Rather important ____

   Rather unimportant ____

APPENDIX C

Stories Used to Elicit Moral Judgments

In Six-Year-Olds

The following stories were included in first testing. (A=Accidental; I=Intentional.)

1 I. One day when Henry's mother was out, Henry tried to get some cookies out of the cookie jar. He climbed up on a chair, but the cookie jar was still too high, and he couldn't reach it. But while he was trying to get the cookie jar, he knocked over a cup. The cup fell down and broke.

1 A. John is in his room. John's mother says, "Come down to dinner, John". John goes down and opens the door to the dining room. But behind the door was a tray with 15 cups on it. John didn't know the cups were behind the door. He opens the door, the door hits the tray. Bang go the 15 cups, and they all get broken.

2 A. Claudia and her sister are looking at pictures of the family. As Claudia starts to turn the page of the family picture book, her hand bumps into a glass of cherry soda. It spills on the album, and marks up about 20 pictures.

2 I. Norma is looking at the snapshots the family took while on their vacation last summer. As she looks thru the vacation snapshots, she notices that her brother got into most of the pictures; he's in almost all of them. So when she comes to another picture with her brother in it, she gets a crayon and makes a mark on the picture.

3 A. One day Floyd's father is painting the fence. Floyd asks his father, "Can I help you?" His father says, "Sure." So Floyd gets a brush and starts painting the fence. After he paints for a while, he steps back to see how it looks. But he forgot that the paint can was behind him, and his foot knocks over the paint can, and the paint spills all over the ground.

3 I. Paul comes out to watch his father paint the picnic table. He asks his father, "Can I help you?" His father says, "Paul, don't bother me now." Paul doesn't like that. So when his father goes to the garage, Paul takes the paint stick and dribbles a little paint on the ground.

4 I. One morning, Alice came in from the yard and found that her mother wasn't home yet. Alice thinks, "I'll get some ice cream before my mother comes home." She gets a little dish from the cupboard. As she is going to the refrigerator, the little dish slips out of her hand and breaks.

4 A. Kathie's mother was late coming home from shopping. Kathie thinkgs, "I'll help my mother by setting the table for her." As she is carrying the dishes to set the table, two large dishes slip out of her hand, fall and break.

5 I. Harvey and his class are playing kickball. All of a sudden, the school bell rings. The teacher says, "Recess is over; everybody back to the class room." Harvey didn't have a turn yet at kicking the ball, so when the teacher is lining up the children, Harvey kicks the ball to the far corner of the playground, and someone has to go and get it.

5 A. Two first grade classes are playing a game to see which class can kick the kickball the farthest. Everybody has had a turn except Ross. So far the classes are even, but if Ross can kick the ball real far, his class will win. Ross takes careful aim, and kicks the ball with all his might. The ball goes sailing across the playground, smashes into a window and breaks it.

6 A. The teacher asks, "Who would like to help clean up the paints?" Judy says, "I will, Sister." Judy wants to help so much that she tries to carry six paint jars to the sink. But they slip out of her hand, and spill all over the floor.

6 I. Ann doesn't care very much for finger painting. When the class was finger painting that afternoon, Ann didn't do much finger painting. She just played with the paint, and a little paint dribbled on her desk.

7 I. One day at school, Sam's friend made fun of him. Later that day, Sam saw his friend coming home from school. Sam hid behind a fence, and as his friend passed by, Sam squirted him on the leg with a water pistol.

7 A. One afternoon, Jack was watering the lawn for his father. One of his friends was passing by, and started to make fun of Jack. So Jack turned his head to look at his friend. When Jack turned his head, the hose squirted water all over the man next door, who happened to be walking by just then.

8 A. Ed doesn't know the names of the streets very well, and he's not sure where Marlboro Pike is. One day, a man comes up to Ed and asks him, "Where's Marlboro Pike?" So Ed says, "Um...I think it's that way." But it wasn't that way. The man really got lost, and couldn't find the place he was looking for.

8 I. Joe knows the names of the streets very well. One day a man came to Joe and asked him. "Where's Marlboro Pike?" But Joe wanted to play a trick on him, and he said, "It's that way," and he pointed the wrong way. But the man didn't really get lost, because he found his way again.

The following new stories were used in first posttesting. (A=Accidental; I=Intentional)

1 A. One day it starts to rain. Vivian's father says, "Go and shut the car windows so the seats won't get wet." Vivian goes out and shuts the windows, except the back one. She doesn't see that the back window is open. She goes back inside, and the rain rains all over the seat covers, through the window she didn't see was open. Her father has to get new seat covers.

1 I. Andrea goes riding with her father. She wants him to get her some ice cream. But her father says, "Not today. We've got to get home, because it's raining." Andrea feels sad that she can't have any ice cream. So when she gets out of the car, she doesn't close the window. But it stops raining pretty soon, so only a little rain gets on the seat, and it dries up right away.

2 A. Randy went to the school library to get a book for his teacher. When he was coming back, he opened the classroom door. Just then a girl was passing by with jars of finger paint. Randy didn't know that she was behind the door. He opened the door, the door hit her arm, the jars fell out of her hands, and the finger paint spilled all over the floor.

2 I. Clark was tickling the boy in front of him while the teacher wasn't looking. The boy turned around, to see who was tickling him. Clark jerked his hand back so the boy wouldn't see him. When he jerked his hand back, it hit a small jar of water. A little bit of water spilled on the desk.

3 I. Rachel's class is doing spelling. Rachel is tired of spelling. When the class is spelling, she just plays with the pencil sharpener. When she does, a few little scraps fall on the floor.

3 A. Sonia's teacher asks, "Who will help sharpen the pencils?" Sonia says, "I will, Sister." She wants to help so much that she turns the handle too hard. The pencil sharpener falls over, and all the scraps fall on the floor. Sister has to get a broom and cleans all the scraps up.

4 I. It's wintertime. Gary is throwing snowballs. He sees a car coming by, so he throws a snowball at the car. The snowball hits the windshield. The driver has to stop, get out, and clean the windshield.

4 A. It's wintertime. Roger is in his yard, playing with another boy. He throws a snowball at his friend. His hand slips. The snowball goes over the fence, and hits a car that's coming down the street, right on the windshielf. The driver can't see where he's going, and he funs right into a telephone pole and smashes up the front of the car.

At second (follow-up) posttesting, the following new stories were used:

(A) Original Piaget-type:

1 A. Barbara decides she'll clean her room so that her mother won't have so much work to do. Barbara puts her big doll in the toy box, and then she puts the wooden blocks in too. Barbara didn't think that the blocks would hurt the doll, but when she put the blocks in the toy box, they fell on the pretty doll and broke it all to pieces.

1 I. Amy wants to watch television, but her mother says, "Turn off the TV, Amy, because I want to talk with my friend here." Amy doesn't like that, because she can't watch her favorite program. So when her mother leaves the room, Amy picks up a doll and drops it on the floor. The doll's finger breaks off.

2 I. Ted is walking through the park, eating a banana. When he finishes, he throws the banana peel behind him, because he figures it's too far to walk over to the trash can. A man comes walking behind Ted, and start to slip on the banana peel. But he doesn't fall; he gets his balance again and stays standing up.

2 A. Reggie is running through the park to play marbles with his friend. As he's running, a marble falls out of his bag. He doesn't see it because it falls behind him. Along comes a man behind Reggie, and slips on the marble. He falls down, and gets a cut on his head.

3 I. John is at supper. He's eaten all his food except the potatoes. His mother says, "If you don't eat your potatoes, you can't have any dessert." So when his father and mother are busy talking and they're not looking, John pushes his plate, and it knocks over the salt shaker, and a little salt spills.

3 A. Peter and his parents are at supper. His mother needs some sugar, so Peter says, "I'll pass it to you, Mother." As Peter reaches quickly for the sugar bowl, his hand hits the bottle of milk, and the milk spills all over the table.

4 I. Kate is getting tired of sitting and waiting while her mother is shopping. So Kate runs up and down the aisles in the grocery store. The clerk tells her, "Slow down! Be more careful!" But Kate doesn't pay much attention to him. She starts to run again when he isn't looking. As she turns the corner, her hand hits a box of Kleenex, and it falls to the floor.

4 A. Pam goes grocery shopping with her mother. Her mother says, "Oh, I forgot the ketchup, and it's way at the back of the store!" Pam says, "I'll get it for you, Mother." As she's taking the bottle off the shelf, she doesn't lift the bottle high enough, and two bottles of ketchup fall of the shelf and break. The ketchup spills all over the floor.

(B) Newly-designed stories, matching bad intentions-large damage against good intentions...

5 A. Jane comes in from playing outside. She feels real tired, so her mother tells her to take a rest. She walks over to the sofa and plops down. Jane doesn't know that her mother left her hat on the sofa. When Jane plops down, she squashes her mother's hat all out of shape and it can't be fixed.

5 I. Doris is all alone at home. She knows that her parents won't be home until suppertime. She wants to see the things on the top of her mother's dresser. She takes her mother's bottle of perfume that's on the dresser and decides to put some on. But the bottle slips out of her hand, and the perfume spills all over the floor.

6 A. One day, Linda goes to school. Her mother says, "Bring your raincoat." But Linda is in such a hurry that she forgets to bring her raincoat. That afternoon, it rains very hard when she's coming home. Her dress gets all wet, and she gets a cold, and has to stay out of school three days.

6 I. One day, May goes to school. Her mother says, "Wear your boots." But May doesn't like to wear her boots, so she leaves them at home. That afternoon there is a big snow storm. When May comes home from school, her feet are so cold and wet that she has to go right to

bed. That night, May feels very sick and the doctor has to come look at May. He says to May: "You are very sick, May, and you'll have to stay in bed for a long time."

(C) Newly-designed stories, matching bad intentions against bad intentions...

7 I. David came home from school. His mother was out, so David figured this would be a good time to get some ice cream. He opens the refrigerator, and sees that there is a lot of ice cream. So he helps himself to a dish of ice cream.

7 I. One day Peter's mother made sandwiches for the bridge party that night. Then Peter came home from school for lunch. He looks in the refrigerator and sees the sandwiches. He knows the sandwiches are for the bridge party but he eats some for lunch any way, even though he knows there won't be enough left for the bridge party.

8 I. Joe and his father go to the shopping center. As they're getting out of the car, his father says, "Joe, lock the car door." But Joe doesn't think that it is important to lock the door, so he just closes the door without locking it. While they're in the store, a man comes along and takes a camera out of the car.

8 I. Bill is playing baseball with his old baseball bat. Bill's father says, "Bill, come to supper, and bring your baseball bat inside with you." But Bill wants to play with his bat after supper, so he leaves the bat outside on the front lawn. While he's eating supper, a man comes along and takes the bat.

APPENDIX D

Raw Data for Six-Year-Old Training Study

Name	Sex	Age	I.Q.	Reflection Errors	Reflection Time	Field Independence (CEFT)
Model Group:						
Peter	M	6-6	97	6	15.5	12
Darius	M	6-8	128	13	10.7	14
Norman	M	6-9	116	18	6.3	8
Joseph	M	6-6	100	11	6.3	12
Lisa	F	7-3	127	13	11.1	13
Anne	F	6-6	96	12	8.9	10
Donna	F	6-5	110	7	10.4	11
Sally	F	6-7	104	9	10.1	13
Candy Group:						
Robby	M	6-9	136	3	20.2	19
David	M	6-7	108	10	19.2	4
Glen	M	6-7	106	13	10.3	6
Ghislaine	F	6-5	87	16	7.1	13
Pamela	F	6-11	115	6	10.3	14
Rene	F	6-6	99	11	14.2	14
Olla	F	6-7	93	21	3.7	3
Control Group:						
Keith	M	6-11	102	7	6.5	13
Neil	M	6-9	100	14	9.7	16
Nicholas	M	6-10	118	12	10.7	6
Kirsten	F	6-5	119	10	8.2	14
Kim	F	6-6	122	12	9.4	6
Paula	F	6-9	85	16	5.8	6

APPENDIX E

Nursery School Rating Form

Name of Child _____ Teacher _____

School _____ Date _____

Aggression Items (9)

Threatens children	LOW	___	___	___	___	___	___	___	HIGH
Bosses children	LOW	___	___	___	___	___	___	___	HIGH
Derogates children	LOW	___	___	___	___	___	___	___	HIGH
Directs children	LOW	___	___	___	___	___	___	___	HIGH
Attacks children physically	LOW	___	___	___	___	___	___	___	HIGH
Threatens teacher	LOW	___	___	___	___	___	___	___	HIGH
Insists on own ideas	LOW	___	___	___	___	___	___	___	HIGH
Destroys property of other children	LOW	___	___	___	___	___	___	___	HIGH
Derogates teacher	LOW	___	___	___	___	___	___	___	HIGH

Dependence (7)

Seeks to be near teacher	LOW	___	___	___	___	___	___	___	HIGH
Seeks physical contact with teacher	LOW	___	___	___	___	___	___	___	HIGH
Seeks recognition from teacher	LOW	___	___	___	___	___	___	___	HIGH
Seeks attention from teacher	LOW	___	___	___	___	___	___	___	HIGH

Asks teacher to do what teacher asks child to do	LOW ___ ___ ___ ___ ___ ___ ___	HIGH
Seeks help from teacher	LOW ___ ___ ___ ___ ___ ___ ___	HIGH

Autonomy (3)

Completes activities	LOW ___ ___ ___ ___ ___ ___ ___	HIGH
Gets intrinsic satisfaction from work	LOW ___ ___ ___ ___ ___ ___ ___	HIGH
Overcomes obstacles by himself	LOW ___ ___ ___ ___ ___ ___ ___	HIGH

APPENDIX F

Films Designed to Elicit Moral Judgments In Preschoolers

The films described below were used for both samples in the order indicated with the exception of the Blocks film (No. 7) which only became available for use with the lower-class sample. Thus, nine films were shown to the middle-class children, and ten to the lower-class ones. Two of the films marked "control" (No.1, DRUM, and No. 4, BOTTLES OF POP) were not scored. This leaves eight films with a possible moral judgment score of twenty-four for the lower-class children; seven films with a possible moral judgment score of twenty-one for the middle-class children.

We divided the films into three sub-groupings, according to our a priori judgments of similarity of theme. For example, three films (Nos. 2, 3, and 10) concern material damage with differing intentions; three others involve punishment-consequences for well-intended acts (Nos. 5, 7, and 9); two others concern material damage with responsibility uncertain (Nos. 6 and 8). Intercorrelations between scores on these three groups of films were positive (.8, .6, and .3). This justified totalling a child's score on all the films to obtain the moral maturity index. A subsequent analysis of the data from the main study showed that scores on each of these smaller groups of films correlated significantly (and in the same direction) with the same variables as did the total moral maturity score.

Film 1: DRUM ("Control")

Description: A boy is playing with his drum; one sees a "mother" sleeping in the background. He looks into the room, looks at the drum, and then film ends.

Questioning: What happened? Then, what do you think the boy really did next?

Scoring: NO SCORE, responses were recorded.

Film 2: WIPING DISHES

Description: A mother is seen washing dishes; her son is helping her. She motions for him to put some glasses away and then leaves. He picks up about four of these, and then stumbles and drops them. The glasses smash into bits.

Questioning: What happened? What do you think of the boy? Then, if necessary: What kind of a boy do you think he was? Then, if necessary: Why?

Scoring: Score One: Complete reliance on consequences. e.g., (A) "The boy was bad." (B) He dropped all those dishes. He'll get punished, so he's naughty.

Score Two: Some consideration of intentions, although boy is still bad. e.g., (a) He was helping the mother, that was nice, but he shouldn't have broken them. (b) He was a little bad and a little good. (c) He was helping the mother, but then he was clumsy. Maybe he shouldn't have taken so many. I don't know if he was good or bad..I guess he was bad. (d) He was a little bit bad, but he was worse when he took the cookies (see below, Film 3).

Score Three: Consideration of intentions. e.g., (a) He was a good boy, he was helping his mother. (b) It was an accident, not his fault. (c) He shouldn't have taken so many, but he wasn't bad, 'cause he didn't mean it.

Film 3: COOKIE JAR

Description: A mother is seen putting away the cookies. She warns boy not to take them, and then leaves. He looks around, lifts himself up, opens cupboard and takes cookie jar. As he grabs it, a small glass falls down and shatters.

Questioning: What happened? What did you think of the boy? Why? When child said he was bad and gave his reason, he was asked: When do you think he was worse, when was he "badder", this time or before when he was helping his mother wipe the dishes?

Scoring: Score One: Complete reliance on consequences. e.g., (a) He was bad cause he broke a glass. (b) He's bad... that's why his mummy will punish him.

Score Two: Some consideration of intentions. e.g., (a) He was bad, cause he took the cookies and his mummy told him not to. (b) He was bad cause he took the cookies and broke the glass. He should listen to his mummy.

Score Three: Genuine intentionality. e.g., (a) He was bad for taking the cookies, but dropping the glass wasn't his fault.

Film 4: BOTTLES OF POP ("Control")

Description: A boy is drinking while sitting on a bench. In the background a girl also sips from a bottle of pop. She drops the bottle which falls to the ground and spills. The foreground figure continues drinking his drink.

Questioning: What happened?

Scoring: NO SCORE. Responses recorded.

Film 5: BABY CARRIAGE

Description: A mother leaves her baby to be minded while she leaves. She exits into a building. The boy minds the baby, sucking on a lollipop, and glancing towards the carriage. The mother returns, and beats the boy.

Questioning: What happened? (If necessary) What did you think of the boy? Or, what kind of a boy did you think he was just now? Then, what about the mother? (if necessary).

Scoring: Score One: Complete reliance on consequences. e.g., (a) He was bad 'cause she hit him (nothing more). (b) He shouldn't have teased the baby. The mummy had to hit him. (c) He was bad, she was good. (d) He was bad 'cause he should give the candy to the baby.

Score Two: Partial intentionality. e.g., (a) He was bad, but that mother was bad, too. She shouldn't have hit him. (b) He minded the baby properly, he was good, (nothing more). (c) He didn't do anything wrong, why did she hit him? I guess he was bad, but I don't know why she hit him. (On prompting), she was bad, too.

Score Three: Complete intentionality. e.g., (a) I don't understand why she hit him. He was good. (b) What did he do that was wrong? She shouldn't have hit him,

why did she do it? (c) He was good, she was bad (without any explanation).

Film 6: PAINTING CARICATURE

Description: A boy is painting a picture on a wall with red paint. It turns out to be a figure of a man (a self-portrait). Another person comes along, and they both admire the picture, standing side by side in front of it, with their back to the camera. The screen then turns red for an instant, and the picture is completely ruined.

Questioning: What happened? If necessary: How do you think it happened? After some attribution of responsibility or blame is made, ask "Why"?

Scoring: Score One: Complete reliance on consequences. e.g., (a) It got ruined. It was his fault (who?) the other man. (b) Why did that bad man spoil the painting?

Score Two: Partial disregard for consequences, some ambivalence. e.g., (a) I don't know which one did it. Was it the friend or the one who painted it? I guess ...(anything). (b) Maybe he decided he didn't like it, and then it got messed up. (c) They both did. (d) It was both their faults.

Score Three: Responsibility and intentionality. e.g., (a) It was no one's fault. (b) How did it get messed up? (After questioning): I don't see how it happened. (c) Maybe they both did, maybe none did. (d) Why would they mess it up? I don't understand. (No one is blamed). (e) You did it (with the camera).. (f) It was a trick...it was not their fault, it just happened.

Film 7: BLOCKS

Description: A boy is playing in his room with some blocks. He builds a small tower, etc. A mother comes into the room and shakes him roughly, making him leave the room.

Questioning: What happened? What did you think of the boy (if necessary)? Also if necessary: And what about the mother, what did you think of her?

Scoring: Score One: Complete reliance on consequences. e.g., (a) He was a bad boy, she hit him (nothing more). (b) He shouldn't have built such a high tower, she had to hit him. (c) He was bad, she was good. (d) He was bad 'cause he shouldn't play there.

Score Two: Partial intentionality. e.g., (a) He was bad, but that mother was bad, too. She shouldn't have hit him. (b) He played nicely, he was good (nothing more). (c) He didn't do anything wrong, why did she hit him? I guess he was bad, but I don't know why she hit him. (On prompting), she was bad, too.

Score Three: Complete intentionality. e.g., (a) I don't understand why she hit him. He was good, mother was mean. (b) What did he do that was wrong? She shouldn't have hit him. Why did she do it? (c) He was good, she was bad (any explanation).

Film 8: HELICOPTER

Description: A boy is seen putting together a simple toy helicopter. He then gets up and lets it fly. It goes for a distance, he runs after it. However, it lands on a street, and a car runs over it. He then picks it up and it's quite broken.

Questioning: What happened? Then (if necessary), How did it happen? After a judgment of responsibility, he is asked (if necessary) why?

Scoring: Score One: Reliance on consequences. e.g., (a) It got broken, that man did it, it's his fault. (On questioning), the man in the car. (b) He's bad, cause he broke the toy.

Score Two: Partial intentionality. e.g., (a) It was both their faults, they broke it. (b) The man was bad, the driver's fault. He shouldn't have played so near the street though. (c) He was a little bit bad, cause it got broken, and the car did it.

Score Three: Complete intentionality. e.g., (a) It was no one's fault. It was an accident. (b) Well he shouldn't have played near the street. The car driver couldn't have seen it in time. (c) No one was bad, it just happened. Now he'll fix it, and play somewhere else.

Film 9: FLOWERS FOR MOTHER

Description: A boy picks some flowers in a garden, then brings them to a "mummy". She looks at the flowers, at him, and then whallops him.

Questioning: What happened? What did you think of the boy (if necessary)? Why? (If necessary), what did you think of the mother?

Scoring: Score One: Complete reliance on consequences. e.g., (a) He was a bad boy, she hit him (nothing more). (b) He shouldn't have picked the flowers, she had to hit him. (c) He was bad, she was good. (d) He was bad 'cause you're not allowed to pick flowers.

Score Two: Partial intentionality. e.g., (a) He was bad but that mother was bad too. She shouldn't have hit him. (b) He picked the flowers for her, he was good (nothing more). (c) He didn't do anything wrong. Why did she hit him? I guess he was bad. (On prompting): She was bad too.

Score Three: Complete intentionality. e.g., (a) I don't think she should have hit him. He was good. She was mean. (b) He meant well, even though she got mad. She was bad, he was good. (c) He was good, she was bad (any explanation).

Film 10: PAINTING WITH FRIEND

Description: A boy is sitting at a table painting a picture. A friend sits down to join him, and watches, admiring. The painter motions to his friend to pass the yellow paint which lies at the other side of the table. While doing this, the friend's elbow touches a can of orange paint which spills and ruins the picture.

Questioning: What happened? (If necessary), How did it happen? After responsibility is attributed, (if necessary) the child is asked, why?

Scoring: Score One: Reliance on consequences. e.g., (a) The friend was bad, he spilt the paint. (b) The painting is messed up, he did it. He's mean.

Score Two: Partial intentionality. e.g., (a) It got messed up, it was both their faults. (b) He was

a little bit nice, but he was bad for spilling it. (c) They were both bad. (d) It was his fault (indicating painter). He put the paint there.

Score Three: Complete intentionality. e.g., (a) It was no one's fault, it was an accident. (b) He was good, he was trying to help, not his fault. (c) He'll just have to make another one, they'll both have to be more careful.

APPENDIX G

Results on Candy Sharing Test for Two Preschool Groups

Variable	No. of Children: Middle-Class (N=35)	No. of Children: Lower-Class (N=37)	Score
Shared half and half	7	33	3
Took one to four candies	22	4	2
Left one to four	6	0	1

APPENDIX H

Loadings on a Single Factor of All Variables for Two Preschool Samples

Variable	Middle-Class (N=35)	Lower-Class (N=37)
Verbal I.Q.	.364	.212
Moral Judgments	.526*	.769*
Field-Independence	.543*	.773*
Reflectivity	.730*	.833*
Aggression	-.545*	-.587*
Dependence	-.369	-.218
Autonomy	.402	.260

* Four highest loadings.

Eigenvalues of Matrix

1.	1.83	2.39
2.	.465	.299
3.	.142	.09
4.	.05	.02
5.	.06	- .01
6.	- .193	- .175
7.	- .404	- .227

Amount of Variance accounted for by Factor

1.833	2.386

Communalities

.133	.045
.276	.591
.295	.597
.533	.693
.297	.345
.136	.047
.162	.068