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# The Effects of Three Kinds of Influence upon the Moral Judgments of Objective and Subjective Boys and Girls

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**The Effects of Three Kinds of Influence  
Upon the Moral Judgments of Objective and  
Subjective Boys and Girls**

**by**

**David A. Utech**

**A Dissertation Submitted to the Faculty  
of the Graduate School of Loyola University in Partial  
Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy**

**February, 1971**

## Abstract

Three influencing techniques were used to elicit objective, or immature, moral judgments from children who were shown to be subjective, or mature, on a pretest. The same techniques were used to elicit subjective moral judgments from objective children. The techniques were modeling, experimenter approval of the model's responses, and explanations of her responses by the model. The techniques were incorporated into four treatments which included modeling alone, modeling plus approval, modeling plus explanations, and modeling plus approval plus explanations.

Ten moral judgment stories of the kind originated by Piaget were read to 168 elementary school children to determine their moral orientations. Each story described a well intentioned or accidental act which resulted in a great deal of material damage, contrasted with a selfishly motivated act which resulted in very little damage. One hundred boys and girls, aged 6-4 to 10-2, were selected as subjects. Half the children were decidedly objective in their responses to the pretest, and half were decidedly subjective. The subjects were randomly assigned to one of the four treatment groups or to a control group.

During the experimental phase of the study the experimenter read moral judgment stories alternately to an adult female model and the individual subjects. The model responded in a fashion opposite that of the subject's orientation as measured by the pretest. In some cases her responses were approved by the experimenter. In some cases she explained the rationale for her responses. Subjects in the control group heard the same stories

but were not exposed to a model, experimenter approval, or explanations of any sort. Three weeks after the experimental phase all subjects were asked to respond to another set of moral judgment stories as a posttest. Twenty additional subjects who were selected at random from the original population as an additional control group also responded to the posttest.

The results showed that objective and subjective subjects were significantly influenced by modeling to adopt the alternate moral viewpoint. Objective children were more influenced toward subjectivity than subjective children were influenced toward objectivity. The most effective influencing technique was modeling alone. At no time did the experimenter's approval increase the degree to which the subjects were influenced to change. When the model explained her responses, objective children adopted the subjective orientation more readily than when she did not. For subjective children, however, the model's explanations did not result in a greater number of objective responses. The sex of the subjects was found to be of no consequence in terms of their susceptibility to the influencing techniques.

The results were discussed in terms of their relevance to Bandura's social learning theory and Piaget's cognitive development theory. The powerful modeling effect was interpreted as lending support to Bandura's interpretation of moral development. Piaget's theory was supported by the demonstration that the model's explanations were effective only in influencing children in the direction of increasing subjectivity. Further research was suggested to clarify the relationship of moral judgment to moral behavior.

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Special thanks are due to the Principals, teachers, and children of the lower grades of the Lutheran schools of St. Luke and St. Phillip in Chicago. Without their participation, the experiment could not have been performed.

## Life

David A. Utech was born in Waukegan, Illinois on December 10, 1943. Following his graduation from Luther High School South in Chicago, Illinois, he attended Northwestern University. There he was awarded the Bachelor of Arts degree from the College of Arts and Sciences in 1965. His graduate studies began at Kent State University in September, 1965 and he was awarded the Master of Arts degree in August, 1967. At Kent State University his primary area of study was school psychology, and he served as a school psychology intern for the Portage County, Ohio, Board of Education. In September, 1967, he began studies at Loyola University in pursuit of the Doctor of Philosophy degree in clinical psychology. During his time at Loyola, he completed a one year clinical internship at Presbyterian-St. Luke's Hospital in Chicago, Illinois.

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## Chapter I

### Introduction

People are confronted each day with the need to make decisions about the appropriate reactions to situations in which they are involved. When such decisions include "judgments about the good and right of action" (Kohlberg, 1964, p. 405), the area of moral judgment is involved. The question of how people come to make the moral judgments which they do has been a focus of thinkers since Meno asked Socrates how the concept of virtue is acquired by men. Theoretical explanations of the nature of moral development have ranged from emphasis on the emotional attachment between parent and child (Freud, 1930) to the growing ability of the child to use his intellect to assimilate new points of view and to empathize with them (Piaget, 1965). Early theorizing about the nature of moral development was accompanied by little empirical research except for the classical studies in 1928 by Hartshorne and May and in 1932 by Piaget (Piaget, 1965). A resurgence of interest in the area of moral judgment has been accompanied by considerable research in the past decade stemming largely from the work of Kohlberg and his associates (e.g. Kohlberg, 1963, 1964;

Krebs, 1968; Rest, Turiel, & Kohlberg, 1966).

The present investigation is concerned with one aspect of the recent revival of interest in moral judgments, specifically the effectiveness of several techniques in influencing children to modify their moral judgments. To give perspective to the present investigation, a review of theoretical and empirical work in the area of moral development is a necessary precursor.

#### Psychoanalytic Theory of Identification

The psychoanalytic approach to the issue of moral development is concerned primarily with the affective interaction between the child and his parents (Freud, 1930). The basic vehicle for inculcation of moral values is considered in psychoanalytic theory to be the superego, that portion of Freud's tripartite intrapsychic model which is supposed to reflect parental (and therefore, cultural) values. Often referred to as a representation of the conscience, the superego condemns thought and behavior which transgresses the parental moral code and threatens punishment for such misbehavior. Particularly in the areas of aggressive and sexual behavior, the

superego plays the role of moral overseer.

The superego develops through the process of identification, according to psychoanalytic theory (Watson, 1959). In normal development, children identify with the like-sexed parent, adopting that parent's modes of behavior and values. The Oedipal period is felt to be crucial in the process of identification. In this period, girls identify with their mothers because of the threat of a loss of maternal love, which would result from mother - daughter competition for the father's affection. Boys identify with their fathers out of fear of potential castration which would be the result of competition for the mother. This period normally includes a child's fifth and sixth years, and the identification which is the result of the resolved Oedipal period leads to an adoption of the parent's value system, providing a basis for the superego's prohibitions and the ego ideal's positive strivings.

The psychoanalytic theory of identification has been criticized for its emphasis upon data which cannot be directly observed but which have to be inferred from doll play, developmental reconstruction, or dream analysis (Bandura & Walters, 1963). The particular mechanisms by

which the process of identification is supposed to take place are not clear in Freud's theory. Sears, Maccoby, and Levin (1957) suggested that identification takes place primarily through the child's active practicing of the roles of adults in his life, particularly his parents. Through such role practice, theorized Sears et al., children insure themselves of continued parental affection because they adopt the parents' values and develop a conscience. A similar theory has been advanced by Bandura and McDonald (1963), who have used a social learning framework for interpreting the tendency for children to adopt the attitudes and ideas of the same-sex parent.

Finally, Sears, Rau, and Alpert (1965) have concluded that it is unlikely that a single theoretical mechanism can account for the process of identification. They have proposed that the many different manifestations of mature conscience may develop in different ways.

### Piaget's Cognitive Theory of Moral Development

Another way to approach the issue of moral development is to focus primarily on cognitive judgments rather

than the emotional aspects of socialization. This approach characterized the research of Margaret Schallenberger (1894), who analyzed the essays written by nearly 3500 California children ranging from six to sixteen years in age. The essays were written in response to a story read to them about a girl who had painted all the parlor chairs with a new box of paints in order to make them look pretty. The children were asked to explain what they would have done if they were the mother in such a situation. Younger children advocated severe punishment, such as whipping, and often cited a vengeful reason for the punishment. Older children, on the other hand, more often mentioned trying to reason with the child and reserved the use of strong physical punishment as a teaching device "to make sure she wouldn't do it again." (Schallenberger, 1894, p. 91). In summarizing the different approaches used by the children, Schallenberger reported that "young children judge of actions by their results, older ones look at the motives which prompt them." (p. 96).

The strongest advocate and most prolific researcher for the cognitive approach to moral development has been Jean Piaget. Although he has now abandoned this

particular area of research, his early work (Piaget, 1965) has provided the impetus for many other studies. There is no evidence that Piaget was acquainted with Schallenger's research, but his technique for studying moral judgments was a logical extension of hers and his findings were also similar to hers.

Piaget's approach to moral development was similar to Schallenger's in his emphasis on the judgments which children make about certain actions. This is in contrast to Piaget's contemporary, Freud, who focused on the emotional aspects of moral development, particularly as evidenced in the process of identification in the Oedipal period (Freud, 1930). Piaget also carried out empirical research to help form and then test his hypotheses whereas Freud's theory derived primarily from his clinical experience with neurotic individuals.

The techniques used by Piaget to gather data have often been criticized (Flavell, 1963), but his research has stimulated a great many further studies because of the fascinating things he found out about children in his relatively relaxed research style. In his investigations concerning moral judgment, Piaget and his associates interviewed Swiss children to learn how they formed



judgments. In the first portion of the book which resulted from these interviews, Piaget reported the various ways in which children make rules about playing games of marbles. He noted an orderly progression with increasing age through several stages concerning the rules of the game. Young children play without any formal rules and simply try to hit one another's marbles. As they grow older, children introduce competition and rules to give the players about the same chances for winning. Operating under a set of rules they at first tend to treat the rules as unbreakable and inflexible, considering them to have been laid down by some authority. Older children grow more tolerant of rule breaking when they realize that the rules are simply conveniences and can be altered if greater player equality or convenience can be achieved.

More pertinent to this investigation, however, are the other techniques which Piaget used with the Swiss children. He and his associates told the children pairs of stories and asked them to make judgments about the characters and their actions. One of the pairs of stories he used was the following:

- A. A little boy who is called John is in his room. He is called to dinner. He goes into the dining room. But behind the door

- there was a chair, and on the chair there was a tray with fifteen cups on it. John couldn't have known that there was all this behind the door. He goes in, the door knocks against the tray, bang go the fifteen cups and they all get broken!
- B. Once there was a little boy whose name was Henry. One day when his mother was out he tried to get some jam out of the cupboard. He climbed up on to a chair and stretched out his arm. But the jam was too high up and he couldn't reach it and have any. But while he was trying to get it he knocked over a cup. The cup fell down and broke.

(Piaget, 1965, p. 122)

Piaget asked the children he interviewed to name the naughtier of the two boys in the stories and to indicate how that judgment was made. He concluded that children form such moral judgments on the basis of different considerations at different ages. For example, young children (up to about the age of eight years) reacted to misdeeds in the stories by suggesting that the degree of blame was directly proportional to the degree of damage caused by the misdeed, regardless of the story character's intent. This dimension of judgment was called "moral realism" by Piaget, and he theorized that it is the constraining attitude of adults which is largely responsible for such an attitude on the part of young children. Children with this point of view were said by Piaget to display "objective" moral judgment. Older

children, on the other hand, judged the boy to be naughtier who intended to take some jam when his mother was absent, even though the resulting damage was relatively minor by comparison with that caused by the other boy. This was termed "subjective" moral judgment by Piaget. The different attitudes of younger and older children were similar to those described by Schallenger.

There were other aspects of moral judgment which Piaget defined through his interviews with children. For example, the younger children (again, up to about eight years) believed in "immanent justice." That is, they believed that because justice exists in all animate and inanimate things a person's misdeed will soon be punished even if it is never detected by another person. This was a popular children's explanation for accidents. Older children, however, subscribed to the notion that unfortunate occurrences happen by chance rather than as a consequence of one's previous misdemeanors. Piaget further found that young children believed that the most effective punishment is that which is very severe and is oriented toward retribution and expiation, whereas older children rejected the idea that punishment must be severe in order to be effective and advocated restitution as a

fair means of righting a wrong. Again, the similarity to Schallenger's findings is apparent. Finally, Piaget discovered that young children were willing to hold a group responsible for the actions of one member, while older children felt that each individual was responsible for his own actions.

The particular aspect of moral judgment which has received the most attention from researchers following Piaget has been moral realism, possibly because it can be investigated in a relatively systematic fashion. Piaget theorized that the objective viewpoint of the young child, that deeds are to be judged in terms of their consequences and not by the intentions of the doers, is a result of the normal daily constraints put on the child's activities by his parents (Piaget, 1965). That is, there are many occasions in the life of the young child in which behavior is prohibited regardless of the child's intentions, such as playing with electrical apparatuses or handling certain delicate objects. As the child grows older, however, he begins to interact with his peers on a regular basis. Piaget pointed to this experience as the opportunity for moral judgments to be formed on the basis of mutual need, much as

progressive experience with marble games leads to more democratic and more flexible rules. The adoption of a mature, or subjective, method of forming moral judgments results from the development of the idea of justice from cooperating with peers.

Consistent with Piaget's general dialectical approach to child development, his theory of moral development emphasizes the role of "social interaction (providing) an impetus for disturbing the present cognitive organization, leading to a state of disequilibrium, and ultimately resulting in a new level of cognitive organization [Cowan, Langer, Heavenrich, & Nathanson, 1969; p. 263]." Thus it is apparent that Piaget conceives the development of the child's ability to make subjective moral judgments to be similar to development in other areas of logical thinking. For example, the young child comes to the notion of conservation of volume only by being exposed to demonstrations of the principle which he can understand. Such exposure forces a re-evaluation of the child's earlier belief that pouring a liquid from one container to another container of different size or shape brings about a change in the volume of the liquid (Piaget, 1950; Flavell, 1963). In a similar

way Piaget argued that increasing cooperation and mutual respect among children forces a re-evaluation of the early objective attitude which regards rules as inflexible and focuses exclusively on the material results of one's misdeeds.

### The Relationship Between Freud's and Piaget's Theories

There have been attempts in recent years to place both Freud's theory of identification and Piaget's cognitive theory of moral development into historical perspective and to show how they may be construed as complementary rather than competitive. For example Bobroff (1960) has pointed out that both theories emphasize a progressive growth away from subjectivity (Piaget's "egocentrism," Freud's "autism") toward a realistic awareness of the self in relation to others. In each theory the self is seen as becoming increasingly differentiated, Freud focusing primarily on internal dynamic development and Piaget stressing the child's relationships with the external world. Bobroff attempted to demonstrate a similarity in the developmental sequence of the understanding of rules of marble games (such as Piaget described), and the progressive stages of ego

development as revealed in children's Thematic Apperception Test stories. Bobroff's analysis of the data yielded by 32 normal and 32 retarded (IQ 60 - 80) boys indicated that four basic stages could be determined which were characteristic of the boys at different ages. The boys appeared to go through a particular stage in ego maturation, as shown in their TAT stories, at the same time they were in a comparable stage of socialization, as shown in their use of rules in games of marbles. Bobroff concluded that such a degree of consistency implied that Piaget's theory of mental growth and the psychoanalytic theory of ego development are really different kinds of descriptions of the same thing, namely, the child's developing ability to relate to other people and empathize with them.

Bobroff's research suggests that common ground may be found between the psychoanalytic and the Piagetian descriptions of the child's moral development. But caution is required in interpreting the results of his investigation. For example, he combined subjects of normal and defective intelligence into the same experimental groups. Although he attempted to equate the subjects for mental age within each group by including retarded

children who were two chronological years older than the normal subjects, it is unclear from the data whether he was successful in creating groups which differed significantly from one another in mental age. Also questionable is the procedure by which Bobroff distinguished the various stages of the rules of the marble games. All that can be inferred from his report is that the stages seemed to differ in terms of rule consistency and complexity and also the nature of the relationships among the players. He presented no data to support the assertion that the stages did differ from one another in terms of objective measurements, such as the number of rules or frequency of interpersonal interaction. The stages of ego development were based on Henry's (1956) scheme for analyzing Thematic Apperception Test protocols, which is a systematic procedure based on enumeration of various story themes or content items. The above criticism of Bobroff's research is not intended to downgrade his attempt to point out similarities between two different theories of moral development. It is quite possible that Freud and Piaget were describing different aspects of the same thing when they described identification and moral judgment, but Bobroff's research is not convincing in



this regard.

Another attempt to draw a parallel between the psychoanalytic approach and Piaget's theories is an article by Nass (1966). He compared the morality of constraint (objective morality) in Piaget's theory to the developmental stage described by Freud in which the immature ego is unable to test reality (Nass, 1966). In a neo-Freudian exposition of ego development, Nass compared the ego's capacity to cope with internal drives and the irrational superego as well as the pressures of the outside world to Piaget's description of the development of subjective moral judgments which are based on mutual respect and cooperation. From Nass' point of view, psychoanalytic theory can form a broad theoretical background for interpreting the more specific observations of Piaget. While it may be true that similarities in approach and interpretation may be seen in the two theories, it does not seem logical to subsume one under the other, particularly when psychoanalytic theory is built primarily on what Nass described as "introspective reports, developmental reconstructions, and theoretical inferences [p. 62]." Nevertheless it is important to realize that both theories attempt to explain the process

by which children become socialized in Western culture, and that it is possible that each may contribute heavily to some future integrated theory of socialization.

### The Piagetian Approach in Recent Years

Piaget's work on moral judgment did not initially stimulate much further research, either by himself or by others. In a recent interview (Hall, 1970) Piaget indicated that he became interested in other problems of child development and consequently neglected the area of moral judgment. He did direct a bit of research in Geneva by Lerner (1937), who found that the progression from objective to subjective morality is accompanied by an increase in empathic skill, the ability to anticipate the likely interests and reactions of another person in a social situation. But his book on moral judgment remained untranslated into English until 1948, and American child psychologists were more interested in his work on children's intellectual growth and their use of logic and reasoning.

In the past decade, Lawrence Kohlberg has used the Piagetian theory and technique as the basis for developing an expanded theory of moral development. In a review

of Piaget's theory, Kohlberg (1964) has presented data which support some of Piaget's ideas of moral development and fail to support others. His research technique consisted primarily of asking children to make judgments about moral dilemmas, presented to them in story form. Some were derived directly from Piaget, while other stories were devised by Kohlberg to detect certain kinds of thinking. Like Piaget, Kohlberg found that young children judge an act by its consequences, whereas older children judge it according to the intentions of the actor. Furthermore, young children judge deeds as totally right or wrong, unlike older children who acknowledge the possibility of degrees of guilt and who recognize that others may hold different opinions about the same deed. Also, young children often judge an act to be bad because it elicits punishment, but older children use the criteria of rule violation or injury to others in order to judge an act. Piaget's observations of the young child's belief in "immanent justice" and the efficacy of harsh punishment were also confirmed by Kohlberg.

Piaget (1965) proposed still other characteristics of moral development which were not supported by Kohlberg's research. For example, Kohlberg found no evidence

that increasing maturity in moral judgment was accompanied by greater cooperation with and respect for peers. Nor did he find that older children preferred to be held responsible for acts individually rather than collectively. Kohlberg found that older children were not generally willing to delegate to authority the right to punish; instead they advocated direct retaliation by victims as means of settling grievances. Kohlberg pointed out that his and Piaget's investigations were carried out at much different times and in different cultures, and that the observations by Piaget which he failed to confirm were related primarily to social factors. Those observations which were confirmed were of differences between younger and older children in cognitive skills.

As a result of his own and his colleagues' research (e.g., Rest, Turiel, & Kohlberg, 1969; Turiel, 1966), Kohlberg has formulated a scheme of moral development which progresses through three levels, each level having two stages. This scheme directly reflects Piaget's theory in several respects. Both Kohlberg and Piaget feel that there is an invariant developmental sequence from immature (objective) moral reasoning to mature (subjective) moral reasoning (Kohlberg, 1964; Piaget,

1965). That is, moral development is seen as progressing from one stage to another without the possibility of omitting any stage because each is a necessary foundation for the next. In addition, Kohlberg (1964) agrees with Piaget that it is altogether possible for a child to make mature judgments in one area of moral development (e.g., moral realism) while continuing for a time to make immature judgments in another area (e.g., immanent justice). Both writers also agree on the irreversibility of the process of moral development. That is, once a child has attained a subjective moral attitude (or has progressed from one level to another), he will not revert back to an earlier, less mature, point of view in making moral judgments (Rest, 1967).

Kohlberg's stages of moral development represent an amplification of Piaget's original objective-subjective dichotomy. With his defined stages and moral judgment stories it is possible to determine the degree of moral development of persons of all ages and in many different cultures (Kohlberg, 1968). He has found that children in Mexico, Taiwan, France, and the United States all progress through the same stages of moral thought, and he has concluded that "the nature of (the) sequence is not

affected by widely varying social, cultural, or religious conditions. The only thing that is affected is the rate at which individuals progress through this sequence [Kohlberg, 1968, p. 30]." Kohlberg's scheme of moral development has even been applied to the writings of statesmen and the thoughts of campus radicals.

Like Piaget, Kohlberg ascribes growth in moral reasoning to the increasing influence of the peer group. But he also believes that parents and society at large continue to exert an influence as the child matures. In fact, Kohlberg feels that children learn the same basic moral principles from all chief sources of influence. "Instead of participation in various groups causing conflicting developmental trends in morality, it appears that participation in various groups converges in stimulating the development of basic moral virtues, which are not transmitted by one particular group as opposed to another [Kohlberg, 1964, pp. 406-407]." The peer group is particularly important for the development of mature moral judgments because of the increasing amount of time spent with peers as children grow older. The influence of peers on children's decisions has been shown by Utech and Hoving (1969) to increase relative to parental

influence as children grow older.

### The Social-learning Theory Approach to Moral Development

Recent theoretical and empirical attempts to understand how children come to make certain kinds of moral judgments have been made from a learning theory point of view. This approach conceives of moral development as a process of learning responses to particular situations in order to obtain a positive reinforcement or to avoid a negative reinforcement. Eysenck (1960) has defined moral judgment in the context of a learning theory model.

According to him, conscience is

a conditioned response built up during the child's formative years by the pairing of conditioned stimuli (arising from aggressive, predatory, and overtly sexual actions) and unconditioned stimuli (slaps, beatings, 'shaming', and other punishment) immediately following the conditioned stimuli. Aided by a process of stimulus generalization, this should, in the course of time, lead to an association between the conditioned stimulus and the fear-anxiety responses appropriate to the unconditioned stimulus.

(Eysenck, 1960, p. 11)

The learning theory approach rejects the emphasis upon internal dynamic tensions which are crucial to the psychoanalytic concept of identification. The process of identification is seen as the imitation of adult figures who have the power to dispense rewards.

Aronfreed (1968) has proposed that there are two basic mechanisms by which humans are socialized. The first is the use of a reward or punishment immediately following an act in order to increase or decrease the probability of its reoccurrence. This is the technique to which Eysenck was referring in his definition of conscience. A second mechanism is the learning of appropriate actions through the observation of other people, particularly if the outcome of their behavior is apparent. This second procedure involves the imitation of social models, which involves the ability to cognitively represent to oneself the behavior of someone else and to then reproduce it. Aronfreed argued that imitation as a socialization mechanism only becomes effective when the child attains some empathic ability, since it is necessary for the child to appreciate the possibility of obtaining a reward or punishment for himself if he engages in the same activity as the model.

The basis for Aronfreed's second socialization mechanism is the large body of research which has appeared in recent years which reveals that the behavior of a model can influence behavior in observers. For example, experimental subjects have imitated models' aggressive



behaviors (Bandura, Ross, & Ross, 1961), standards for self-reward or punishment (Bandura & Kupers, 1963), and euphoric behavior (Schachter & Singer, 1962).

There is one study of the influence of models upon the behavior of observers which is directly relevant to the topic of this paper. This is the investigation reported by Bandura and McDonald (1963), in which children who were exposed to models who advocated a particular moral orientation adopted that orientation for themselves. Bandura and McDonald classified boys and girls as objective or subjective in their moral attitudes by means of a pretest based on Piaget's story items. Some items were taken directly from Piaget's book and others were devised by the investigators along the same lines as the original items. Forty-eight children who advocated the subjective moral orientation and 36 others who were objective were identified by the 12-item pretest. Each child was then individually exposed to an adult female model who responded to another set of stories based on Piaget's items. The model was instructed to respond in a manner contrary to the child's moral orientation as determined in the pretest. Thus if a child had given subjective responses on the pretest, the model gave objective

responses. The experimenter alternately read stories to the model and the child, each answering in the presence of the other. Immediately following this phase, in which they had been exposed to the model, the children were taken by a different experimenter to a different room and were asked to respond to still another set of moral judgment stories without any model being present. Bandura and McDonald found that there was a significant tendency for the children to abandon their initial moral orientations, as measured by the pretest, and to adopt the orientation advocated by the model. This newly adopted orientation was maintained during the posttest in the absence of the model.

The experiment by Bandura and McDonald is significant for several reasons. First, they used the same criteria as Piaget for measuring moral orientation and then demonstrated that the children's judgments could be altered simply by exposing them to a model who advocated a different point of view. According to Piaget, such a reorientation as seemed to take place in Bandura and McDonald's study should have taken place only after increasing peer cooperation and respect, resulting in a complete readjustment of cognitive structures. Another

significant aspect of the Bandura and McDonald study is that they found that it made no difference if the subject was verbally reinforced by the experimenter for changing his moral orientation. Subjects who were not reinforced altered their responses as much as those who were reinforced, as long as they were exposed to a model who was reinforced by the experimenter for answering as she did. In fact, subjects who were reinforced for changing their moral attitudes but who were not exposed to any model did not significantly alter their responses. Thus it would seem that the powerful influencing factor was the model exposure, not the rewards received by the subjects.

Perhaps the most significant aspect of the Bandura and McDonald study is the fact that both objective and subjective children were influenced to approximately the same degree to alter their responses in the direction advocated by the model. As it has already been pointed out, Piaget and Kohlberg have stated that it is not to be expected that children will regress in their moral orientations, and that theoretically they should only be able to be influenced to go from an objective to a subjective view. The demonstration by Bandura and McDonald that subjective children can be influenced toward

objectivity calls Piaget's thinking on this issue into doubt.

The Bandura and McDonald study has been criticized recently on theoretical as well as methodological grounds by Cowan et al. (1969). For example, they pointed out that Piaget's "stage" theory of moral development allows for a great deal of flexibility in terms of the age at which a child may abandon the objective attitude and adopt the subjective point of view. They noted that Bandura and McDonald (1963) had interpreted Piaget's theory in a rigid fashion, saying that there are two clear-cut stages of moral judgment, demarcated from each other at about age seven. Furthermore, Cowan et al. argued that Piaget has made it clear that social interaction is crucial to the adoption of a subjective moral attitude, and that Bandura and McDonald were wrong in implying that Piaget conceived of moral development as the natural unfolding of innate propensities.

One of the methodological criticisms of the Bandura and McDonald study made by Cowan et al. was that children had been used as subjects who were apparently in a transitional period, averaging about 20 per cent of their pretest responses in the to-be-conditioned direction.

In their own modification of the experiment, Cowan et al. included children judged to be definitely objective or subjective as well as some who were transitional. They also criticized the fact that the posttest came immediately after the modeling phase in the Bandura and McDonald experiment, and in their own modification included an immediate posttest for some subjects and a posttest after a period of two weeks for other subjects. Cowan et al. also objected to the fact that Bandura and McDonald had considered only the children's responses which named the "naughtier" story character without considering the children's explanations for their responses. Cowan et al. considered both types of responses in their experiment.

In spite of all the criticisms they leveled at the Bandura and McDonald study, Cowan et al. found nearly the same results when they replicated the experiment with their own modifications. Reflecting on the results of the Cowan et al. investigation, Bandura (1969b) commented,

Consistent with the results of the previous experiment, the authors found that modeling emerges as a significant determinant of moral judgments regardless of the direction in which judgmental behavior is being modified, the time at which the post exposure tests are

administered, and whether the analysis is made in terms of the children's judgments or the reasons they give for their decisions.

(p. 275)

The fact that models can indeed influence children to alter their moral judgments appears to have been established by the Bandura and McDonald and the Cowan et al. studies. The larger question of just how children's moral judgments are influenced by models is not answered by those investigations, however. An attempt to isolate some of the critical factors in model influence has been made by Dworkin (1968). He pointed out that although the Bandura and McDonald experiment demonstrated the effectiveness of models as a means of altering children's moral judgments, it is impossible to determine from that experiment just what factors may have been important or crucial in influencing the children's judgments. Dworkin showed that in the modeling phase of the Bandura and McDonald study the model answered in a manner contrary to the subject's pretest orientation and included in her answer not only the name of the naughtier person (identification) but also an explanation (cognitive information) about why she considered that person to be naughtier than the other. In addition, the model was verbally reinforced by the

experimenter each time she responded. Dworkin reasoned that the children in the Bandura and McDonald study could have learned the concept of intentionality in several ways. First, they may have simply imitated the model and always responded with the name of the person who intended mischief. Second, they could have used the cognitive explanation, or rationale, which the model gave for identifying the naughtier person. Finally, the children may have reacted to the reinforcement which the model always received when she responded, and may have thereby responded in a manner similar to the model's. Dworkin attempted to separate these possible methods of learning the concept of intentionality. He also included an important control condition which neither Bandura and McDonald nor the Cowan et al. studies had included.

The experimental design used by Dworkin was based on the model of the Bandura and McDonald experiment. It involved a pretest to establish the children's base rates of responding, an experimental phase in which the children were individually exposed to an adult female model, and finally a posttest after a period of three weeks. In the experimental phase, some children were exposed to a model who merely specified the name of the story character

whom she considered naughtier. In some cases the model was reinforced by the experimenter for her response. Some children saw a model who not only named the naughtier story character but also justified her answer by appealing to the concept of intentionality. All the subjects were girls, and all were influenced in the direction of intentionality (subjectivity). The control condition included children who were pretested, then read stories by the experimenter with no model present, and finally posttested.

As in the studies cited earlier, Dworkin found that his subjects shifted their moral judgments to a significant degree in the direction advocated by the model. The most effective technique was that which included cognitive information, as shown by the fact that subjects in this condition altered their judgments to a greater degree than did the subjects in the other conditions. For all his subjects, the relative amount of shift in moral orientation was maintained over a period of three weeks until the posttest was administered. Dworkin concluded that the most effective moral training technique would be one which focused on cognitive processes, communicating to the child the relevant cognitive dimensions of the



moral concept being taught.

Major Issues in the Area of Moral Judgment Today

There are several unresolved issues to which the present experiment has been directed. Foremost among these is the process by which children acquired a mature, or subjective, moral point of view. The theoretical and empirical works of Freud and Piaget on this point have been briefly reviewed, as well as the learning theory point of view, particularly as advocated by Bandura. Freud's theory of identification is based primarily on inferences gained from clinical work with neurotic individuals in which introspective reports, dream analysis, and developmental reconstructions constitute the major source of data. Such a theory does not easily lend itself to experimental verification.

Piaget's theory is more readily translated into experimental manipulation since it is derived primarily from empirical observations and tests. The modeling technique described by Bandura and McDonald (1963) appears to be a good procedure by which to test some of Piaget's notions. This has already been done, with Bandura and McDonald and Cowan et al. demonstrating how models can be used to alter the

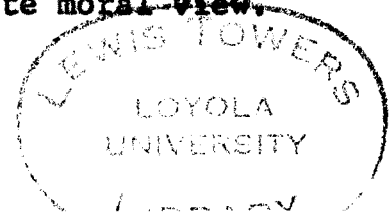
moral judgments of children without any reference to increasing or decreasing peer cooperation and respect. These latter two investigations have also demonstrated that it is possible to influence children from a subjective to an objective attitude, something which does not seem to fit in with Piaget's theory. Finally, Dworkin (1968) has described some factors in the modeling situation which appear efficacious in influencing children's moral judgments.

The issue of the process by which models influence the moral judgments of children has not been completely resolved by Dworkin's work. For example, Dworkin analyzed the effects of modeling alone, modeling plus reinforcement, and modeling plus cognitive information. The present experiment analyzed those effects as well as the effect of cognitive information combined with modeling and reinforcement. Furthermore, the cumulative effects of exposure to Piaget-type moral judgment stories have not been studied. Thus the present investigation included a control group which received only a posttest without prior exposure to the pretest or modeling.

The investigation by Bandura and McDonald (1963) has been the only one in which the effects of the children's sex has been systematically studied concerning their

susceptibility to models who advocate different moral viewpoints. Their study revealed no differences between the moral judgment responses of boys and girls before or after they were exposed to the models. The study by Cowan et al. (1969) included both boys and girls, but their responses were not analyzed separately by sex. Dworkin's (1968) study involved only girls.

Although sex was not an important variable in the Bandura and McDonald (1963) experiment, other studies indicate that sex should continue to be investigated in the context of children's moral judgments. For example, Bandura, Ross, and Ross (1961) have reported that boys imitate the aggressive acts of a model to a significantly greater extent than girls. Likewise Sears et al. (1957) reported that in their daily activities and doll play boys consistently displayed more overt aggression than girls. The most aggressive boys were those whose fathers provided aggressive models. Since aggression is often linked with moral issues in our society and either directly or indirectly is the topic of many of Piaget's moral judgment stories, it is reasonable to believe that differences may be found between boys and girls in terms of their susceptibility to a model who advocates an alternate moral view.



Sex does not appear to be a significant variable when knowledge of basic moral virtues or resistance to temptation is considered. Hartshorne and May (1928) found that boys and girls were equally familiar with moral rules and also equally susceptible to neglecting these principles when given the opportunity to do so without being caught. Krebs (1968) has reported similar findings. According to Kohlberg's (1963) six-stage model of moral maturity, the girls and boys in Krebs' study scored at the same level. And girls and boys succumbed equally often to the temptation of cheating at a game in order to win prizes. In spite of these findings, Krebs reported that teachers consistently rated girls as more moral than boys.

The present investigation included both boys and girls and analyzed their responses separately in an attempt to replicate Bandura and McDonald's (1963) study.

Finally, the question of reversibility of moral attitude should be focused upon. Piaget, Kohlberg, and Kohlberg's associates (Rest, 1968; Rest, Turiel, & Kohlberg, 1969) have argued that moral development is essentially an irreversible process. That is, development can proceed in the direction of greater maturity, but children cannot really be influenced to adopt a less

mature point of view. The work of Turiel (1966), often cited, demonstrated that children prefer moral judgments one or two levels above their own level (in the Kohlberg scheme) rather than judgments which are one level below their present level. In contrast to this are the investigations by Bandura and McDonald (1963) and Cowan et al. (1969), which did demonstrate that children can be influenced toward objective moral reasoning even though they previously used subjective moral reasoning. Furthermore, LeFurgy and Woloshin (1968) showed that children can be influenced toward objective moral judgments by means of peer influence. These investigators used tape recorded responses by the subjects' peers (acting as the experimenter's confederates) to influence the subjects to adopt a different moral point of view. Turiel (1969) has argued that the children in such experiments do not actually adopt the model's mode of thinking, but that they simply acquiesce in order to obtain social reinforcement. For this reason the present investigation included several different techniques to influence children to respond in a manner contrary to their original orientations. These techniques employed logical explanations and social reinforcement singly and in combination so that the relative

importance of each could be demonstrated.

Although it would appear to have been established that subjective children can be influenced to adopt objective moral reasoning, the question remains as to whether such influence is as effective in the first place or as long-lasting as when objective children are influenced toward subjective moral reasoning. This is an important point, for Bandura's (1969) theoretical position is that it should be equally possible to influence children in either direction. Cowan et al. (1969) have claimed that their data showed that objective children were influenced more toward subjectivity than subjective children were influenced toward objectivity. Bandura (1969) has pointed out, however, that this contention is not supported by quantitative analysis of the data, but only by visual inspection of one of their printed figures. A similar comment can be made concerning the figures of LeFurgy and Woloshin (1968), which appear to show that children are more readily influenced in the "natural" direction (toward subjectivity). This observation has not been supported by statistical analysis, however. Thus it remains an open question as to whether children can be as readily influenced to adopt an objective moral orientation as they

can be influenced toward a subjective orientation. For this reason the present investigation included an attempt to influence objective children toward subjectivity and vice versa, in hopes of contributing to a resolution of the theoretical difference between Piaget's stage theory and Bandura's social learning theory.

### The Present Investigation

The experiment reported here has relied heavily on the research of Bandura and McDonald (1963) and Dworkin (1968). The first purpose of the experiment has been to demonstrate the fact that it is possible to use models to influence children to make certain kinds of moral judgments. The other purpose has been to experimentally test the following hypotheses:

1. The influencing techniques used in the present experiment differ in the degree to which they bring about changes in children's moral judgments. In order of decreasing effectiveness the techniques are modeling plus reinforcement plus cognitive information, modeling plus cognitive information, modeling plus reinforcement, and modeling alone.
2. Objective children are more influenced to alter

their moral judgments than subjective children.

3. Children differ in susceptibility to influences to change their moral judgments according to their sex.



## Chapter II

### Method

#### Subjects

A total of 168 children from two Lutheran elementary schools in Chicago were pretested with a set of 10 moral judgment stories. Fifty boys, aged 6-4 to 9-11, and 50 girls, aged 6-6 to 10-2 were selected as subjects on the basis of their pretest scores. Half the boys and half the girls were decidedly "objective" in their moral orientations, having responded in a subjective fashion on the pretest a mean number of only 1.76 times. The remaining children were decidedly "subjective", having responded in a subjective fashion on the pretest a mean number of 8.52 times.

An additional 20 subjects were chosen at random from the classrooms which served as a source for the original sample of 168 subjects. These 10 boys and 10 girls formed one of the control groups, and were exposed only to the posttest. The boys ranged in age from 6-5 to 9-7, the girls from 6-6 to 9-8.

The author of this study served as the experimenter. The models were two female undergraduate students from Northwestern University.

### Stimulus Materials

The moral judgment stories were obtained from the work of Dworkin (1968).<sup>1</sup> Following his procedure, the subjects were individually presented with pairs of stories, each of which described a well intentioned or accidental act which resulted in a great deal of material damage, contrasted with a selfishly motivated act which resulted in very little damage. The subjects were given the following instructions:

I have some stories to read to you. I am interested in knowing what you think about them. Each story will tell about two different children and the things they do. I want you to listen very carefully because after each story I will ask you some questions. Here is the first story.

The first story in Appendix A was then read by the experimenter. At the end of the story, the subject was asked, "Who do you think did the naughtier thing, Oscar the first boy, or Bill the second boy?" After the subject's response he was asked "Why do you think \_\_\_\_\_ was naughtier than \_\_\_\_\_?"

During the experimental treatment phase, the same instructions and questions were read to the model, who

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1 Appreciation is expressed to Dr. Earl Dworkin, who granted permission for the use of the moral judgment stories.

was presented to the child subject as a naive subject. The experimenter read the first story to the model, the second to the subject, and so forth. The stories used in the experimental phase for the subjects are found in Appendix B, and in Appendix C for the models. The stories used for the posttest are in Appendix D.

### Design

The experimental design for the present study is summarized in Table 1. The basic design of Dworkin's (1968) study was followed, which was in turn based largely on the work of Bandura and McDonald (1963).

The present investigation included children as subjects whose initial moral orientations were either objective or subjective. Several different procedures were used to influence objective children to give subjective responses and to elicit objective responses from subjective children. In the first procedure, Treatment 1, the model responded to all the moral judgment stories by simply naming the person in the story whom she considered to be naughtier. The experimenter verbally approved the model's responses by saying "Good" or "A fine answer" after each response. In treatment 2, the model also responded with the names of the naughty story characters, but her

TABLE 1

Summary of the Experimental Design

Experimental Group	Phase I: Pretest to establish the baseline moral judgments of the subjects (objective or subjective).	Phase II: Experimental phase. Subjects are exposed to a model who advocates the opposite moral orientation.	Phase III: Posttest after three weeks. Subjects respond to stories as in pretest, but with no model present.
Group A: Objective boys (N=25)	Pretest for all subjects.	<p>Treatment 1. Model gives <u>names</u> of naughty story characters. Experimenter <u>approves</u>. (N=5)</p> <p>Treatment 2. Model gives <u>names</u>. Experimenter is <u>neutral</u>. (N=5)</p> <p>Treatment 3. Model gives <u>names plus explanations</u>. Experimenter <u>approves</u>. (N=5)</p> <p>Treatment 4. Model gives <u>names plus explanations</u>. Experimenter is <u>neutral</u>. (N=5)</p> <p>Treatment 5. Control group. Neutral experimenter reads stories. No model. (N=5)</p>	Posttest for all subjects.

TABLE 1 (Continued)

Experimental Group	Phase I: Pretest.	Phase II: Experimental phase.	Phase III: Posttest.
Group B: Subjective boys (N=25)	Pretest for all subjects.	Treatment 1. As in Group A. 2. 3. 4. 5.	Posttest for all subjects.
Group C: Objective girls (N=25)	Pretest for all subjects.	Treatment 1. As in Group A. 2. 3. 4. 5.	Posttest for all subjects.
Group D: Subjective girls (N=25)	Pretest for all subjects.	Treatment 1. As in Group A. 2. 3. 4. 5.	Posttest for all subjects.
Group E: 10 boys, 10 girls se- lected at random from population sources of Groups A,B,C, and D.	No pretest for any subjects.	No treatments for any subjects.	Posttest for all subjects.

answers were not approved by the experimenter. Treatment 3 included explanations by the model as to why she named a particular person as naughtier. When the model attempted to influence children toward subjectivity her explanations focused on the intentions of the story characters. She stressed the relative amounts of physical damage when children were influenced toward objectivity. The model's responses in Treatment 3 were verbally approved by the experimenter. Treatment 4 was identical to Treatment 3 except the experimenter's approval was omitted.

Treatment 5 was a control condition in which the experimenter asked subjects to respond to moral judgment stories in the absence of any model. An additional control group is listed in Table 1 as Group E. Subjects in this group were exposed only to the posttest, and were not pretested or influenced by models.

The design of the present investigation made possible the separate analyses of the moral judgment responses of boys and girls. Thus the subjects' responses were analyzed according to the subjects' sex, initial moral orientations, and treatments.

## Procedure

After obtaining the permission of the school administrators and teachers directly involved with the study, the experimenter visited each of the classrooms which furnished subjects for the study. He was introduced to the children by the teacher as a man who was interested in learning what children thought of some stories. The experimenter explained that he would ask some of the children to come with him to listen to the stories, and that some would be asked to listen more than one time. He emphasized that the procedure by which he chose children was governed by chance and that children could not expect to be chosen on the basis of grades, appearance, or special pleading.

Phase I: Pretest to establish baseline moral judgments of the subjects. In this phase the experimenter read the 10 pairs of pretest stories to children individually to determine their base rates of responding. In order to obtain a sample of 50 objective and 50 subjective children, 168 children were pretested. The children were chosen at random from a master list of the first four grades at each school and were seen privately by the experimenter. Subjects were classified as objective if they responded to the stories in a mature fashion 0, 1, 2, or 3 times. Subjects

who responded maturely 7, 8, 9, or 10 times were classified as subjective. Those children who were transitional, responding maturely 4, 5, or 6 times, were not used as subjects for the remaining phases of the experiment. When 25 subjects for each of the major groups listed in Table 1 had been selected, they were randomly assigned to the five treatments, with the provision that each treatment included five subjects.

Each child was cautioned at the conclusion of the pretest phase not to discuss any of the stories with classmates or siblings. The teachers were also asked to discourage any such discussion, and they reported that the children were very good about "keeping the stories a surprise for the others."

Phase II: Experimental treatment. Approximately ten days intervened between the pretest and this phase of the experiment. The subjects were again seen individually by the experimenter in the same room that was used for pretesting. The experimenter explained to each subject that he had still another set of stories to read to him. He also explained the presence of the female model by saying that he was interested in learning the reactions of grown-ups to these kinds of stories, and that he had asked her



to come to the school to listen with the children in order to save time. The experimenter read the instructions to the model and pointed out to the subject that the procedure was the same as in the pretest. The first story was then read to the model, the second to the subject, and so forth.

The model was instructed by the experimenter to respond to the stories in a fashion contrary to the subject's pretest orientation. Thus if the subject responded objectively on the pretest, the model responded subjectively. If the experimental condition required, the model explained her choice of the naughtier story character, and the experimenter approved her response. If the model's responses were approved, so were the subject's whenever they agreed with the model's moral orientation.

Twenty subjects were not exposed to a model during the experimental phase. These subjects comprised a control group which heard the same stories as the other subjects, but which was not exposed to a model. At the conclusion of this phase, all subjects were cautioned not to discuss any of the details with their classmates or siblings.

Phase III: Posttest. After a period of time averaging 20 days since the experimental phase each subject was exposed to a final set of ten moral judgment stories. The

subjects were told that the experimenter wanted to learn their ideas about some new stories which were similar to those they had heard before. At the completion of this phase, each subject was thanked for his cooperation and was urged not to discuss the stories with his classmates or siblings.

Twenty subjects who had been selected at random from the classrooms which supplied the original 168 subjects for the pretest were exposed to the posttest stories. These subjects had not heard the pretest or experimental stories, and it was determined through questioning that they had not been previously briefed by other subjects. These 20 subjects formed the second control group.

After all the subjects had gone through the final phase of the experiment the experimenter again visited each of the classrooms to thank the children and to debrief them. It was felt that a debriefing was necessary in order to eliminate any confusion the subjective children may have felt after being exposed to a model who advocated the objective, or immature point of view. The experimenter read three of the moral judgment stories to each class and explained why he felt that the subjective orientation was correct. He also explained that the model had advocated a

different position from their own in order to see if the children would adopt her viewpoint. Nearly all the children said they were sure that they had not been influenced by the model's responses, and they did not appear to have been confused by the experience. The debriefing procedure had the additional benefit of including those children who had felt left out because they had not been chosen as subjects or because they had heard stories only one time.

## Chapter III

### Results

#### Results Pertaining to the Experimental Subjects

The data resulting from the 80 experimental subjects were subjected to a repeated measures analysis of variance. Among the variables examined in this analysis were the initial moral orientations of the subjects (two levels of maturity, objective and subjective), the four experimental treatments, the sex of the subjects, and the three phases of the experiment. For all subjects, the unit of measure was the number of subjective moral judgments made during each phase of the experiment. This analysis is summarized in Table 2.

Of the many variables examined, only two proved to be significant sources of variance. These were the Maturity ( $F=43.68$ ;  $df=1,64$ ;  $p<.001$ ) and Phases ( $F=6.76$ ;  $df=2,128$ ;  $p<.005$ ) variables. Also significant was the interaction between them ( $F=51.27$ ;  $df=2,128$ ;  $p<.001$ ). The significant Maturity variable reflects the fact that the subjects in the present study were selected on the basis of their scores in the pretest phase as either objective (immature) or subjective (mature) in their moral orientations. Thus the two groups were decidedly different in terms of

Table 2

Analysis of variance of Subjective Moral Judgment  
Responses by all Experimental Subjects

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Total	239		
Between Subjects	79		
Objective/Subjective Orientation (Maturity)	1	507.51	43.68****
Sex	1	14.51	1.25
Treatments	3	1.02	0.09
Maturity x Sex	1	12.61	1.09
Maturity x Treatments	3	22.66	1.95
Treatments x Sex	3	20.90	1.80
Treatments x Sex x Maturity	3	9.71	0.84
Error Between	64	11.62	

\*\*\*\*  $p < .001$

Table 2 (Continued)

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Within Subjects	160		
Phases of Experiment	2	31.91	6.76***
Phases x Maturity	2	242.01	51.27****
Phases x Sex	2	8.64	1.83
Phases x Treatments	6	3.70	0.78
Phases x Sex x Maturity	2	3.57	0.76
Phases x Treatments x Maturity	6	8.53	1.81
Phases x Treatments x Sex	6	4.06	0.86
Phases x Treatments x Sex x Maturity	6	7.30	1.55
Error Within	128	4.72	

\*\*\*  $p < .005$

\*\*\*\*  $p < .001$

maturity of moral judgments. Figure 1 illustrates the fact that the 40 objective subjects began the experiment with a mean number of 1.76 subjective moral judgments on the pretest, whereas the 40 subjective subjects began with a mean number of 8.52 subjective judgments. Figure 1 also indicates that a difference between the objective and subjective groups continued to exist throughout the three phases of the experiment, although interaction over the phases is apparent.

After the two groups of subjects were purposely selected to be of greatly different moral orientations, efforts were made to influence the objective children to make subjective judgments and to influence the subjective children to make objective judgments. The significant interaction between Maturity and Phases reported in Table 2 is thus an artifact of the preselection and experimental procedures.

Table 2 indicates that Phases alone proved to be a significant variable in the present experiment. Figure 2 reveals that when the data from all the experimental subjects are considered together, there was a significant trend toward increasing subjectivity over the three phases of the experiment. It should be remembered that the

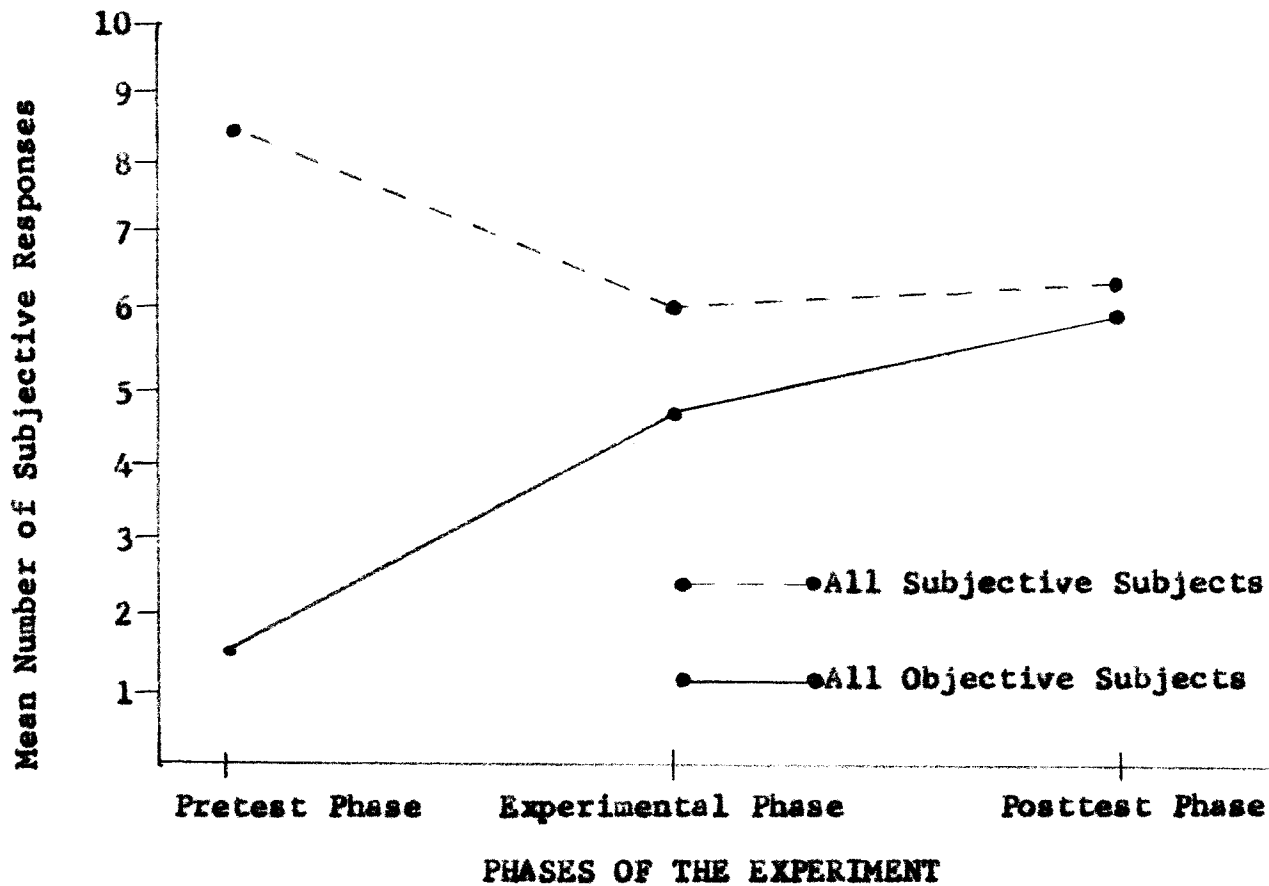


Figure 1 Mean number of subjective moral judgment responses produced by objective and subjective subjects at each phase of the experiment.



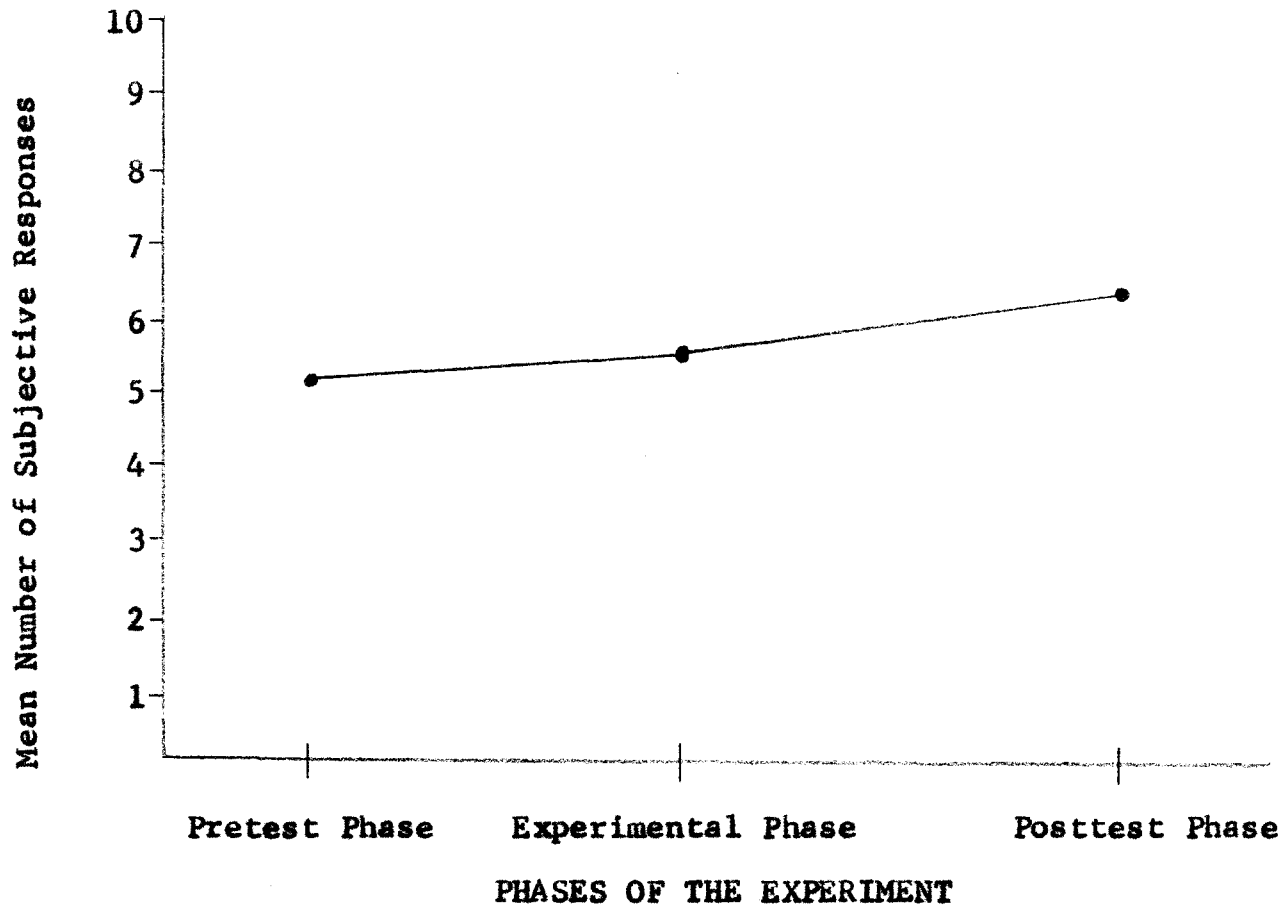


Figure 2 Mean number of subjective moral judgment responses produced by the combined groups of objective and subjective subjects at each phase of the experiment.

objective and subjective groups of subjects were equal in number and received the same kinds of influences toward the opposite sorts of moral judgments. Thus it can be concluded that the subjects of an objective orientation were more influenced toward subjectivity than subjective subjects were influenced toward objectivity. The second hypothesis was thereby supported.

The analysis summarized in Table 2 revealed that the subjects' sex did not affect the degree to which they were influenced to change their moral judgments. The third hypothesis, that children would differ in susceptibility to influence according to their sex, was not supported.

#### Results Pertaining to the Effects of the Treatments Upon the Objective and Subjective Groups of Subjects

The first hypothesis of the present study was that the effects of the several treatments would be different, as reflected in the relative amounts of change of the subjects' moral judgments. Further analysis was required to adequately test this hypothesis, since the analysis summarized in Table 2 included subjects who were influenced toward greater subjectivity as well as subjects who were influenced toward greater objectivity. By including both groups of subjects, who were influenced in opposite direc-

tions, the possible different effects of the treatments were obscured.

Because the analysis summarized in Table 2 indicated that the sex of the subjects was not a significant variable in the present study, and because separate analyses for objective and subjective subjects were necessary in order to determine the effects of Treatments, the data for the sexes were combined and then analyzed separately according to the subjects' moral orientations on the pretest. These data are summarized in Table 3.

The four experimental treatments differed from one another in terms of the inclusion or exclusion of the model's explanations for her responses and also the inclusion or exclusion of the experimenter's verbal approval of the model's responses. Thus Treatment 1 involved no explanations by the model, plus the experimenter's approval. Treatment 2 included no explanations and no approval. Treatment 3 incorporated explanations as well as approval. Treatment 4 utilized explanations, but without the experimenter's approval. Modeling was incorporated into each treatment. It was hypothesized that the four experimental treatments would result in significantly different numbers of subjective moral judgments. To test this hypothesis,

Table 3

Mean Number of Subjective Moral Judgments  
Made by Objective and Subjective Subjects in Four  
Experimental Treatments at Three Phases of the Experiment

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Objective Subjects

	<u>Pretest Phase</u>		<u>Experimental Phase</u>		<u>Posttest Phase</u>	
	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
Treatment 1	2.20	0.92	5.20	3.33	4.80	3.74
Treatment 2	1.80	1.14	4.00	3.23	5.20	3.16
Treatment 3	1.70	1.16	5.70	3.53	8.20	2.10
Treatment 4	1.10	0.99	4.70	2.71	6.30	3.33

Subjective Subjects

	<u>Pretest Phase</u>		<u>Experimental Phase</u>		<u>Posttest Phase</u>	
	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
Treatment 1	8.60	1.17	5.80	2.35	6.50	3.06
Treatment 2	8.80	1.03	6.20	2.97	8.10	3.38
Treatment 3	8.10	0.99	5.80	3.16	5.30	3.46
Treatment 4	8.90	1.20	7.00	3.50	6.70	3.86

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simple analyses of variance were performed upon the data for objective and subjective subjects from each phase of the experiment. These analyses are summarized in Table 4, which shows that none of the treatments differed from one another at any phase of the experiment for either group of subjects. The hypothesis was therefore rejected.

Although the four treatments were shown not to differ from one another when compared separately, the data were re-combined so that the effects of experimenter approval or nonapproval could be demonstrated. Treatments 1 and 3, which included the experimenter's approval of the model's responses, were compared with Treatments 2 and 4, which did not include such approval. The data were also analyzed for the effects of the model's explanations. Thus the treatments which incorporated explanations (Treatments 3 and 4) were compared with those which did not (Treatments 1 and 2). Table 5 summarizes the results of this analysis for subjective subjects. The only significant variable in this analysis was Phases ( $F=13.02$ ;  $df=2,72$ ;  $p<.001$ ) reflecting the fact that significantly different numbers of subjective moral responses were given by subjective subjects in the three phases of the experiment. This is illustrated in Figure 1. No significance

Table 4

Summary of Analyses of Variance of Subjective  
Moral Judgments by Objective and Subjective Subjects  
in Four Treatments at Each Phase of the Experiment

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	<u>F*</u>	<u>P</u>
<b>Objective Subjects</b>		
Pretest Phase	1.85	N.S.
Experimental Phase	0.51	N.S.
Posttest Phase	2.35	N.S.
<b>Subjective Subjects</b>		
Pretest Phase	1.04	N.S.
Experimental Phase	0.36	N.S.
Posttest Phase	1.13	N.S.

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\*df = 3,36

Table 5  
Analysis of Variance of Subjective Moral Judgments  
for Subjective Subjects

Source	<u>df</u>	<u>MS</u>	<u>F</u>
Total	119		
Between Subjects	39		
Approval/No Approval Treatments	1	26.14	2.18
Explanation/No Explanation Treatments	1	4.04	0.34
Approval x Explanation	1	1.18	0.10
Error Between	36	12.00	
Within Subjects	80		
Phases of Experiment	2	65.10	13.02****
Phases x Approval	2	3.13	0.63
Phases x Explanation	2	7.43	1.49
Phases x Approval x Explanation	2	0.21	0.04
Error Within	72	5.00	

\*\*\*\*p < .001

accompanied the variables of Approval or Explanations or their interactions. This suggests that, for subjective subjects, the decreasing number of subjective judgments over the three phases was not due to any particular influencing technique employed by the model and experimenter. The subjective subjects produced fewer subjective responses when exposed to a model who responded in an objective fashion, irrespective of the model's explanations or the experimenter's approval.

The results of a similar analysis for objective subjects are presented in Table 6. Again, Phases proved to be a highly significant variable ( $F=44.71$ ;  $df=2,72$ ;  $p<.001$ ). Also significant was the interaction between the variables of Phases and Explanations ( $F=4.38$ ;  $df=2,72$ ;  $p<.025$ ). For the objective as well as the subjective subjects, it made no difference whether the model's responses were approved by the experimenter. But the increase in the mean number of subjective responses over the three phases of the experiment did depend upon whether the model explained her responses.

To determine the nature of the interaction between the Phases and Explanations variables, a further analysis of the data from the objective subjects was made by means



Table 6  
Analysis of Variance of Subjective Moral Judgments  
for Objective Subjects

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Source	<u>df</u>	<u>MS</u>	<u>F</u>
Total	119		
Between Subjects	39		
Approval/No Approval Treatments	1	18.41	1.54
Explanation/No Explanation Treatments	1	16.88	1.41
Approval x Explanation	1	4.39	0.37
Error Between	36	11.97	
Within Subjects	80		
Phases of Experiment	2	208.81	44.71****
Phases x Approval	2	0.91	0.91
Phases x Explanation	2	20.47	4.38**
Phases x Approval x Explanation	2	4.52	0.97
Error Within	72	4.67	

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\*\*p < .025

\*\*\*\*p < .001

of t tests. The No-Explanation treatments (Treatments 1 and 2) were compared with the Explanation treatments (Treatments 3 and 4) at each phase of the experiment. The comparisons are summarized in Table 7, which shows that only in the posttest phase did the subjects in the Explanation and No-Explanation groups give significantly different mean numbers of subjective responses. Figure 3 illustrates that in the posttest phase, objective subjects who had heard the model's explanations gave 7.3 subjective responses, whereas those to whom the model did not explain her answers gave only 4.5 subjective responses in the posttest phase.

#### Results Pertaining to the Control Groups

The present investigation included two control groups. The first group of 20 subjects was treated exactly like the subjects who were exposed to the experimental treatments except that no model was present during the experimental phase. Measures were obtained from these control subjects at each of the three phases of the experiment. Ten control subjects were objective on the pretest, ten were subjective. Analyses of variance of the mean number of subjective moral judgments produced by the objective and subjective control subjects across the three phases of the

Table 7

Comparisons of No-Explanation Treatments (Treatments 1 and 2)  
with Explanation Treatments (Treatments 3 and 4) for Objective  
Subjects at Each Phase of the Experiment

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	<u>df</u>	<u>t</u>	<u>P</u>
Pretest Phase	38	1.82	N.S.
Experimental Phase	38	0.60	N.S.
Posttest Phase	38	2.27	.05

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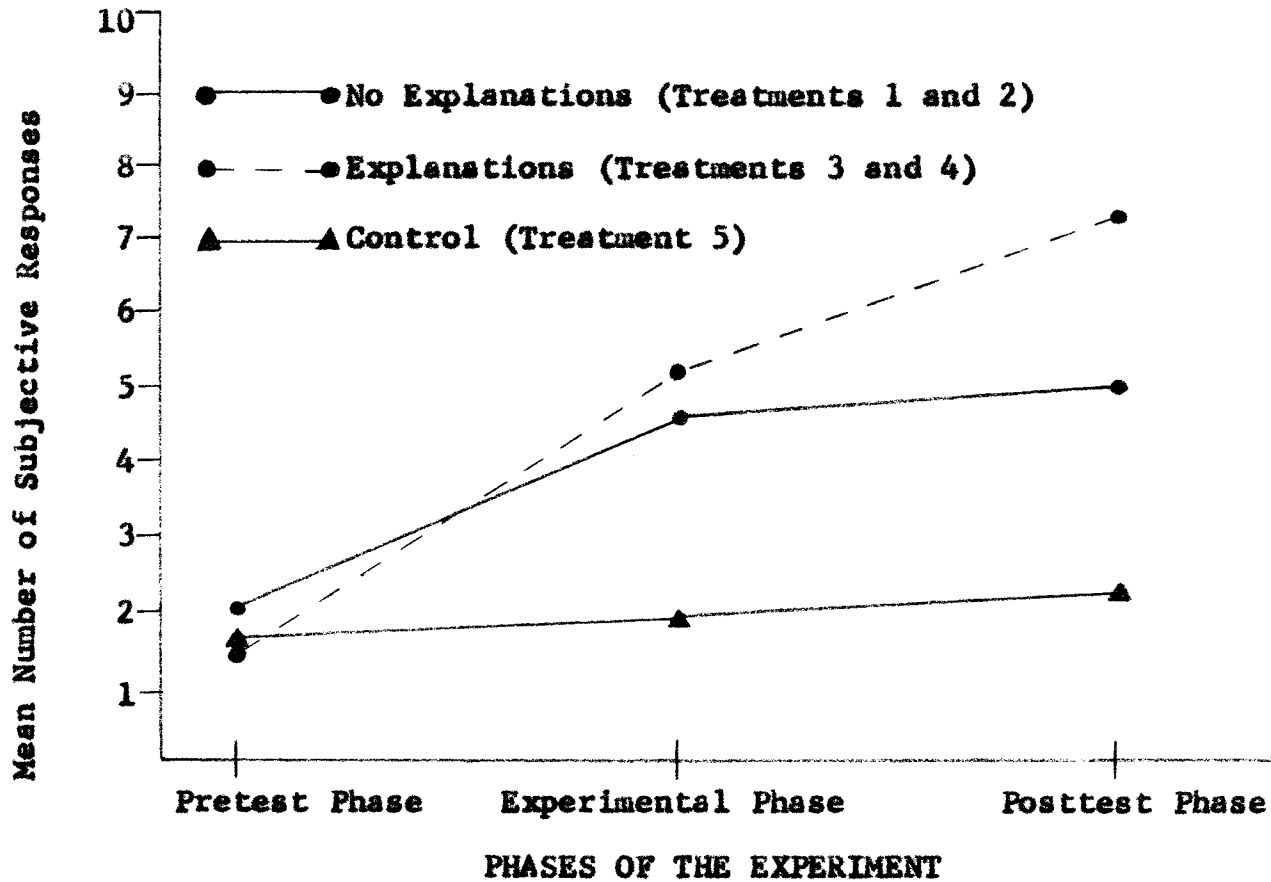


Figure 3 Mean number of subjective moral judgment responses produced by objective subjects at each phase of the experiment who received treatments including explanations or no explanations.

experiment were performed. The values of  $F$  were nonsignificant for objective control subjects ( $F = 0.51$ ,  $df = 2,18$ ,  $p > .05$ ) as well as for subjective control subjects ( $F = 0.60$ ,  $df = 2,18$ ,  $p > .05$ ), indicating that the control subjects produced essentially the same number of subjective responses at each phase.

The second control group was also made up of 20 subjects. These children were randomly selected from the classrooms which supplied the original 168 subjects for the pretest phase of the experiment. Their only contact with the moral judgment stories was with the posttest, administered at the same time as the 100 other subjects.

It was necessary to compare the moral judgments of the posttest control subjects with the judgments made by the original 168 subjects since they were all selected at random from the same population. The 80 experimental subjects and the 20 subjects from the first control group, on the other hand, were selected on the basis of their scores on the pretest. The mean number of subjective moral judgments made by the 168 original subjects was 4.67. The mean number of subjective moral judgments made by the 20 posttest control subjects was 5.20. These means do not differ significantly ( $t=0.74$ ;  $df=186$ ). It can

therefore be concluded that the interval of time from pre-test to posttest did not alone contribute to any changes in the moral judgments of the subjects.

## Chapter IV

### Discussion

#### The Effectiveness of Models in Influencing Children's Moral Judgments

The first purpose of the present experiment was to demonstrate the fact that children's moral judgments can be influenced by exposing them to adult models who advocate opposite moral points of view. This is a fact which has been demonstrated in the past by Bandura and McDonald (1963), Dworkin (1968), and Cowan et al. (1969). The present study gave further support to the findings of Bandura and McDonald and Cowan et al. that children's moral judgments can be influenced regardless of the moral orientations with which they began the experiment. That is, objective children can be influenced to make subjective moral judgments, and subjective children can be influenced toward objectivity.

The fact that subjective children can be influenced toward objectivity might seem to call into question Piaget's cognitive development theory of the process by which children come to make mature moral judgments. Piaget theorized that the primary means by which children abandon the objective and adopt the subjective point of

view is through increased cooperation with and mutual respect for peers (Piaget, 1965). The implication is strong in Piaget's theory that children will not reverse themselves to adopt an objective viewpoint after they have previously attained a subjective attitude. Piaget considers the progression from objectivity to subjectivity to be in a natural direction, its speed determined primarily by the length of time it takes a child to become relatively free from adult constraint. Because adults must impose a system of rules for living upon children before they are capable of understanding the reasons behind the rules, adults fall into the habit of issuing instructions without furnishing a rationale and children unilaterally respect such rules without questioning why they were given. His theory further assumes that when a child begins to interact with other children on a reciprocal basis, judgments about the good and right of action begin to be made on the basis of the agent's intentions rather than according to a set of arbitrary rules. Piaget has even suggested that the process of attaining the subjective moral viewpoint could be speeded by placing children in communal situations like nursery schools or kibbutzim at an earlier age than is now customary (Hall, 1970).



When children make moral judgments on a subjective basis, according to Piaget, they are no longer liable to the objectivity which characterized their earlier judgments. The present study, however, has demonstrated that objective moral judgments can be elicited from subjective children who are exposed to an adult model who makes judgments on an objective basis.

There are some possible explanations for this apparent violation of Piaget's cognitive development theory of moral judgment. It has been argued by Turiel (1966), in discussing similar results reported by Bandura and McDonald (1963), that only superficial verbal responses were affected by the training through model exposure and that the underlying cognitive structures which are basic to Piaget's theory were not really affected. Turiel based his argument primarily on the fact that the posttest in the Bandura and McDonald study followed immediately after the experimental training procedure. Since that argument was proposed, however, Cowan et al. (1969) and the present investigation have shown relatively long-lasting effects of the modeling procedure upon the moral judgments of subjective children.

Another explanation for the present findings may be found in the argument by Cowan et al. that their results

did not vitiate the Piagetian stage theory because the experimental task itself was not an appropriate measure of children's moral judgments. They suggested that the restrictions of their experimental procedure prevented them from adequately testing Piaget's theory by incorporating his own clinical interview technique. The present investigation included an experimental procedure similar to that used by Cowan et al. Bandura (1969b) has pointed out, however, that the interview technique employed by Piaget actually included a form of symbolic modeling as a means of testing the firmness with which a moral attitude was held by a child. For example, Piaget often suggested to children he interviewed that other children would feel differently about the story he told them, and asked how they could justify their responses in light of that knowledge. Such a technique constitutes symbolic modeling and is thus somewhat comparable to the experimental procedure in the Cowan et al. study and in the present investigation.

It would appear that a strict interpretation of Piaget's cognitive development theory of moral judgment does not apply to the results of the present study because of the demonstration that subjective children can be influenced by adult models to alter their moral judgments

toward objectivity and that this modification persists after a period of three weeks even though the model is no longer present. Bandura's social learning theory is a good alternate explanation for the present demonstration that children who were of a mature moral attitude could be influenced by a model to make immature moral judgments. Bandura's theory holds that simply observing a model who consistently advocates a particular point of view is often sufficient to bring about a change in the observer's attitude (Baldwin, 1967).

Inspection of Figure 2 suggests that objective subjects in the present study may have been influenced toward subjectivity to a greater extent than subjective subjects were influenced toward objectivity. This observation can be accounted for in Bandura's social learning theory by noting the probability that children of a subjective moral orientation have a different history of reinforcement than children of an objective moral orientation. In a recent article Bandura (1969b) has suggested that an important factor in a child's switch from an objective to a subjective moral orientation is the social reward he obtains from his parents for doing so. Bandura theorized that when parents feel a child is capable of taking into account the

intentions of someone who does something wrong, they begin to reward the child whenever he does and the child thereby learns a new mode of thinking. Such children would have a much different reinforcement history than children who continued to make objective moral judgments and had seldom or never been rewarded for making subjective judgments. The objective and subjective subjects in the present study may have had very different reinforcement histories, and this may account for the result that objective subjects were more influenced toward subjectivity than subjective subjects were influenced toward objectivity. If the subjective subjects had a history of being rewarded for subjective moral judgments, that history would work against their being influenced by a model who advocated the objective point of view. The objective subjects, on the other hand, may not have a history of strong reinforcement for the objective viewpoint (since adults do judge acts in terms of intentionality) and this may account in part for the fact that they were more easily influenced by the model.

### The Effects of Different Treatments Upon Children's Moral Judgments

The present study incorporated three influencing

techniques in four experimental treatments. In all treatments, an adult female model made moral judgments in a manner contrary to that of the subject, as determined by the pretest. Experimenter approval and explanations by the model were used in some of the treatments.

For objective subjects as well as subjective subjects, comparisons of the four treatments used in the present study revealed no differences among the treatments at any phase of the experiment. No one treatment influenced children to alter their moral orientations more than any other treatment. Apparently all four treatments resulted in a similar degree of change in the subjects' moral judgments. Thus the hypothesis that the treatments would produce different amounts of change in the moral judgments of the children was rejected. Even when the effects of the treatments were combined so that those treatments which included the experimenter's approval of the model's responses could be compared with those treatments which did not, no differences were found at any phase of the experiment. This is consistent with the findings of Bandura and McDonald (1963), who reported that approval alone produced no changes in the subjects' responses. Dworkin (1968) also found that approval by the experimenter

resulted in little change in his subjects' moral orientations. It may be that children will alter their moral judgments if they are rewarded for doing so, but approval by the experimenter is apparently not the sort of reinforcement which will bring about such a change. More tangible rewards or approval by an important adult such as a teacher or parent might result in a significant change in children's moral judgments.

Differences among the treatments were found when they were compared on the basis of whether or not they included explanations by the model. When all four treatments were compared individually with one another these differences were obscured. But for the objective subjects, the treatments which included the model's explanations resulted in a greater number of subjective moral judgments at the post-test phase of the experiment than those treatments which did not include such explanations. For subjective subjects, however, there was no difference at any phase of the experiment between the treatments which included explanations and the treatments which did not.

Children who were subjective at the beginning of the experiment, then, were not swayed from that point of view either by rewards or by logic. This fits in with Piaget's

theory which holds that children who have attained a mature, subjective, moral point of view recognize the logic of that view and will not be persuaded from it. Taken as a whole, however, subjective children did significantly change their moral judgments as the experiment progressed through its three phases. This change was not due to any single kind of treatment. Nor was it due to the fact that the experimenter sometimes approved the model's responses. Whether the model explained her responses was not a factor. Apparently the simple fact of being exposed to an adult model who made objective, or immature, moral judgments was sufficient to bring about a significant change toward objectivity in the moral judgments of subjective children.

The results reported for the subjective children were probably due to what Bandura (1969a) has referred to as the response facilitation effect of observing a model. That is, the general class of objective judgments was made more likely to occur by presenting an adult model who made such judgments. In this case, no new learning took place, since all children who reached a subjective moral point of view are presumed to have already passed through the objective stage of moral reasoning. The children learned

that the experimental situation was an appropriate place to make moral judgments of an immature nature. Turiel (1966) has argued that the essential cognitive structures which facilitate mature, or subjective, moral judgments are not really affected by the influencing techniques used in the present experiment. This contention has received support from the demonstration that the model's explanations, which were directed at the subjects' logical thinking, did not result in an increased number of objective judgments among subjective subjects. Although the subjective subjects were influenced by the model to make objective judgments, her explanations for doing so were not convincing.

Subjects who began the experiment with an objective moral orientation also altered their responses to a significant degree as the experiment proceeded through its three phases. They began the experiment making almost entirely objective moral judgments, but produced more and more subjective judgments during the experimental and posttest phases. As in the case of the subjective subjects, it made no difference whether the model's responses were approved by the experimenter. The same amount of change in the subjects' responses occurred regardless of



the experimenter's approval or lack of it.

In contrast to the results obtained with the subjective subjects, however, the degree to which objective children changed their responses toward subjectivity did depend upon whether the model gave explanations for her responses. In the posttest phase of the experiment, objective children who had heard the model explain her responses produced a significantly greater number of subjective responses than objective children who did not hear such explanation. For subjects who began the experiment with a subjective moral orientation, however, it made no difference whether the model explained her responses.

The simple modeling effect which was found to operate in the case of the subjective subjects was also present as far as the objective subjects were concerned. This can be seen by the fact that objective children produced a greater number of subjective responses in each succeeding phase of the experiment, at all times irrespective of the experimenter's approval, and in the experimental phase irrespective of the model's explanations. The children learned to make a new kind of judgment simply by being exposed to a model who did so. But the modeling effect was not the only significant variable which operated in the case of

objective subjects. The model's explanations resulted in an even greater number of subjective responses in the posttest phase of the experiment.

It is likely that the model's explanations presented the objective children with information which allowed them to adopt the subjective point of view. In this context it is apparent that Piaget was correct in his observation that by purely cognitive or rational means it is possible to teach formerly objective children the concept of subjectivity but that it is not possible to reverse a child's judgment from the objective to the subjective frame of reference. That is, logical explanations only work if they are oriented toward increasingly mature judgments, but not if they are aimed at influencing children to make less mature moral judgments.

The modeling effect has been shown in the present study to be a powerful one for altering the moral judgments of both objective and subjective children. This supports Bandura's social learning theory of the means by which children learn to make such judgments. In addition, Piaget's observation that the judgments of subjective children cannot be influenced toward objectivity by the use of logical persuasion was also confirmed.

### The Sex of the Subjects as a Variable in Children's Moral Judgments

The results of the present experiment showed the sex of the children did not influence their susceptibility to the influence of a female model who advocated alternative moral points of view. Boys and girls proved to be equally susceptible to the various treatments used in the present study.

### Implications for Influencing Children's Moral Judgments

Dworkin's conclusion that a training technique which stresses the communication of cognitive information by a model promotes effective and long lasting learning (Dworkin, 1968, p. 89) has been supported by the results of the present study. This is true only in the case of children who have not yet obtained the subjective viewpoint in moral reasoning, however.

It is unlikely that in any real life setting an attempt would be made to influence subjective children to respond in an objective fashion. Such an attempt would be contrary to the direction of accepted socialization. In order to test the implications of the cognitive development and social learning theories of moral development, however, the present investigation did include an attempt

to influence subjective children toward objectivity. It was felt that such an attempt did not pose any long-term threat to the normal socialization of the children involved because their exposure to the experimental manipulation was very slight compared with the influences of parents, teachers, and many peers toward subjectivity to which they were exposed daily. To insure that the effects of the experiment did not continue beyond the posttest, all subjects were debriefed at the conclusion of the experiment.

While it is unlikely for subjective children to be trained toward objectivity, the opposite approach of training objective children toward subjectivity is a common goal of the American socialization agencies of home, school, and church. The influencing technique in the present investigation which incorporated the model's explanations was similar to the "inductive" parental disciplining procedure described by Hoffman and Saltztein (1967). These investigators found that seventh grade children developed mature moral attitudes, as revealed in Piaget-type moral judgment stories, most rapidly when their parents employed the tactic of disciplining their children inductively. That is, these parents pointed out to their children the negative or even painful consequences

of the children's misdeeds for the parents or for others. Other disciplinary measures such as withdrawal of love, physical punishment, or material deprivation did not result in as rapid adoption of a subjective moral attitude. In fact, the least effective method of instilling subjectivity in children was the use of physical punishment.

### The Relationship Between Moral Judgment and Moral Behavior

The present study has focused on children's moral judgments. It is not to be construed from the results that moral behavior necessarily stems from subjectivity in moral attitude. Rather, mature moral attitude as defined by the experimental task refers primarily to maturity in a form of logical thinking.

Hartshorne and May (1928), Havighurst and Taba (1949), Hoffman (1963), and many others have demonstrated that children who are able to make mature moral decisions are nonetheless susceptible to temptation or can react more out of passion than logical thinking. Apparently the judgment of external, fairly abstract situations is quite different from reacting personally in a similar situation.

The results of the present study have shown that models can be used to influence children's moral judgments, particularly if the modeling situation includes cognitive

information in the form of the model's explanations for her responses. A relevant area for future research might be the application of such influencing techniques to actual behavior in moral situations. Grinder (1962), for example, has shown that observation of models can influence a child's resistance to temptation. The addition of other techniques to a paradigm like his might suggest some effective ways of training mature moral behavior.

## Chapter V

### Summary

Three influencing techniques were used to elicit objective, or immature, moral judgments from children who were shown to be subjective, or mature, on a pretest. The same techniques were used to elicit subjective moral judgments from objective children. The techniques were modeling, experimenter approval of the model's responses, and explanations of her responses by the model. The techniques were incorporated into four treatments which included modeling alone, modeling plus approval, modeling plus explanations, and modeling plus approval plus explanations.

Ten moral judgment stories of the kind originated by Piaget were read to 168 elementary school children to determine their moral orientations. Each story described a well intentioned or accidental act which resulted in a great deal of material damage, contrasted with a selfishly motivated act which resulted in very little damage. One hundred boys and girls, aged 6-4 to 10-2, were selected as subjects. Half the children were decidedly objective in their responses to the pretest, and half were decidedly subjective. The subjects were randomly assigned to one of the four treatment groups or to a control group.

During the experimental phase of the study the experimenter read moral judgment stories alternately to an adult female model and the individual subjects. The model responded in a fashion opposite that of the subject's orientation as measured by the pretest. In some cases her responses were approved by the experimenter. In some cases she explained the rationale for her responses. Subjects in the control group heard the same stories but were not exposed to a model, experimenter approval, or explanations of any sort. Three weeks after the experimental phase all subjects were asked to respond to another set of moral judgment stories as a posttest. Twenty additional subjects who were selected at random from the original population as an additional control group also responded to the posttest.

The results showed that objective and subjective subjects were significantly influenced by modeling to adopt the alternate moral viewpoint. Objective children were more influenced toward subjectivity than subjective children were influenced toward objectivity. The most effective influencing technique was modeling alone. At no time did the experimenter's approval increase the degree to which the subjects were influenced to change. When the



model explained her responses, objective children adopted the subjective orientation more readily than when she did not. For subjective children, however, the model's explanations did not result in a greater number of objective responses. The sex of the subjects was found to be of no consequence in terms of their susceptibility to the influencing techniques.

The results were discussed in terms of their relevance to Bandura's social learning theory and Piaget's cognitive development theory. The powerful modeling effect was interpreted as lending support to Bandura's interpretation of moral development. Piaget's theory was supported by the demonstration that the model's explanations were effective only in influencing children in the direction of increasing subjectivity. Further research was suggested to clarify the relationship of moral judgment to moral behavior.

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## APPENDIX A

### Stories Used in the Pretest Phase

#### Story 1:

One day Jane took her mother's scissors when her mother was out. She played with them for awhile on her bed. But Jane didn't know how to use the scissors very well and she cut a little hole in the blanket.

Mary wanted to make her mother a nice surprise picture. Mary was cutting a picture on her bed. But Mary didn't know how to use the scissors very well and she cut a big hole in the blanket.

#### Story 2:

One day Oscar's father was pulling weeds from the flower garden. Oscar liked to help his father so Oscar asked if he could pull some weeds too. His father was very happy that Oscar wanted to help him. Oscar worked real hard. But Oscar didn't know what the flower plants looked like and he pulled out almost all of the flower plants as well as the weeds.

Bill went over to his friend's house and asked him if he could borrow his football for a little while. His friend said no, he didn't lend his football to anybody. So Bill walked away. As Bill passed a flower that his friend was growing in a flowerpot, Bill pulled a leaf off the flower.



Story 3:

Denny and his friends had just eaten lunch. They went for a walk and passed by some apple trees that belonged to a man that Denny didn't like. Denny climbed over the fence and took one apple.

Jimmy and his friends went on a hike one day. Jimmy came from a poor home and he did not have very much food for breakfast that morning. On the hike they passed by some apple trees. Jimmy climbed over the fence and picked ten apples off a tree. He ate some and took some home for his brothers and sisters.

Story 4:

Jane came in from playing outside. She felt real tired so her mother told her to take a rest. Jane didn't know that her mother left her hat on the sofa. Jane walked over to the sofa and plopped down. When Jane laid down she squashed her mother's hat all out of shape.

One day Doris' mother and father went visiting and Doris was alone at home. She wanted to see the things in the top of her parents' closet. Doris knew her parents would not be home till suppertime. So Doris climbed up on a chair, but as she was reaching for the things in the closet the mother's hat box fell down and the hat got bent a little bit.

Story 5:

Chuck didn't care much for fingerpainting. When the class was fingerpainting one afternoon Chuck didn't do much fingerpainting. Chuck just played with the paint and dribbled a little on his desk.

One day the teacher asked "Who would like to help clean up the paints?" Len said "I will, Miss Brown." Len wanted to help so much that he tried to carry six paint jars to the sink. But they slipped out of his hands and paint spilled all over the floor.

Story 6:

Barbara decided that she would clean up her room and put her toys away so that her mother would not have so much work to do. Barbara put her big doll in the toybox and then she put the wooden blocks in too. Barbara did not think that the blocks would hurt the doll. But when Barbara put the blocks in the toybox they fell on the pretty doll and broke it all to pieces.

Amy wanted to watch television but her mother said that it was time to clean up and go to bed. Amy didn't like that because she could not watch her favorite program. When her mother left the room Amy picked up a doll and threw it on the floor. When the doll hit the floor, one of the doll's fingers broke off.

Story 7:

Erma's sister was looking at pictures in a magazine. Erma wanted to look at the magazine too. So Erma waited for a while and then told her sister that she wanted it now. Her sister said that she wasn't finished looking at it yet. Erma tried to take the magazine from her sister and as she did one of the pages tore.

One day Hazel decided to make a pretty picture for her sister. Hazel went to the living room and picked out a magazine and cut out all the colored pictures. Hazel did not know that the magazine that she had cut to pieces was a new magazine that someone had put on the pile of old magazines by mistake. So Hazel's mommy and daddy had no new magazine to read all that week.

Story 8:

Gary and his friends were building a boat out of wood. Gary cut the pieces of wood and the other boys put the pieces together. They were just about finished building when the other boys had to go home. Gary said, "I'll finish the boat so we can play with it when you come back." Gary was busy cutting the last piece but he didn't know that the boat was under the board and he cut the boat to pieces.

Once some boys were building an airplane on the school

grounds. They were almost finished putting the airplane together when the schoolbell rang and they had to go back in the classroom. Roger was the last boy to go back in. As Roger ran past the airplane he noticed that no one was watching so he decided to fly it. Roger tossed it in the air but when it landed the tip of the tail broke off.

Story 9:

One day when Peter's father had gone to work Peter thought it would be fun to play with his father's fountain pen. First Peter played with the pen and then he made a little blot on the tablecloth.

One day when John's father was away Johnny noticed that his father's fountain pen was empty. Johnny thought he would help his father by filling the pen with ink so that the pen would be ready when his father needed it. But while Johnny was opening the ink bottle, he made a big blot on the tablecloth.

Story 10:

One afternoon Jill decided to take a walk to the playground. Her mother thought that it might rain and she called after Jill to take her raincoat. But Jill didn't hear her mother. It did rain and Jill's new dress got so wet that it shrank and she couldn't wear it any more. One day Alice was going out to play. Her mother told her

to take an umbrella because it might start to rain. But Alice didn't want to carry the umbrella so she left it at home. It did rain and Alice's dress got a little wet and had to be cleaned.

## APPENDIX B

### Stories Used For The Children

#### In the Experimental Phase

##### Story 1:

One day Floyd's father was painting the fence. Floyd asked his father if he could help. His father said sure. So Floyd got a brush and started painting. After Floyd painted for a while he stepped back to see how it looked. But Floyd forgot that the paint can was right behind him. His foot knocked over the paint can and all the paint spilled on the ground.

Paul came out to watch his father paint the barbecue table. His father told Paul not to bother him. Paul didn't like that. So when his father went to the garage to get the brushes, Paul took the paint stick and dribbled a little paint on the ground.

##### Story 2:

Joyce was playing with her younger sister one day. Soon Joyce got tired of playing but her younger sister wanted to keep on playing. So Joyce hid her little sister's doll so that they'd have to stop playing.

Sally was trying to teach her little brother a game. They were having lots of fun throwing a ball around. But once Sally threw the ball too far and a car ran over it and smashed the ball to pieces.

Story 3:

Mark was hurrying to get to school one day so he wouldn't be late. Mark ran so fast that he dropped his schoolbooks in a mudpuddle and they got full of mud.

Jimmy's mother just finished reading him a story and then it was time to go to bed. Jimmy didn't want to go to bed so he spilled milk on one of the pages of the book.

Story 4:

Kate was getting tired of waiting while her mother was shopping. So Kate ran up and down the aisles in the grocery store. The clerk told Kate to slow down and be more careful. But Kate was having a good time and she didn't pay any attention. She started to run again when he wasn't looking. As Kate turned the corner her hand hit a box of kleenex and it fell on the floor.

Pam went grocery shopping with her mother one day. They were almost finished shopping when her mother remembered that she needed a bottle of ketchup which was at the back of the store. Pam said, "I'll get it for you, mother." As Pam was taking the bottle off the shelf, she didn't lift the bottle high enough. Three bottles fell off the shelf and broke and the ketchup spilled all over the floor.

Story 5:

Fred was playing football one day. His team was losing

the game. If Fred could score then his team would win the game. Fred tried real hard to score, and he was running real fast. But he bumped into Tommy, a player on the other team, and he broke Tommy's nose.

Jimmy wanted to play football with some of the bigger boys but they said he was too small and he might get hurt.

Jimmy didn't like that, so he stuck his foot out and one of the boys who was running with the ball fell over Jimmy's foot, and got a tiny scratch.

#### Story 6:

Hazel's older sister was putting a puzzle together, and Hazel wanted to work on it too. But her older sister wouldn't let her and said to Hazel, "No, it's my puzzle, not yours." So Hazel watched her sister for a while. When her sister bent down to pick up a piece that fell on the floor, Hazel took one piece from the puzzle and hid it in her pocket.

Barbara was cleaning up her sister's room. Her sister had finished part of a puzzle and had put the rest of the pieces in an old paper bag on the floor. Barbara thought that the bag was empty so she picked it up and threw it in the garbage. When Barbara's sister came to finish the puzzle she couldn't do it because most of the pieces were gone.



Story 7:

David's mother said that he was old enough to pour his own milk at the dinner table. One day at dinner David was pouring himself a glass of milk. But the milkbottle slipped from his hands and there was milk and broken glass all over the table.

One day at breakfast Billy finished drinking his orange juice before his brother. Billy decided to take a drink of his brother's glass when his brother wasn't looking. But when he did a little orange juice spilled on the table.

Story 8:

Sharon's mother was making dinner one day. While her mother was getting the meat ready for the oven, Sharon decided to turn the dial on the oven lower than it was supposed to be. So the family had to wait an extra half hour for dinner that night.

One day Margaret was helping her mother make dinner. Her mother asked Margaret to turn the oven dial to 300 degrees. But Margaret turned it to 400 degrees by mistake. When it was time to be done the whole dinner was ruined.

Story 9:

Joe and his father went to the shopping center in their car. As they were getting out of the car, his father asked Joe to lock the car door. But Joe didn't hear his

father , and so he just closed the door without locking it. While they were in the store, somebody took a very expensive camera out of the car.

Bill was playing on the front lawn. His father called Bill for supper, and told Bill to bring his baseball in with him. But Bill wanted to play with his ball after supper, and so he just left the ball on the front lawn. While Bill was eating supper, somebody came along and took the ball.

#### Story 10:

Norma was looking at the pictures that the family took while they were on their vacation. While Norma was looking at the pictures she noticed that her brother was in most of the pictures. So when Norma came to another picture with her brother in it, she got a crayon and made a little mark on the picture.

Alice and her sister were looking at the pictures of the family. They were laughing at some of the pictures taken of them when they were little. As Alice started to point to one of these pictures, her hand bumped into a glass of milk. The milk spilled on the album and ruined about 20 pictures.

## APPENDIX C

### Stories and Answers Used For the Model

#### In the Experimental Phase

##### Story 1:

Tony's friend was building a tower with blocks. Tony liked to help, and so when he saw his friend building the tower, Tony helped his friend by bringing the blocks to him. But as Tony got up, he tripped and fell against the tower, and the whole tower crashed down.

Harry asked one of the boys to play store with him. But the boy said, "No, I'm going to build a tower out of blocks." When the boy wasn't looking, Harry walked over and knocked one block off the tower.

Subjective Response: "Well, Tony was trying to help his friend and he didn't mean to knock the tower down -- it was just an accident. But Harry knocked the block off on purpose -- he really meant to do it."

Objective Response: "Harry only knocked one little block off a whole tower, but Tony knocked the whole tower down. So I think Tony is naughtier because he knocked all the blocks down and Harry only knocked one down."

##### Story 2:

Mabel was helping her mother vacuum the playroom. As Mabel was pushing the vacuum back and forth, the vacuum bumped against the leg of a table. A bunch of records

fell off the table and 10 of them broke.

Rose's older sister played her record player a lot. One day Rose's sister kept playing the same record over and over again. Rose got tired of hearing this record. So Rose took the record and hid it for a couple of days so her sister couldn't play the record.

Subjective Response: "Mabel didn't really mean to break the records -- it was just an accident. But Rose hid the record on purpose, so I think she was the naughtier one."

Objective Response: "Mabel broke 10 records, but Rose only hid one. So Mabel was naughtier, because she broke records and Rose didn't break any."

### Story 3:

One day Sam's friend threw a bag of water at him. That afternoon Sam saw his friend coming home from school. Sam hid behind a fence and as the boy passed by, Sam squirted him in the leg with a water pistol.

One afternoon Jack was watering the lawn for his father. One of his friends was passing by on the street and called out to Jack. While Jack was looking at his friend, the hose squirted water all over the seats of a neighbor's car.

Subjective Response: "Well, Jack was helping his father water the lawn and he didn't mean to squirt water on the neighbor's car. But Sam squirted the boy on purpose -- he

really meant to do it."

Objective Response: "Sam just got his friend a little bit wet, but Jack got water all over the seats of somebody's else's car. Jack did more damage, so he was naughtier."

Story 4:

One morning Alice came in from the yard and found that her mother was not back from the store yet. Alice thought she would get some ice cream for herself. So she got a little cup from the cupboard. As Alice was going to the refrigerator, the cup dropped and broke.

Kathie's mother was late coming home from shopping. Kathie thought she would like to help her mother so she began to set the table for supper. As Kathie was carrying the dishes to the table, three large dishes slipped out of her hands and broke.

Subjective Response: "Alice didn't have permission to get the ice cream. Kathie was trying to do something nice for her mother. She didn't mean to break the dishes -- it was just an accident."

Objective Response: "Alice only broke one cup, but Kathie broke three big dishes. Kathie broke more than Alice did, and that's a naughtier thing."

Story 5:

Two first grade classes were playing a game to see which

class could kick the ball the farthest. All the children had had a turn except for Ross. So far his class was losing. But if Ross could kick the ball real far then his class would win. Ross took careful aim and kicked the ball with all his might. The ball went sailing across the playground and smacked into a window and smashed it to pieces.

Harvey and his class were playing kickball when the school-bell rang. The teacher said, "Recess is over, let's go back to the classroom." Harvey didn't have a turn at kicking the ball. So when the teacher was lining up the children, Harvey kicked the ball to the other corner of the playground and someone else had to go and get it.

Subjective Response: "Ross was just trying to win the game, he didn't mean to break the window -- it was just an accident. But Harvey kicked the ball on purpose just because he didn't have a turn."

Objective Response: "Ross broke a window, and Harvey didn't break anything. Harvey just kicked the ball a little ways, but Ross broke a window."

#### Story 6:

Lynn asked her teacher if she could take three reading books home. The teacher said yes she could. That day it was raining so Lynn's mother drove her home from school.

As Lynn was getting out of the car, the three reading books fell out of her hands and dropped in a mudpuddle and got all full of mud.

Diana and her older sister were watching T.V. But the older sister wanted to watch another program. The older sister just turned the T.V. to a different station. Diana said, "O.K. I'm not going to watch T.V. with you." So while her older sister was watching T.V. Diana went and made a small mark with a crayon in her sister's old coloring book.

Subjective Response: "Lynn didn't mean to get her book full of mud -- it was just an accident. But Diana went and made a mark in her sister's old coloring book just because her sister wanted to watch a different T.V. program. She did that on purpose."

Objective Response: "Diana just made one little mark, and it was in an old book anyway. But Lynn got mud all over three books from the school, and that was a naughty thing to do."

#### Story 7:

John was sitting at the supper table and he had eaten all his food except for his potatoes. John told his mother that he did not want to eat his potatoes. His mother said that John had to eat his potatoes or he would not get any

dessert. When his mother and father were busy talking and not looking, John pushed his plate and it knocked over the salt shaker and a little salt spilt on the table.

Peter and his parents were sitting down having supper. The mother needed some sugar which was next to Peter's plate.

Peter told his mother that he would pass the sugar to her.

As Peter reached for the sugar bowl, his hand hit a bottle of milk and the milk spilt all over the table.

Subjective Response: "Well Peter was just trying to pass his mother the sugar and he didn't mean to spill the milk -- it was just an accident. But John pushed his plate on purpose just because he had to eat his potatoes."

Objective Response: "Well John only spilled some salt, and that can be cleaned up very easily. But Peter spilled milk all over the table and made a big mess. He was naughtier because he spilled more."

#### Story 8:

Leslie's mommy just finished baking a cake for dessert one night. But Leslie was very hungry and she didn't want to wait until after dinner. So when her mommy went into the living room, Leslie licked a little frosting from the cake. Joy asked if she could help her mommy with the baking one day. Her mother said that would be O.K. So Joy and her mommy worked all day baking a cake. Joy was carrying the



cake over to the table but she slipped on the floor. The cake fell to the floor and the family had no dessert that night.

Subjective Response: "Joy was helping her mommy and she accidentally dropped the cake. She didn't mean to do it. But Leslie didn't ask if she could lick the frosting and she did it on purpose."

Objective Response: "Leslie only licked a little bit of frosting off the cake, but Joy ruined the cake so nobody could have any dessert. Leslie didn't do very much, but Joy dropped a whole cake, and that's naughtier."

#### Story 9:

One day when Fred came back from school he noticed that a large board on the fence was loose. He decided to hammer the board back to the fence before his dog saw the hole. So he got some nails but they were too big. As Fred was hammering in the nails they split the board to pieces. The next day Fred's father had to buy a large board and had to spend Saturday morning fixing the fence.

Irving and his friends found an old piece of lumber that Irving's father had thrown away. So they decided to build a small box with it. Irving wanted to saw the pieces but his friends didn't want him to. Irving didn't like that so he pushed the board. It fell on the ground and a little

piece broke off the end of the board.

Subjective Response: "Fred was just trying to help and he didn't mean to split the board -- it was just an accident. But Irving pushed the board on purpose. He really meant to do that just 'cause the boys didn't want him to saw."

Objective Response: "Fred broke a board and his father had to spend a whole Saturday morning fixing a new one. But Irving just broke a small piece off the end of an old board which had been thrown away. So Fred did more damage."

#### Story 10:

Mary thought it would be nice to clean her father's glasses before he came home from work. But while Mary was cleaning them, they slipped from her hands and broke into a hundred pieces.

Barbara wanted to play with her mommy's jewelry one day. So she went into her mommy's bedroom and started to play. But while Barbara was playing a small earring broke and her mommy had to take it to the store to be fixed.

Subjective Response: "Mary was trying to do something nice for her father -- she accidentally dropped the glasses. She didn't mean to break them. But Barbara was playing with her mommy's jewelry without permission."

Objective Response: "Barbara just broke a small earring

that could be fixed. But Mary broke her father's glasses, and those can't be fixed. Her father had to get new glasses. Mary was naughtier because she broke something more important."

## APPENDIX D

### Stories Used in the Posttest Phase

#### Story 1:

John was in his room when his mother called him down to dinner. John went down and opened the door to the dining room. But behind the door was a chair and on the chair was a tray with 15 cups on it. John did not know that the cups were behind the door. John opened the door, the door hit the tray, bang went the 15 cups, and they all got broken.

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

#### Story 2:

The teacher told the children to work at their desks while she went to the principal's office. While the teacher was out Jenny got up and went to the board. While Jenny was writing on the board she broke a piece of chalk.

Susie had finished her work in class one day. The teacher had asked the children to take care of the flowers. Susie noticed that no one took care of the flowers that day. She went to the sink and got a pitcher of water. As Susie was pouring the water into the flower vase the water poured

out too fast and knocked the vase over. It fell to the floor and smashed to pieces.

### Story 3:

Ned and his friends were building a treehouse. The boys were passing the boards to Ned who was up in the treehouse. Ned had helped a lot and they were almost finished. A boy handed Ned a big board for the roof. But when Ned was lifting the board it dropped out of his hand and fell against the side of the treehouse, and the whole treehouse crashed to the ground.

Once some boys were building a treehouse but they wouldn't let Jim help. They were planning to finish it after lunch. Jim walked by the treehouse when the boys were away to lunch. Jim climbed up in the treehouse and looked around. He noticed that no one was there so he knocked off a small board from the side of the treehouse.

### Story 4:

Barbara wanted to buy some candy but she didn't have any money. So Barbara took a penny from the kitchen drawer and went to the store to buy herself a little piece of candy.

Kathie's mother asked her to go to the store and get some groceries. She gave Kathie a whole dollar to get the groceries with. But on the way to the store the dollar

fell through a hole in Kathie's pocket and got lost.

Story 5:

Randy went to the school library to get a book for his teacher. When Randy opened the door to the library a girl was passing by with jars of fingerpaint. Randy did not know that the girl was behind the door. The door hit her arm, the jars fell out of her hands, and the fingerpaint spilled all over the floor.

Clark was tickling one of the boys during their reading lesson. The boy turned around and Clark jerked his hand back. Clark's elbow hit a small jar of water. It tipped over and a little water spilled on the desk.

Story 6:

Margaret came home from school one day and saw her little sister eating a cookie. Margaret asked if she could have a bite. But her little sister said no. So Margaret went into her little sister's room and took a piece of candy from her drawer.

Susie came home from school one day and found that her little sister had spilled cookie crumbs all over the living room floor. Susie decided to clean them up with a vacuum cleaner. But while Susie was cleaning up, the vacuum cleaner bumped into a lamp. The lamp fell to the floor and smashed to pieces.

Story 7:

Ed didn't know the names of the streets very well, and he was not sure where Main Street was. One day a man came up to Ed and asked him where Main Street was. So Ed said, "I think it's that way." But it was not that way. The man really got lost and could not find the place he was looking for.

Joe knew the names of the streets very well. One day a man came up to Joe and asked him where Main Street was. But Joe wanted to play a little trick on the man 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.

Story 8:

Mary's mommy had just finished baking some cookies for dessert one night. But Mary was very hungry and she didn't want to wait until after dinner. So when her mommy went into the living room Mary ate one cookie.

Alice and her parents went to the circus one day. Alice asked her mommy if she could get some chocolate candy. Her mother said O.K. Alice was having such a good time watching the circus that she forgot she was holding the candy. It melted on her new party dress and made a big stain.

Story 9:

One day Billy asked his friend if he could borrow his

bicycle for a little while. His friend said that would be O.K. But while Billy was riding his friend's bike, he hit a bump in the road and the front wheel of the bike got all smashed and bent.

Jimmy was watching some boys play ball one day. Jimmy asked if he could play too but the boys said no. So the next time the ball came close to him, Jimmy picked it up and threw it to the other side of the playground and one of the boys had to go and get it.

Story 10:

Martha was playing a game of hopscotch with her friend one day. Martha was winning the game. But her friend made a real good jump at the end and so Martha lost the game. Martha didn't like that so she just stopped playing and went home.

Jane was teaching her friends how to play a new game one day. They were having a lot of fun throwing her friend's new ball around. But once Jane threw the ball too far and a car ran over it and smashed the ball to pieces and they had to stop playing the game.



Approval Sheet

The dissertation submitted by David A. Utech has been read and approved by members of the Department of Psychology.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

12/15/70

Date

William A. Henry  
Signature of Adviser