

Development of Children's
Evaluative Judgments

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In recent years, considerable theoretical and empirical work has been generated within the broad framework of attribution theory (Heider, 1958; Jones, Kanouse, Kelley, Nisbett, Valins, & Weiner, 1972; Kelley, 1967, 1971(a), 1972, 1973; and Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1971). A sizeable portion of this literature has dealt either directly or indirectly with the attribution of causal responsibility. Paralleling this interest in the problem of attribution of responsibility, there has been a growing concern with the determinants of moral judgments and evaluation. This paper documents theoretical reasons for suggesting the link between attribution of causation and moral evaluation and presents data to support this suggestion.

Several attributional theories have posited a link between attribution of responsibility and moral evaluations (Heider, 1958; Kelley, 1971; and Weiner & Peter, 1973). They suggest that evaluations of the actions of others depend on the observer's attribution regarding the actor's causal responsibility for the consequences of his actions. Further, they suggest that information regarding an actor's outcome and her intentions influence observers' attributions of causal responsibility and, consequently, the observers' evaluations of the actor (Frieze & Weiner, 1971; Heider, 1958; Kelley, 1967, 1971(a), (b), 1973; Lanzetta & Hannah, 1969; Weiner & Kukla, 1970; Weiner et al., 1971). For example, Frieze and Weiner (1971) found that extreme outcomes are more likely to be attributed to the actor than are moderate outcomes. Similarly, Weiner et al. (1971) reported that subjects reward actors with positive intentions or efforts more than they reward actors with negative intentions or lack of effort.

The use of outcome and intent information varies as a function of a number of other factors (Armsby, 1971; Hebble, 1971; Heider, 1958; Kohlberg, 1969; Piaget, 1965; Shaver, 1970; Walster, 1966; Weiner and Peter, 1973). Weiner and

Peter (1973) suggested two specific factors that influence the use of intent and outcome cues: motive system and age. Weiner and Peter compared the development of children's evaluative judgments in moral and achievement contexts. To compare the development of evaluative judgments in the two motive systems, Weiner and Peter had children judge eight variations of each of two story themes: one moral- and one achievement-related. The studies varied in the ability, effort, and outcome cues as well as the theme. That is, each story included either a high or low ability cue, a high or low effort cue, and a positive or negative outcome cue and represented either a moral or an achievement dilemma. The moral theme involved a young child seeking help from an older child. The older child either was able or unable to help (ability cue), either wanted or did not want to help (effort/intent cue), and the younger child either arrived or did not arrive home on time (outcome cue). The achievement theme involved a child working on a puzzle. The child was either good or poor at doing puzzles (ability cue), he either tried or did not try (effort/intent cue), and he either finished or did not finish the puzzle (outcome cue). The children were asked either to reward or punish the actor in each story with gold or red stars. Intentions and efforts became increasingly more important in both the achievement and moral situations from age four to twelve. In contrast, outcome became increasingly less important in the moral situation only. In the achievement situation, outcomes continued to be important evaluative cues. These results suggest that the older children weight the cues differently, depending on the situation being judged. If the situation is "moral," they focus on cues regarding the intentional nature of the behavior being judged. In contrast, if the situation is "achievement," they use the outcome cue as well as the intent cue. Based on these results, Weiner and Peter concluded,

"that achievement relatively is an outcome-oriented reward system while morality relatively is an intent-oriented punishment system." (p. 306).

While this conclusion may be an accurate description of the data, it is possible that these results are the consequence of the two particular stories chosen rather than of an inherent distinction between the two motive systems. In an attempt to maximize the distinction between the achievement and the moral stories, Weiner and Peter used stories that were most representative of each motive system: a moral story that was both noncompetitive and social (asking a child for help), and an achievement story that was both competitive and asocial (putting a puzzle together). Each of these stories typify their respective motive system. That is, the achievement motive is commonly assumed to be aroused in a competitive task that is often individual in nature; e.g., academic exams. Likewise, the moral motive is commonly assumed to be aroused in a social situation that is generally noncompetitive; e.g., helping someone in need. If one assumes that the process involved in making evaluative judgments differs depending on the motive system evoked by the situation being judged, then choosing stories which maximize the distinction seems appropriate.

But, if factors other than the motive system also effect evaluative judgments, then the result of choosing stories which differ on several dimensions may be to obscure the importance of these additional factors. The two stories chosen by Weiner and Peter differ not only in the motive system evoked by each situation, but also in whether the situation is competitive or noncompetitive and in whether the situation is social or asocial. Consequently, since the two stories differ not only in whether competition is present or not, but also in whether social interaction is present or absent, it is impossible to evaluate the

influence of either of these situational cues independent of the other and independent of the motive system associated with each story. Likewise, it is impossible to evaluate the influence of the motive system independent of either of these situational cues or even to determine if the motive system has any influence independent of these situational cues. It may be that the distinction between moral and achievement situations is unnecessary for an understanding of the process whereby evaluative judgments are made.

The Indistinct Distinction between Achievement and Moral Motive Systems

There are theoretical and empirical reasons to conclude that the distinction between a moral motive system and an achievement motive system is unclear at best and arbitrary at worst. Three of these reasons seem most important: the similarities in the nature of the evaluative task across the two systems, the similarities in the cues used for evaluation across the two systems, and the confusion and overlap of the two systems as discussed by other investigators.

Similarities in the evaluative tasks. Consider the task in the Weiner and Peter study. For both stories, the children were asked either to punish or to reward the child in the story. It is reasonable that an adult would perceive this as an attributional task and would assess the cause and effect relationships between the person, the situation, and the event. Furthermore, this assessment of causation should influence her response to the specific event. For example, consider this story used by Weiner and Peter: "A little girl comes up to Bob and asks Bob to help her get home. Bob knows the way. He wants to help. The little girl does not get home in time for dinner." In this case, it is obvious that Bob is not responsible for the negative outcome. Therefore, the evaluator should not punish Bob. The results confirm this suggestion.

The story designed to arouse the achievement motive system can be analyzed in a similar fashion. Consider this example. "Paul is good at working puzzles. He is not trying to do this puzzle. He does not get it put together." In this case, the puzzle will not be put together without any effort, thus it is reasonable to assume that Paul is responsible for the negative outcome. Therefore, an evaluator should punish Paul. Once again, the results confirm this suggestion.

In each of these stories, the subject was asked to reward or punish the actor. Each situation was structured allowing the subject to assess the actor's causal responsibility for the outcome. Assuming that the evaluator, in fact, made this assessment and based her evaluation on the assessment, it is likely that the evaluator perceived her task as similar regardless of the motive system being aroused. Therefore, the distinction between the motive systems may not have been salient to the subjects and, consequently, may not have been a major determinant of the differential evaluations reported by Weiner and Peter. Further, evaluations within either motive system are probably mediated by the subjects' perception of causation. In support of this suggestion, Shaw and Reitan (1969) found that assessment of causation is a necessary condition for evaluation. Similarly, Shaw and Sultzer (1964) presented evidence that attribution of responsibility is correlated significantly with assignment of sanction. While the correlations in both these studies were not perfect, the present study proceeds on the assumption that the principles affecting attribution of responsibility also affect evaluative judgments. Finally, Heider (1958), in a theoretical statement on attribution states that

Source attribution is so fundamental to the meaning of a harm or benefit, that we should like to explore it further . . .

Moreover, whether the source is ascribed to a person or

to an impersonal circumstance may be crucial in the reaction (p. 256).

Similarities in the cues used for evaluation. In addition to the similarities in the tasks used in achievement and moral studies, the cues on which evaluations are based are similar across the two motive systems. Specifically, several studies indicate that mature subjects' evaluative judgments are determined primarily by information which allows the subjects to form an appraisal of the actor's outcome and an inference regarding the actor's control over those outcomes either through his intentions or his efforts. For example, in Weiner and Kukla's (1970) investigation of the relationship between various informational cues and evaluative judgments for achievement stories the pupil's efforts and test results emerged as the two primary evaluative cues. The importance of effort and outcome as evaluative cues in achievement settings has been confirmed by several other investigators (Cook, 1970; Eswara, 1972; Lanzatta & Hannah, 1969; Leventhal & Michaels, 1971; Rest, Nierenberg, Weiner, & Heckhausen, 1973; and Weiner & Peter, 1973). Similarly, studies investigating the development of moral judgments have highlighted the importance of intention and outcome cues in evaluative judgments. (Armsby, 1971; Bandura & McDonald, 1963; Buchanan & Thompson, 1973; Costanzo, Coie, Grumet, & Farnill, 1973; Cowan, Langer, Haevenrich, & Nathanson, 1969; and Hebble, 1971, Piaget, 1965).

Overlap of the two motive systems suggested in the work of other investigators. Finally, the confusion and overlap of the two motive systems evident in the works of several investigators suggest that the conceptual distinction between these two systems is tenuous. For example, Leedham, Signori and Sampson, (1967) found subjects consider failure, lack of effort, and lack of ability to be immoral and

guilt arousal. Apparently, naive subjects have difficulty distinguishing between achievement and moral themes. Similarly, Piaget confounded moral and achievement themes in the stories he used to investigate the development of moral judgments. For example, he asked a child to choose the naughtier of two boys. One boy had broken 20 cups while trying to help his mother; the other boy had broken one cup while getting himself a cookie. The second situation could easily be characterized as an achievement rather than a moral situation in that the boy was exhibiting independent behavior which often is characterized as achievement-related.

In addition to the overlap in empirical studies, Kelley (1971), suggested that achievement evaluations are an integral part of all moral evaluations.

The moral evaluation process is, in part, based on the processes of reality evaluation and achievement evaluation. By this, I mean that judgments of right and wrong, good or bad (moral evaluations), derive their properties in part from the same processes as are involved in judgments of correct or incorrect (reality evaluations) and as are involved in judgments of personal success or failure (achievement evaluations) (Pg. 293).

Given the difficulty in distinguishing between purely moral situations and purely achievement situations, it may be more useful at this stage to ignore the distinction between the moral and achievement situations and to investigate the factors which influence evaluative judgments across the two motive systems. However, Weiner and Peter did find that evaluative judgments were dependent on the motive system being judged. How, then, are differences to be explained?

As noted earlier, the stories chosen as representative of each motive system

differed not only on their assigned motive system, but also on two situational cues: the presence or absence of competition and the presence or absence of social interaction. Given the arguments developed thus far, it is possible that these situational cues are responsible, in part, for the differences in the evaluative judgments reported by Weiner and Peter. But, due to the confounding of the situational cues with the motive systems within Weiner and Peter, it is impossible to assess the influence of these situational cues on the children's evaluative judgments. It is the purpose of this study to investigate the effects of these situational cues on the differential use of intention and outcome information in forming evaluative judgments.

The Influence of Situational Cues on Evaluative Judgments

Weiner and Peter found that situational cues do influence evaluative judgments. Research into the development of moral judgments also offers support for the notion that situational cues influence children's judgments. However, until recently, these effects have been treated largely as a source of error and, consequently, they have not been investigated systematically. For example, the stories used Piaget (1965) varied in the social nature of their situational context but he chose not to discuss the impact of these situational variations on his subjects' responses. Bandura and McDonald (1963) and Cowan et al. (1970), in contrast to Piaget, point out the specificity of responses in their study of the development of moral judgments but do not comment on the possible causes of this specificity. Two more recent studies (Hebble, 1972, and Buchanan & Thompson, 1973) have included situational variations as a factor. Both studies suggest significant situational effects. However, no attempt was made to interpret these effects. Thus, even within the situations commonly used to elicit moral judgments, situational variations apparently influence judgment patterns.

the use of outcome as an evaluative cue. He found that subjects' reward or punishment for various outcomes depends partially on the extremity of the outcome. Perhaps the extremity of the outcome gave subjects information that could be used in making a causal attribution. Specifically, more extreme outcomes are probably judged as more atypical and therefore are more likely to be attributed to the actor. Similarly, Walster (1966) found that more extreme accidents evoked stronger attributions of responsibility.

Possibly there is information inherent in the situations normally classified as moral or achievement that specifies whether a given outcome in that situation is deviant or atypical. If this were the case, then the differential use of outcome reported by Weiner and Peter could be explained within an attributional framework.

One distinction between the achievement and the moral stories used by Weiner and Peter is the presence or absence of competition. The achievement story depicts a child putting together a puzzle. In this situation, the child is competing against a standard of excellence. This story is a typical achievement story. Intuitively, it seems that most situations thought of as achievement are also competitive. In contrast, the moral story depicts an older child helping a younger child. This story does not involve competition with a standard of excellence. If the older child has the information to help the younger child, then the decision to help is not a competitive one. While it is not as obvious in this case as it is for achievement situations, many situations commonly regarded as moral are also noncompetitive. Thus, one possible situational cue that might vary between achievement and moral settings is the presence or absence of competition.

The presence or absence of competition in a situation may provide a cue regarding the nature of the outcome. Conceptually, competitive and noncompetitive situations differ from one another by the nature of their outcomes. To

succeed in a competitive situation implies that one has done better than most of the other actors. If only a relatively few succeed at a competitive task, then most of the actors must not succeed. Thus success (a positive outcome) is the deviant outcome in competitive situations. In contrast, in a noncompetitive situation, such as helping a friend, success is a clear possibility for every actor in that situation. Consequently, negative outcomes are the more atypical outcomes in these situations. If negative outcomes are perceived as atypical in noncompetitive situations, then adults should tend to ignore positive outcomes and to punish negative outcomes in these situations. In support, Shaw and Reitan (1969) found that both attributions of responsibility and sanctions were higher for negative outcomes than for positive outcomes in a noncompetitive situation. Similarly, if positive outcomes are perceived as the deviant outcomes in competitive situations, then adults should tend to ignore negative outcomes and to reward positive outcomes in competitive situations. In support Weiner and Peter (1973) found that older subjects rewarded positive outcomes more than they punished negative outcomes when they were evaluating an achievement story.

Degree of Social Interaction and the Importance of Intent

The difference in evaluative judgments reported by Weiner and Peter might also be due to the social context of the stories. The intention in their achievement story was clearly asocial. The actor either tried or did not try to put the puzzle together. No one else was involved in the task or was affected by the actor's behavior. In contrast, the intention in their moral story was social. The actor either wanted to or did not want to help someone else. Intuitively, it seems that the perceived magnitude of one's intentions may be influenced by the fact that other individuals are affected by one's behavior.

Empirically, Walster (1966) provided data suggesting that attributions of responsibility vary as a function of the social context of the situation. Thus, intentions having consequences for persons other than the actor may be perceived differently than intentions having consequences only for the actor. If actor A's behavior has consequences for individual B, then B will probably respond to A's behavior. B's response is an external factor that must be considered in making a causal attribution to A. If B's response is positive, then observers may discount A's intentions (Kelley, 1971). Similarly, if the observer has no knowledge of B's response but assumes that B's response will be positive, then the observer may discount A's intentions. Consequently, A's positive intentions may assume a lower value if those intentions have the potential of eliciting positive extrinsic rewards. This prediction is in line with Kelley's suggestion that "the role of a given cause in producing a given effect is discounted if other plausible causes are also present." (Kelley, 1971, p. 8). In conclusion, then, it seems that positive intentions will be discounted somewhat in social situations and thus will produce lower rewards than positive intentions in asocial situations.

In contrast, if B's response is negative, or if the observer assumes that B's response will be negative, then the observer may inflate the value of A's intentions. In this situation, the internal causal factors associated with A, namely, A's intentions, are operating despite an inhibiting, external causal factor, namely, a potentially negative response from B.

If there is an inhibiting, external cause, namely, the potential for a negative response from B, coupled with a facilitory internal cause, namely, A's negative intentions, then "the effect of the dual-cause condition is to increase the clarity of the efficacy of the internal cause and, thereby, to give

the impression of its greater strength." (Kelley, 1971, p. 12). Specifically, if the actor's intentions are negative, and the situation is social, then the observer may assume that B will respond negatively to A's actions. Consequently, the observer may conclude that A's intentions were that much more negative because he acted despite potential reprisal from B. Consequently, negative intentions would be perceived as more negative in social situations than in asocial situations.

Development of Evaluative Judgments

Another factor that has not yet been discussed is the effect of age on evaluative judgments. Weiner and Peter found that evaluative judgments in both motive systems vary as a function of age. The discussion thus far relies on the assumption that the subjects are mature, logical evaluators operating at Heider's fifth level for the attribution of responsibility: e.g., the level of justified commission (Shaw and Sultzer, 1964). Consequently, the predictions should be true for adults and older children. Developmental considerations, however, lead one to doubt that these predictions will hold for the judgments of young children. Specifically, both Piaget (1965) and Heider (1958) suggest that younger children are not able to form complex assessments of responsibility and that the use of intention cues develop and change with age. Empirical data has supported these hypotheses (e.g., Armsby, 1971; Bandura and McDonald, 1963; Buchanan and Thompson, 1973; Costanzo et al., 1973; Cowan et al., 1970; Hebble, 1972; and Piaget, 1965). Heider's work (1958) implies that there are five levels in the development of attribution of responsibility; global-association, extended commission, careless commission, purposive commission, and justified commission (Shaw and Sultzer, 1964). The first two levels correspond roughly to Piaget's stage of objective responsibility. A person is held responsible for any action associated with him or caused by him. The third level may be seen as transitional. At this stage, an individual is responsible for all

foreseeable consequences of his actions whether intended or not. The final two levels correspond to Piaget's stage of "subjective responsibility." They differ in the degree to which an observer is willing to attribute responsibility to an actor. At the level of purposive commission, an individual is held responsible if the consequences of his actions were stated as intentional. At the final level (justified commission), a person is held responsible for the consequences of his actions only if his intentions can be said to be internally controlled. . . . If the individual's intentions are determined by his larger social situation, then he is not responsible for his actions. In general, the results of several studies done by Shaw and his associates have supported Heider's model and the hypothesis that the basis for attributing responsibility changes with age, (Shaw, 1967, 1969; Shaw and Schneider, 1969a and b; and Shaw and Sultzer, 1964).

Thus, it appears that the use of intentional cues develop as a function of age. Furthermore, it appears that evaluations reflect the development of an underlying attributional process. Thus it is expected that the children's judgments across all the situations sampled in this study will follow a similar pattern. Specifically, the youngest children will base their judgments primarily on the consequences of the actor's behavior regardless of the situation, while the older children will base their judgments on their assessment of the actor's causal responsibility for the consequences of his actions. Consequently, the older children will vary their use of intent and outcome cues as a function of the situation being judged. Furthermore, if one assumes that adult responses represent the endpoint toward which children's judgments are developing, then it can be expected that the children's weighting of intent and outcome cues will develop toward the weighting patterns discussed earlier. In addition, since the developmental sequence should begin with

outcome weighted most heavily in all situations, it can be expected that there will be a differential rate of change in the importance of the outcome and the intent cue depending on the situation being evaluated.

Statement of Hypotheses

Specifically, the following predictions are made:

1. Positive outcomes will remain important evaluative cues in competitive situations, while negative outcomes will decrease in importance in these situations. In contrast, negative outcomes will remain important evaluative cues in noncompetitive situations while positive outcomes will decrease in importance in these situations,
2. Intentions will increase in importance as evaluative cues in all situations.
3. Despite this general trend toward the increased importance of intention as a function of age, negative intentions will come to be punished more in social situations while positive intentions will come to be rewarded more in asocial situations.

Method

Subjects

Thirty-two caucasian children (half male and half female) from grades kindergarten, first, second, third, fifth, seventh, and ninth served as subjects. They were recruited from an urban public school system serving a mixed socio-economic population of lower-and middle-income families. The subjects were administered the experimental materials by two white females in mixed-sex groups varying in size.

Materials

The children judged twenty-four stories varying on two situational dimensions: competitiveness (competitive or noncompetitive) and social context

(social or asocial); and on two evaluative cue dimensions: outcome (positive or negative) and intention (positive, neutral, or negative).

These dimensions were crossed factorially to produce 24 different stories (2 levels of competitiveness x 2 levels of social context x 3 levels of intention x 2 levels of outcome). For example, "Wendy didn't look when she was throwing the ball and accidentally hit and broke her window," is a noncompetitive, asocial, negative outcome and neutral intention story.

A situation was defined as competitive if the outcome could be classified as a success or a failure by some objective standard of excellence. A situation was defined as noncompetitive if the outcome could not readily be judged against an objective standard of excellence. For example, a positive competitive story would involve winning or doing well on a test; a positive noncompetitive story would involve helping someone or finishing a project.

A situation was defined as social if the actor's intentions had explicit social implications. A situation was defined as asocial if the actor's intentions had no explicit social implications. For example, a positive social story would involve the explicit desire to help a friend or to help one's team to win; a positive asocial story would involve the desire to prevent some object from being ruined or the desire to win in an individual sports event.

An outcome was defined as positive if the actor's behavior led to success at a competitive event or to beneficial consequences in a noncompetitive situation. An outcome was defined as negative if the actor's behavior did not produce success or if it produced detrimental consequences.

The actor's intention referred to both the intentions regarding the consequences of the behavior and his efforts to implement these intentions. Positive intention was defined as a desire to do a good thing or a desire

to succeed coupled with the necessary efforts to achieve that goal. Neutral intention was defined as the absence of intention coupled with no effort to achieve the goal. Negative intention was defined as a desire to do a bad thing or the conscious decision not to try.

Because younger children tire rapidly if exposed to highly repetitive material used, twelve different story themes were used. The particular theme used for each story was chosen on the basis of the credibility of the particular combination of the four dimensions in that story. To control for the possibility that the results in a given condition would be an artifact or a particular theme for that cell, two sets of stories were used. Each set was composed of the same story themes. However, a particular theme occurred in a different factorial combination of the outcome x intention dimensions in each set. Thus a particular theme had the same competitiveness and social context classification in both story sets, but differed in its outcome and intention classification.

Each story set was given to half the subjects in each age and sex group. As an additional control for order effects, the stories were presented in one of two random orders. Half the stories in each of the four orders (2 sets x 2 orders) had female actors and half had male actors. Thus, there were a total of eight different story booklets (2 sets x 2 orders x 2 genders). Each booklet contained stories with actors of only one sex. Half the children of each sex received the male stories and the remaining children received the female stories. Thus, two children of each age and each sex had identical story booklets.

The story booklets contained both the written story captions and pictures to illustrate the story: two pictures per story, one story per page.

For the younger children, in the grades kindergarten through third., the stories were also read on a tape recorder. The subjects made their responses on a scale printed in the booklets beneath the story being judged. The scale consisted of 1 to 5 minus's for negative evaluations and 1 to 5 plus's for positive evaluations.

In summary, the investigation included four within subject factors: competitiveness, social context, the actor's intentions, and the outcome. Each subject was asked to evaluate the performance of a hypothetical actor in 24 situations representing all 24 experimental conditions (2 levels of competitiveness x 2 levels of social context x 3 levels of intention x 2 levels of outcome). In addition, the study included three between subject factors: grade (7 levels), sex (2 levels), and gender of actor (2 levels). Set and order effects were assumed to be part of error variance and thus were not investigated. Thus, there were a total of 1152 experimental cells with data from eight subjects in each cell.

Procedure

The children were taken in groups from their classroom to the testing room by one female experimenter. After the booklets were distributed to each child, the scale was explained and the children were given practice using the scale, (Specific instructions can be obtained from the author) until the experimenter was satisfied that each child understood it. The children were given four practice trials and then allowed to work through their booklet.

The younger children proceeded through their booklets at the pace set by the tape recorder. If a child wanted to hear the story a second time, the story was replayed on the recorder. The older children proceeded through

booklets at their own pace. After all the children had finished making their judgments, the booklets were collected and the children returned to their classroom.

RESULTS AND DISCUSSION

Since predictions were made in terms of developmental processes, the major portion of the results will be presented with the independent variables in interaction with age. Due to the complexity of the data, a brief discussion of the major findings will be interspersed with the results. To aid in the interpretation of the data, three rules were used in the determination of significance:

The alpha level was set at $p < .01$ for the major analyses of variance; at $p < .01$ for the Newman-Keuls Multiple comparison Tests; at $p < .001$ for the simple effects tests and trend analyses¹.

Summary of Analyses Performed

A mixed, repeated measure analysis of variance design was used for the major analyses. Table 1 provides a summary of this analyses. The percentage of total variance accounted for was used to estimate the size of some of the significant effects. Assuming that the magnitudes of the systematic effects reflect the weighting of the cues, then the percent of variance accounted for provides an estimate of the relative weighting of each factor at each age level. Simple effects were analyzed using the procedure discussed in Kirk (1969). As he suggests, pooled error terms were used to test the significance of these simple effects. In addition to the tests relevant for the apriori prediction, simple effects of theoretical interest to the researcher were also tested. In neither case were these analyses based on aposteriori examination of the data.

¹Kirk (1969) suggested that the alpha level should be adjusted when a large number of simple effects are being tested. Consequently, since a large number of simple effects and trend analyses were performed in the present study, the alpha level was set at $p < .001$ for these tests.

Table 1

Summary of Significant Effects (Grade (G),
Sex (S), Gender (Ge)
Competitiveness (C), Social Context (A), Intent (I),
and Outcome (O) Factors

Source	df	MS	F
C	1	642,14	111.57***
A	1	14,58	4,31*
I	2	6493.28	757,19***
O	1	19626,86	1000,00***
GC	6	21,62	3,76**
GA	6	11,12	3,29**
GI	12	51,51	6,01**
CI	2	98,43	19,56***
GO	6	189,58	12,78***
CO	1	105,18	15,19***
GCI	12	13,70	2,72**
GCO	6	21,07	3,04**
CAO	1	47,65	12,86***
CIO	2	16,89	3,60*
AIO	2	107,51	25,70***
GCAO	6	11,62	3,14**
CAIO	2	53,93	11,80***
GECI	2	20,73	4,18*
GECAI	2	23,16	4,26*

*p < .05

**p < .01

***p < .001

Since grade is a quantitative variable, linear trend analyses were performed for all the grade effects that appeared in significant interactions. Since the significance of a pattern of consistent change as a function of age was of primary interest, linear trends and departures from linearity were evaluated.

Several of the predictions imply a differential rate of change in the use of outcome or intent cues as a function of age. Consequently, it was necessary to test for the significance of these differential rates. If evaluation is plotted as a function of age, then the slope of the curve provides a mathematical expression for the rate of change. A procedure discussed in Myer (1966) was used to test for the significance of these slope differences. In this procedure, the sums of squares for the grade $\text{linear} \times \text{age}$ interaction is calculated and tested against the grade $\times \text{age}$ interaction error term.

Since the dependent measure included both reward and punishment, a significant interaction is obtained if the developmental curves differ only in the sign of the slope. For example, if the use of intention increases in importance over age, then the developmental curves for positive and negative intention would diverge from one another. This divergence would be reflected in a significant grade $\times \text{intention}$ interaction, and a significant grade $\text{linear} \times \text{intention}$ interaction. However, at several points in the results and discussion, it is essential that the significance of the difference in the rate of change be evaluated. To test for a significant difference in the rate of change, it is necessary to calculate the absolute amount of reward or punishment. This transformation has the effect of converting the negative sloped curve into a positive sloped curve with the same slope. Using the sums of squares from these scores, it is now possible to use the grade $\times \text{outcome}$ interaction and the grade_{lin} $\times \text{outcome}$ interaction as tests of the significance

in the differential rate of change in the use of outcome as an evaluative cue.

The results and discussion are divided into three main subsections: Outcome-Related Findings, Intent-Related Findings, and Findings Related to the Differential Weighting of Intent and Outcome. Within each of these subsections, the findings are presented in a fixed sequence, beginning with the main effects and progressing through the interactions from simple to more complex.

Neither Main effect for grade or sex was significant ($F < 1$). Thus, there is no overall tendency for evaluative judgments to become more lenient or harsh with increasing age and there is no overall tendency for either sex to be more lenient or harsh than the other.

Outcome

Table 1 indicates that the outcome manipulation affects evaluative judgments across all ages investigated, $F(1, 210) = 1000, p < .0001$. At all ages children reward positive outcomes and punish negative outcomes. But the significant interaction $F(6, 210) = 12.78, p < .001$ (Table 1) indicates that their effect is influenced by age. Specifically, there is a gradual decrease in the reward for negative outcomes ($F_{lin}(1, 210) = 20.72, p < .001$) and in the punishment for negative outcomes ($F_{lin}(1, 210) = 42.77, p < .001$) with increasing age. Thus, when outcome is averaged across all situations, there is a significant gradual decrease in the importance of outcome as an evaluative cue as a function of age.

The Newman-Keuls analysis of grade changes, given negative outcome, reveals a significant change in punishment only between grade three and five, $p < .001$. Thus, children in grades kindergarten - third are punishing negative

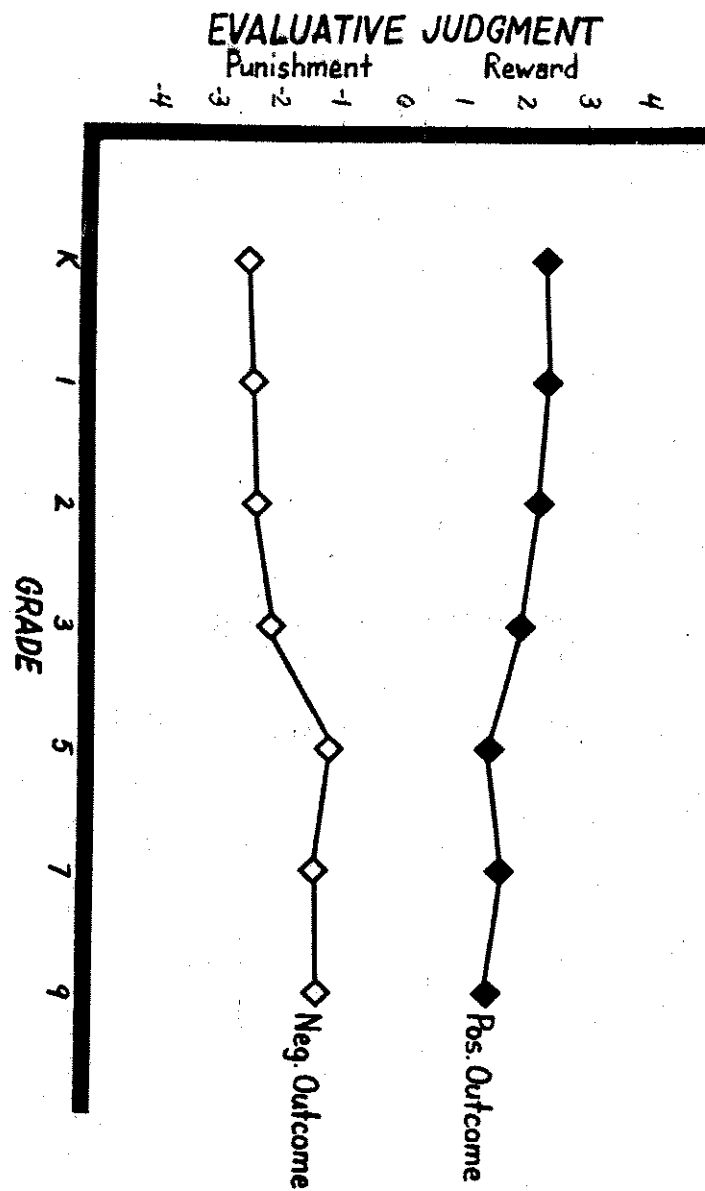


Figure 1 Relationship between Evaluative Judgments, Grade, and Outcome

outcomes significantly more than children in grades five - nine. Hebble (1971) also reports data suggesting significant drop in the punishment for negative outcome following the third grade. Together, these findings support Piaget's (1965) hypothesis of shift in the use of negative outcome as an evaluative cue between the ages of nine to ten.

It is of interest to note that outcome remains a significant factor at all ages. Earlier studies in the development of moral judgments (Cowan et al., 1969, and Piaget, 1965), suggested that outcome becomes a negligible factor in evaluative judgments as children grow older. These data do not support that contention. However, several other recent studies using quantitative dependent measures similar to the measure used in the present study have also reported data indicating that outcome remains a significant factor in evaluative judgment (Buchanan and Thompson, 1972; Costanzo et al., 1973; Hebble, 1971; and Weiner and Peter, 1973).

In summary, these data reveal that outcome, when averaged across all the situations, decrease in importance as an evaluative cue as a function of age. As predicted, children give fewer rewards for positive outcomes and less punishment for negative outcomes as they get older. These findings coincide with findings reported in the literature on the development of moral judgments. Piaget suggested two characteristics of the thought processes of young children that might be responsible for the early importance of outcome. First, children cannot put themselves into the role of the other person. In addition, their thought processes are controlled by concrete, observable cues. As a consequence of these two characteristics, Piaget suggested that young children base their moral judgments on outcome. It seems that Piaget's suggestion implies an inability on the part of the child to form causal judgments.

However, it is also possible, as Heider (1958) suggested, that young children are making undifferentiated causal judgments. That is, children assume that a person causes or is responsible for any consequences associated with him. Alternatively, young children may focus on only one cue in making their judgments. Three studies suggest that young children are more likely to recall the most recent cues (Cole, Frankel & Sharp, 1971; Feldman, Chereskin, Parsons, Rholes & Ruble, 1976; Parsons, Ruble, Chereskin, Feldman & Rholes, 1976). Since the outcome cue is presented first in the present study as it is in most studies on the development of moral judgments, it is possible the decline in the importance of the outcome cue represents a decline in the recency bias evident in the recall of younger children.

Grade x Competitiveness x Outcome Interaction

The grade x competitiveness x outcome interaction is significant, $F(6, 210) = 3.04, p < .01$. This interaction is directly related to the apriori prediction that positive outcomes would remain important evaluative cues in competitive situations but not in noncompetitive situations, while negative outcomes would remain important cues in noncompetitive situations but not in competitive situations. The (see Fig. 2) graph suggests that this is the case.

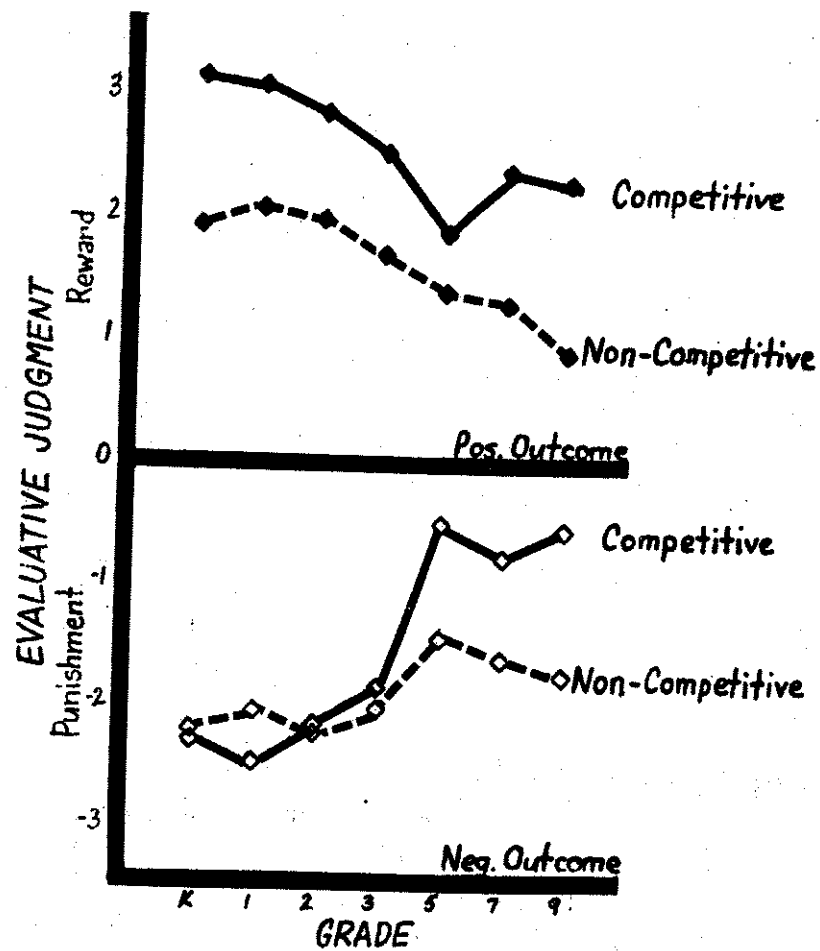


Figure 2. Relationship between Evaluative Judgments, Grade, Outcome, and the Competitiveness of the Situation

Developmental changes in evaluation of outcome; overview. The simple effects analysis for grade at each level of competitiveness and outcome indicate a significant grade effect for three of the four developmental curves: positive outcomes for competitive stories, $F(6,840) = 4.15, p < .001$; negative outcomes for competitive stories, $F(6,840) = 14.2, p < .001$; and positive outcomes for noncompetitive stories, $F(6,840) = 3.57, p < .005$. There is no significant grade effect for the negative outcome, noncompetitive situation, $F(6,840) = 1.94, p < .05$. The linear trend is also significant for each of the three curves with significant grade effects: $F(1,210) = 12.5, p < .001$, $F(1,210) = 72.8, p < .001$, $F(1,210) = 18.2, p < .001$, respectively. Furthermore, the Newman-Keuls Multiple Comparison Test indicates that the reward for positive outcome at grade five is significantly smaller than the reward at grades one and two for both competitive and noncompetitive stories, $p < .01$. Based on the significance of both the linear trends and the Newman-Keuls analysis, it can be concluded that there is a steady decrease in the importance of positive outcome for both situations from grades one to five. The apparent upward shift of the positive outcome, competitive developmental curve will be discussed later. In contrast, the Newman-Keuls Multiple Comparison Test for the punishment, given negative outcome in competitive situations, indicates that there is a marked shift in the amount of punishment following grade three. Children in grades five, six and seven punish negative outcomes in the competitive situation significantly less than children in grades kindergarten through third. As noted earlier, this shift conforms to the shift reported by both Piaget (1965) and Hebble (1971). However, while their results were based on "moral" situations, this result is based on competitive situations. In the present study, the corresponding shift for the noncompetitive

situations is much less marked. Apparently the significant shift evident in the amount of punishment given for negative outcomes reported earlier (Figure 1) is primarily the result of the abrupt decrease in the amount of punishment given in competitive situations.

Developmental changes in evaluation of outcome in competitive situations.

Despite a significant decline in the importance of both positive and negative outcomes as evaluative cues, inspection of the competitive curves also suggests that there is a differential rate of decline in the use of outcome information depending on the nature of the outcome for competitive situations. The grade_{lin} x outcome interaction using the absolute scores for the amount of reward and punishment supports this conclusion, $F(1,210) = 12.4, p < .001$. Thus as predicted, the rate of decline in the use of negative outcome information is more rapid than the rate of decline in the use of positive outcome information.

Developmental changes in evaluation of outcome in noncompetitive situations.

Positive outcome information decreases in importance while negative outcome information continues to be important at all ages when evaluating noncompetitive situations. Thus, as predicted, in the noncompetitive situations there is a differential decline in the use of outcome information depending on the nature of the outcome. As predicted, when evaluating noncompetitive situations, positive outcomes decline in importance while negative outcomes remain equally important with increasing age.

Evaluative Bias as a Function of the Situation

One additional consequence of the evaluative biases associated with competitive and noncompetitive situations is of interest. When one averages the amount of reward and punishment given to competitive and noncompetitive situations respectively, one finds that competitive situations are rewarded

while noncompetitive situations are punished. Figure 3, illustrates this point. These curves represent the average reward or punishment for competitive and noncompetitive situations. Two conclusions seem apparent: competitive situations receive more rewards and the amount of this differential reward increases with age. The simple effects for competitiveness at each grade support the first of these two conclusions, $p < .01$. Competitive situations are rewarded significantly more than noncompetitive situations at each grade except the first. The significant grade x competitiveness interaction, $F(6,210) = 3.8$, $p < .001$, supports the second of these two conclusions (Table 1). When this interaction is broken into its simple grade effects, it is obvious that there is an increase in the amount of reward given to competitive situations, $F(6,210) = 2.33$, $p < .05$, while the evaluation for noncompetitive situations remains constant, $F < 1(6,210)$. Weiner and Peter (1973) found a similar distinction in the evaluative bias as a function of moral and achievement themes. Children in their study tended, on the average, to reward the actions in achievement stories and to punish the action in moral stories. In addition, the magnitude of the positivity bias for achievement situations increased with age. The similarity of these findings suggest that the subjects used by Weiner and Peter were responding to the competitiveness of the situation rather than to the achievement/moral distinction.

One reason for this evaluation bias is that positive outcomes are rewarded more in competitive situations than in noncompetitive situations across all ages, $p < .01$ or greater. The fact the children aged seven and over in both these studies (Weiner and Peter, 1973, and the present study) give less reward for positive outcomes in noncompetitive situations, suggests that children begin to devalue the importance of positive outcomes in these situations at an early age. Data from Weiner and Peter's suggest that this

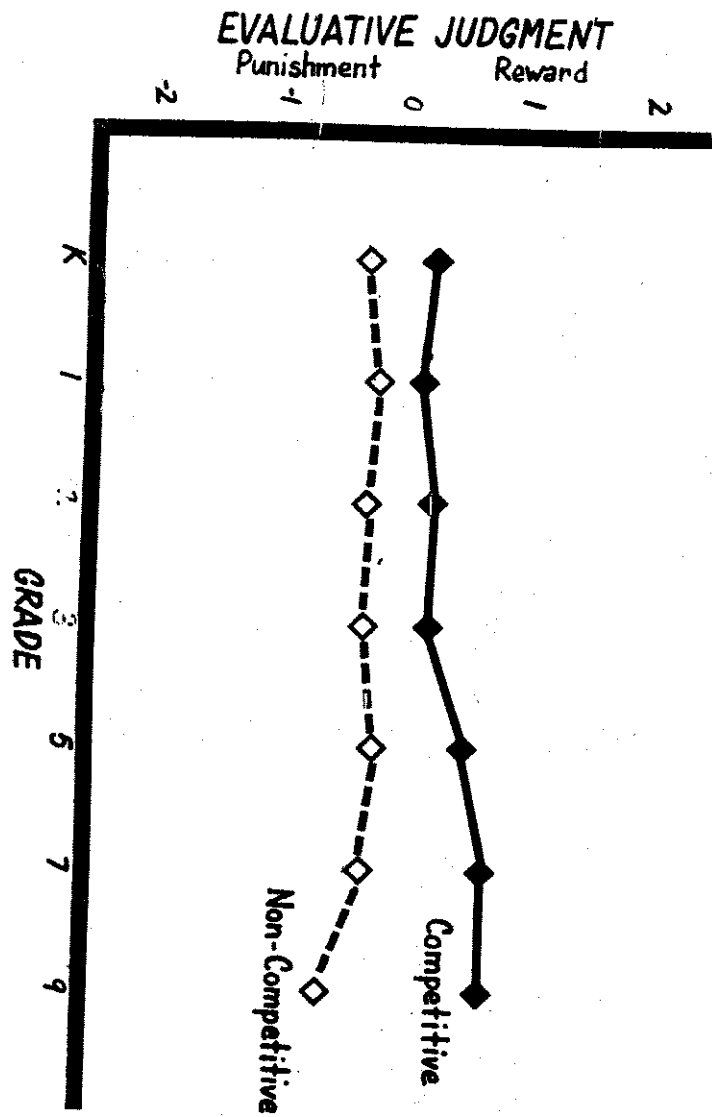


Figure 3 Relationship between Evaluative Judgments, Grade, and the Competitiveness of the Situation

is the case. They found that children between four and six reward positive outcome equally regardless of the situation. Using stories that would be classified as social, noncompetitive, Costanzo et al. (1973) also found an earlier decline in the importance of positive outcomes than negative outcomes. Based on these data (Costanzo et al., 1973), it could be predicted that the kindergarten children in the present study would allocate less reward for positive outcomes than punishment for negative outcomes in non-competitive situations. Figure 2 suggests that this is the case. Thus it seems that children begin discounting outcome as an evaluative cue first for noncompetitive positive outcome stories.

There is no comparable discrepancy in the importance of outcomes as an evaluative cue in competitive situations: positive outcomes are as equally as important as negative outcomes.

Piaget (1965) suggests that experience with situations facilitates the development of intent-based evaluative judgments. Perhaps the lag in the decline in importance of outcome in competitive situations is due to the newness of academic experience for these children. They may not have had enough experience relating effort, intent, and outcome in competitive situations to be aware of the importance of intent as an evaluative cue in these situations.

In conclusion, it has been suggested that the differential rewards for positive outcomes, depending on the situation being judged, is the result of two processes. For the older children, the differential reward reflects the operation of a mature attributional system. That is, older children reward positive outcomes more in competitive situations than in noncompetitive situations because positive outcomes in competitive situations are more likely to be attributed to the actor. For younger children, the differential reward reflects an earlier emergence of the importance of intent as an

evaluative cue in noncompetitive situations with positive outcomes. That is, younger children, either because they have more experience with noncompetitive situations or because their peers and adult models reward outcome more in competitive situations or because of an interaction of both these processes, weight positive outcome as evaluative cues more at the youngest ages in competitive situations. Alternatively, because their parents and teachers want them to get a good start in school, their parents and teachers may be rewarding the children for outcomes rather than efforts. Consequently, if this is the case, the children's judgments may reflect the reward-punishment contingencies operating in their social environments.

Shifts in Developmental Trends

In addition to these significant linear trends reported earlier, both the positive and the negative outcome developmental curves for the competitive stories evidence a significant departure from linearity: F_{dep} from linearity (1,210) = 12.2, $p < .001$; and F_{dep} from linearity (1,210) = 12.0, $p < .001$, respectively. Inspection of the curves suggests that the results from grades seven and nine are responsible for this departure (Figure 2). For both negative and positive outcomes, there is a break in the developmental curve following grade five, suggesting either a leveling-off of the decline in the importance of outcome or, given positive outcomes, a reversal of the trend. While a Newman-Keuls Multiple Comparison Test failed to yield a significant difference between grades five and seven in the reward for positive outcome, the significant departure from linearity does suggest that a shift in the developmental trend does occur between these grades. Weiner and Peter (1973) reported a comparable upward shift in the rewards given to actors for positive outcomes in achievement settings occurring between 12 and 13 years of age. At some time between the fifth and seventh grade, children reappraise the

the importance of success as an evaluative cue. Several factors could account for this. Significant others in the child's social system might increase their reward for success during this age period. For example, because children change peer groups as they enter junior high school, they may increase their use of outcome as an evaluative cue until they know each other better. Consequently, the shift might reflect a change in the reward contingency operating in the child's environment. Alternatively, the child might have become aware of the need to use several bits of information in making evaluative judgments and consequently reconsidered the importance of outcome as an evaluative cue. Or, increasing awkwardness due to the onset of adolescence may have increased the children's awareness of outcome as an important parameter in evaluations.

In contrast to the shifts noted for competitive situations, the developmental trend for the decreasing importance of positive outcome in the noncompetitive stories represents a gradual and continual decrease across all the ages investigated. Once again, this finding replicates the results reported in Weiner and Peter (1973). They found a gradual decline in the reward given actors for positive outcomes in moral settings. The similarity between the developmental curves for positive outcomes in achievement and competitive settings and the similarity between the developmental curves for positive outcomes in moral and noncompetitive settings further support the suggestion made earlier that the subjects used by Weiner and Peter were responding to the competitive, noncompetitive distinction inherent in the stories being judged.

Given negative outcomes, children in grades five, seven and nine are punishing negative outcomes less in the competitive situations. This differential probably reflects the emergence of a more mature attributional system. Since

negative outcomes are typical in competitive settings, the older children have learned to discount negative outcome information in making evaluative judgments of competitive situations.

As a consequence of these evaluative biases, children allocate more rewards for competitive situations and, in grades five, seven and nine, allocate more punishment in noncompetitive situations (Figure 3).

The outcome x competitiveness simple interactions for each grade indicate that the competitiveness of the situation has a significant effect on the magnitude of the outcome main effect only kindergarten, $F(1, 210) = 11.0, p < .001$, and the first grade, $F(1, 210) = 14.6, p < .001$. To interpret these effects, the resultant evaluations for outcome were calculated for competitive and noncompetitive situations within each grade. (The resultant evaluation provides an estimate of the magnitude of the outcome main effect for each of the 14 G x C cells. It equals the sum of the absolute differences between the reward or punishment for each level of outcome at each grade and the grand mean of the evaluations for that grade. Thus, it is an estimate of the magnitude of the deviation from the grand mean that is caused by the outcome manipulation.) Children in kindergarten and the first grades use outcome information more in competitive situations than in noncompetitive situations. The analysis of the proportion of variance accounted for by the outcome manipulation provides additional support. Outcome accounts for more variance in competitive situations than in noncompetitive situations only in kindergarten and the first grade (see Figure 9). These data are not in agreement with the data reported in Weiner and Peter (1973). They found that outcome drops out as an evaluative cue to a much greater extent in moral contexts than in achievement contexts. In the present study, outcome decreases in importance as an evaluative cue to approximately the same level regardless of the situation. This discrepancy

may be the result of the particular stories used by Weiner and Peter. Their moral story involved a younger child asking for help in getting home. A negative outcome was defined by the child not getting home in time for dinner; a positive outcome was defined by the child getting home in time for dinner. However, these outcomes were paired in half of the stories with the older child's inability to help because he did not know the way to the younger child's home. Consequently, the outcome cue was irrelevant for evaluation in at least half of the stories judged. Thus, the evaluation associated with this particular outcome cue in these stories may have magnified the drop in importance of outcome as an evaluative cue.

Outcome Effects Associated with the Social Context

Of all outcome effects involving the social context factor only the four-way interaction of grade x outcome x social context x competitiveness was significant, $F(6, 210) = 3.14, p < .005$. Simple effects tests indicated that social context influences evaluations only when the situation is competitive and the outcomes are negative, $F(6, 840) = 3.90, p < .01$, and when the situation is noncompetitive and the outcomes are positive $F(6, 840) = 2.60, p < .05$. We have been suggesting that positive outcomes were atypical and thus strong attributional cues in competitive situations, and that negative outcomes were atypical and thus strong attributional cues in noncompetitive situations. The data associated with the grade x competitiveness x age x outcome interaction indicates that the social context manipulation has no effect in these two competitiveness x outcome cells. In contrast, in the remaining two competitiveness x outcome cells, social context does influence the children's evaluations. When the situation is competitive and the outcomes are negative, children in grades one, $p < .001$; two, $p < .01$; and three, $p < .05$ only allocate relatively more punishment in social than in asocial contexts.

For example, young children punish Linda more for not hitting the ball in her school baseball game than for not winning the swimming race.

Conversely, when the situation is noncompetitive and the outcomes are positive, children in grades kindergarten, $p < .01$; first, $p < .01$; third, $p < .05$ only allocate relatively more rewards if the situation is asocial; e.g., these children reward Dave more for doing a nice job of putting together his scrapbook than for helping his father water the lawn.

In each case, the differences reflect differential developmental timetables for the decline in the importance of outcome as an evaluative cue. In all competitive x outcome cells older children evaluate social and asocial situations similarly. But in the younger age groups, children have reduced the magnitude of their evaluative responses for asocial failures in competitive settings and for social successes in non-competitive settings.

Summary of the Development of the Relationship Between Outcome and

Evaluation

The findings reported thus far indicate that the relationship between outcome and evaluation depends on several factors: age, nature of the outcome, and the nature of the situation. In general, there is a gradual decline in the importance of outcome as an evaluative cue as a function of age. However, the magnitude of this trend is dependent on the nature of the outcome and on the situation being evaluated. Specifically, as predicted, there is a more rapid decline in the punishment given for negative outcomes than in the rewards given for positive outcomes in competitive situations. In the competitive situation, there is also a significant departure from linearity in the developmental trends for the relationship between evaluation and both positive and negative outcomes. Figure 2 suggests

that this departure is due to the break in both curves occurring between grades five and seven. This break indicates that there is a leveling-off, if not a reversal, of the trend toward a decline in the importance of outcome as an evaluative cue in competitive situations. As discussed earlier, Weiner and Peter (1973) found a similar reversal in the developmental trend for the achievement story.

Also as predicted, given noncompetitive situations, there is a decline in the importance of outcome only if the outcome is positive. There is no significant change in the relationship between negative outcome and evaluation. Consequently, negative outcomes are punished more in noncompetitive situations than they are in competitive situations in grades five-nine. Furthermore, the amount of reward given for positive outcomes in the noncompetitive situations is significantly less than the amount of reward given for positive outcomes in competitive situations at all ages. Thus, on the average, competitive outcomes receive relatively more reward while noncompetitive outcomes receive relatively more punishment. This result is illustrated in Figure 3. A similar bias was reported in Weiner and Peter (1973). They found that their achievement stories received relatively more punishment. Children in kindergarten and first grade are using outcome as an evaluative cue more in competitive situations than in noncompetitive situations. If one assumes that the decline in the importance of outcome as an evaluative cue reflects a developmental process (Piaget, 1965), then these data suggest that the developmental process begins earlier in noncompetitive than in competitive situations. Since the youngest children had just begun school, it is possible that they are receiving a lot of reinforcement from their teachers and parents for positive outcome in competitive situations. This reward may maintain the saliency of positive outcomes as an evaluative cue longer in competitive situations.

Whether the actors' intentions were social or asocial also influenced the relationship between outcome, evaluation, and age.

In competitive situations, social intentions increase the magnitude of punishment for negative outcome in grades one and two. This effect probably reflects a developmental lag in the decline of the importance of outcome in social, competitive situations with negative outcomes. The presence of social interaction also influences the magnitude of reward for positive outcome in noncompetitive situations. While there is a decline in the reward for positive outcome in asocial, noncompetitive situations, there is no systematic decline in the amount of reward for positive outcomes in social situations. In addition, there is significantly less reward for positive outcomes in social situations in grades kindergarten and first. Again, this effect probably reflects a developmental lag in the decline in the importance of positive outcomes as evaluative cues in asocial competitive situations.

Intention

The F values in Table 1 indicate a significant intention main effect across all grades, $F(2,210) = 757.19, p < .0001$ (see Fig. 4).

Grade x Intention

The grade x intention interaction is significant, $F(12,210) = 6.01, p < .001$, indicating that the association between reward and punishment, and intention is influenced by the age of the subjects. Figure 4 suggests two conclusions: 1) this interaction is due to an increasing tendency to reward positive intention and to punish negative intentions with advancing age; 2) there is a reversal in the developmental trend at grade seven for both positive and negative intentions. The test of the simple effects of grade at each level of intention and the test for linear trends associated with these simple effects confirm the first suggestion: Grade effects for positive intentions, $= F(6,680) = 5.7, p < .001$; for negative intentions, $= F(6,630) = 4.66, p < .001$, for neutral intentions insignificant, $p < 1$; the linear trends of grade for positive intentions, $= F(1, 630) = 24.32, p < .001$; of grade for negative intentions, $= F(1,630) = 39.49, p < .001$. The significant departures from linearity for the positive and negative intention curves support

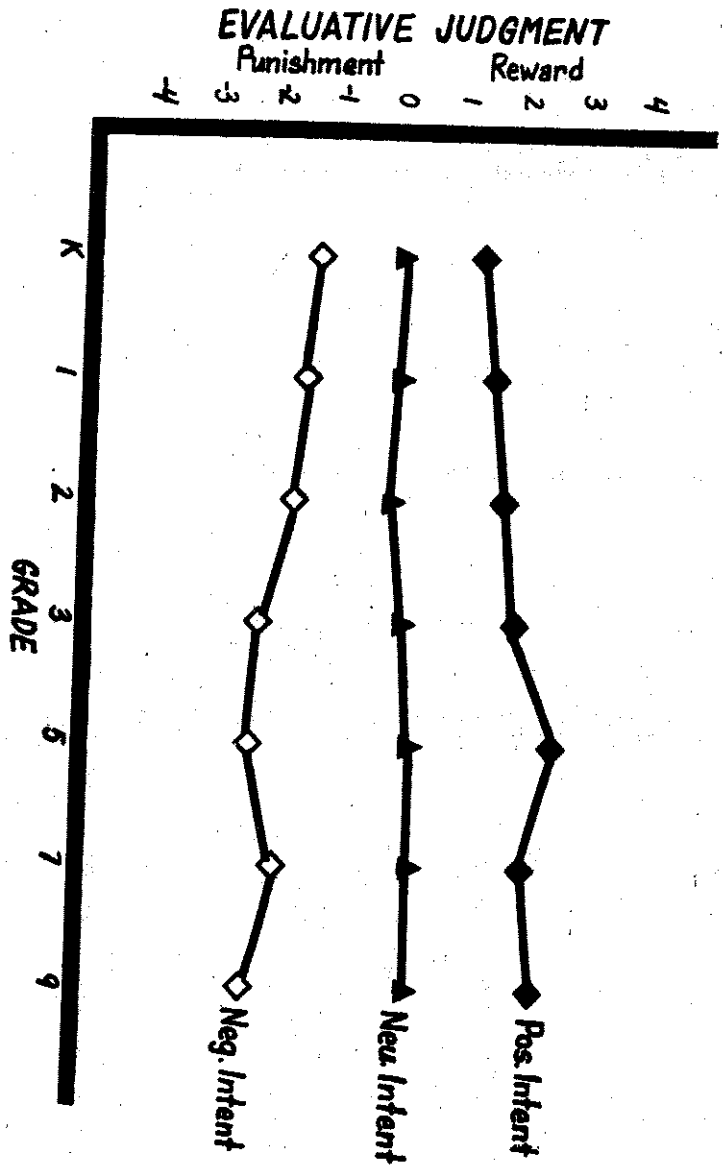


Figure 4. Relationship between Evaluative Judgments, Grade, and Intentions

the second suggestion, $p < .01$ in each case. Even though the Newman-Keuls Multiple Comparison Test does not indicate a significant mean difference between grades five and seven, $p > .05$, the responses at grade seven clearly represent a break in the smooth linear trend evident up to that grade.

In summary, then, it can be concluded that the rewards given for positive intentions and the punishment given for negative intentions increase as a function of age up until the seventh grade. Children in the seventh grade appear to have reappraised the importance of intent with the result that they are giving smaller rewards and punishment for the actor's positive and negative intentions. There was a comparable reappraisal of the importance of outcome during this same age period. A similar result was also reported by Weiner and Peter (1973), who found that children's punishment for the lack of effort in an achievement task decreased markedly at this grade level. In the Weiner and Peter data, this shift was due primarily to a decrease in punishments given for lack of effort when the outcome was positive. However, they did not find that children's rewards for either effort in achievement tasks or for good intentions in moral tasks decreased in this age period. Thus, the children develop an increased awareness of the importance of success when they enter junior high school, perhaps because they are being rewarded more for success than for trying hard.

It is also of interest to note that the intention manipulation has a significant effect at each grade level. Similar results have been reported in several recent studies in moral evaluation (Buchanan and Thompson, 1973; Hebble, 1971; and Weiner and Peter, 1973). Earlier studies (Gowen et al., 1969, and Piaget, 1965) had suggested that very young children do not use intention information in making moral evaluative judgments. Clearly, the present study indicates that young children can and do use intention information. The intention manipulation is highly significant, even among the kindergarten children, $F(2,420) = 49.75$, $p < .001$. As reported earlier, the importance of outcome as an evaluative cue also extended for more years than had been reported in other studies. As has been noted in other

studies, it is probably the methodology used in the earlier studies that led to the underestimation of this use of intent at younger ages as well as the underestimation of the use of outcome at older ages. The question of relative weighting of intent and outcome cues will be discussed further later.

Grade x Competitiveness x Intention Interaction

The grade x competitiveness x intention interaction is significant, $F(12, 420) = 2.71, p < .005$. Therefore, the relationship between evaluation of intent and grade depends on the competitiveness of the situation being judged, (see Fig. 5).

Developmental changes in evaluation of intention in competitive situations.

The simple effects of grade at each level of competitiveness x intention indicates a significant grade effect for two of the six possible developmental curves: positive intentions in competitive situations, $F(6, 1260) = 10.55, p < .001$, and negative intentions in competitive situations, $F(6, 1260) = 4.18, p < .001$. There is also a significant linear trend for the increasing rewards allocated to positive intentions in competitive situations, $F(1, 260) = 52.4, p < .001$. This result suggests that there is a gradual, consistent increase in the reward for positive intentions in competitive situations as a function of age. Children in the upper three grades reward positive intent significantly more than the children in the lower three grades, $p < .01$.

In addition to the significant linear trend, there is also a significant departure from linearity, $F(1, 1260) = 10.8, p < .001$ for the positive intention curve in competitive situations. Inspection of the curve suggests that the results in grades seven and nine are responsible for this significant departure. While the Newman-Keuls Multiple Comparison Tests between the evaluative means of grades five and seven fail to reach the established level for significance, the significant departure from linearity does suggest a shift in the developmental trend some time between those grades.

The linear trend for the negative intention curve in competitive situations is

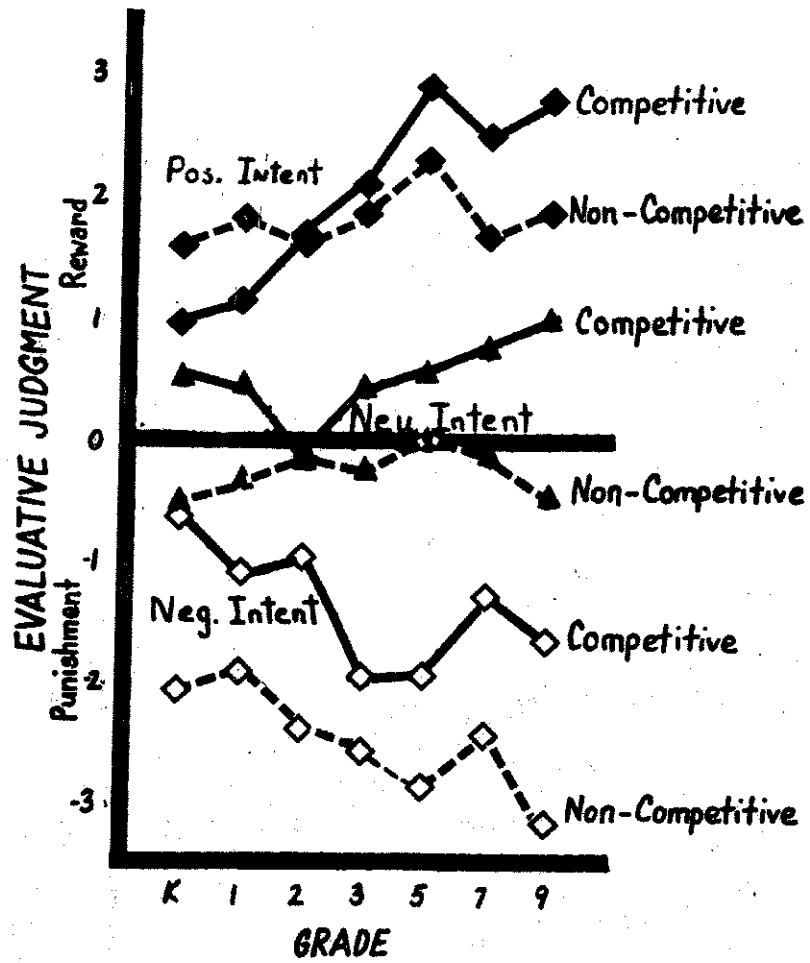


Figure 5. Relationship between Evaluative Judgments of Intention, Grade, and the Competitiveness of the Situation

marginally significant, $F(1, 1260) = 7.55, p < .01$. The departure from linearity for this curve is highly significant, $F(1, 1260) = 17.6, p < .001$. Thus the grade effect in the relationship between evaluation and negative intentions in competitive situations cannot be characterized as a linear function representing a gradual increase in the importance of negative intentions as evaluative cues. Instead, children in kindergarten, first, and second grades punish negative intentions less than children in the third and fifth grades, but not less than children in the seventh and ninth grades, $p < .01$. Both Hebble (1972) and Piaget (1965) reported an abrupt shift in the amount of punishment given to negative intentions at approximately eight years of age. Positive intentions were not included in either of their studies. Based on data in the present study, it is clear that an abrupt shift occurs in only one of the six possible competitiveness x intention conditions: the negative intent, competitive condition. A similar result is reported in Weiner and Peter (1973) who found a significant decrease in the amount of punishment given for lack of effort in achievement situations following age twelve. As suggested earlier, it may be that children in this age group have become aware of the value placed on success regardless of the intentions of the actor and, therefore, are not punishing negative intentions when accompanied by success or rewarding positive intentions when accompanied by failure. It is also possible that the children, due to cognitive maturity, are less willing to make internal attributions to others. Heider (1958) suggests that the highest level of attributions is characterized by a reluctance to attribute even intentions internally. He suggests that individuals attributing responsibility at level 5 will not make internal attributions unless the actor's intentions are under internal control. It is possible that older children are less likely to attribute internal responsibility because they are more aware of the possibility of extenuating circumstances. Apparently, in support of the results reported by Costanzo et al. (1973), the developmental pattern associated with the emergence of the use of

intent depends on the valence of the intent and on the situation being evaluated.² Whether the specificity of the developmental patterns reflects social learning processes or an interaction between cognitively maturation and experience remains to be investigated. The grade_{lin} x intention simple interaction for competitive situations, $F(2, 630) = 17.0, p < .001$, indicating that the linear rate of change in the amount of reward or punishment allocated on the basis of intention depends on the nature of the actor's intentions. An inspection of Figure 5 suggests that the rate of change is most rapid for positive intentions. The grade_{lin} x intention simple interaction for positive and negative intentions only is significant, $F(1, 420) = 10.2, p < .001$ supporting this interpretation. Thus, given competitive situations, the rate of change in the amount of reward given for positive intention as a function of age is more rapid than the comparable rate of change in the amount of punishment given for negative intentions. Since the two curves begin with children in kindergarten rewarding positive intentions approximately the same amount that they punish negative intentions, then the significant difference in slopes indicates that older children come to reward positive intentions more than they punish negative intentions in competitive situations. Perhaps in competitive situations positive intentions provide better cues for the attribution of responsibility than do negative intentions. If this were the case, then, as children develop cognitively and become more sophisticated attributors, they would come to place more evaluative importance on positive intentions than on negative intentions in competitive situations. This will be discussed further later.

Developmental changes in evaluation of intention in noncompetitive situations.

²Since the G effects for neutral intentions were insignificant for both competitive and noncompetitive situations, no further analyses were done on this level of I. It was assumed that there were no significant developmental patterns for the amount of reward or punishment given for neutral intentions.

An inspection of the curves depicting the development of the relationship between evaluation and intention within noncompetitive situations suggests a differential rate of change depending on the level of intention (Figure 3). The grade x intention interaction for noncompetitive situations is significant, $F(12, 630) = 1.9, p < .05$. Both the grade effect, $F(6, 1260) = 2.97, p < .01$, and the linear trends $F(1, 1260) = 11.70, p < .001$, for negative intention in noncompetitive situations are significant. In contrast, neither the grade effects on the linear trends are insignificant for both the positive intention curve, $F < 1$, and the neutral intention curve, $F < 1$. Thus, given noncompetitive stories, there is an increase in the importance of only negative intentions as evaluative cues as a function of age.

Developmental changes in evaluation of neutral and negative intent as a function of the competitiveness of the situation. The grade x competitiveness interaction is insignificant for both neutral intentions, $F < 1$, and negative intentions, $F(6, 420) = 1.47, p > .10$. In addition, the simple main effect for competitiveness is significant in both the neutral intention condition, $F(1, 630) = 49.64, p < .001$, and the negative intention condition, $F(1, 630) = 105.92, p < .001$. Taken together, these four results suggest that there is a significant difference between competitive and noncompetitive situations in the amount of reward or punishment given for both neutral and negative intentions. They also suggest that these differences exist for each grade studied. The simple effects of competitiveness for neutral intention at each grade confirms this supposition for all grades except the second, third, and fifth. The simple effects of competitiveness for negative intention at each grade confirms this supposition for all grades except the third. Thus, while there is a significant change in the evaluation of

negative intentions in both competitive and noncompetitive situations across the grades studied, there is also a significant tendency for children of all ages to punish negative intentions more in noncompetitive situations than in competitive situations.

Weiner and Peter (1973) also found that all subjects, regardless of age, punished negative intentions relatively more in the moral context than in the achievement context. The similarity of these results once again suggests that the subjects in the Weiner and Peter study were responding to the competitive/noncompetitive distinction inherent in their stories. The negative evaluation bias reported both in Weiner and Peter and the present study suggests that children of all ages are attributing more responsibility for negative intentions if the situation is noncompetitive. Perhaps the magnitude of the negative intentions are perceived as more negative if the situation is noncompetitive. That is, perhaps the subjects assumed the actor's intentions were relatively more negative if the situation was noncompetitive. Alternatively, perhaps negative intentions are considered stronger cues for internal attributions if the situation is noncompetitive.

Developmental changes in evaluation of positive intent as a function of the competitiveness of the situation. The grade x competitiveness simple interaction is significant in the positive intent condition, $F(6, 420) = 5.7, p < .001$ indicating that the effect of the competitiveness of the situation on the amount of reward given for positive intentions varies as a function of age. Figure 5 suggests the nature of this variation. Children in kindergarten, $p < .025$ and first grade, $p < .025$, reward intentions more in noncompetitive situations. In contrast, children in grades seven, $p < .005$, and nine, $p < .001$, reward positive intentions more if the situation is competitive. Further inspection of Figure 5

indicates that the differential developmental curves for positive intentions accounts for these differences. As discussed earlier, there is a significant linear trend in the rewards given for positive intentions in competitive situations. In contrast, there is no significant developmental trend in the rewards given for positive intentions in the noncompetitive situation. As children get older, they consider positive intentions as relatively stronger evaluative cues if the situation is competitive. Possibly trying hard at a competitive task is perceived as harder than trying hard at a noncompetitive task. Consequently, either because older children feel that trying in competitive situations is more valuable or because they feel trying in competitive situations is a stronger cue for internal attributions, they allocate more rewards for positive intentions in competitive situations.

Summary. Figure 5 illustrates the following findings: 1) Children in six of the seven grades punish negative intentions more in noncompetitive situations. 2) Children in four of the seven grades punish neutral intentions more in noncompetitive situations. 3) Children in grades seven and nine reward positive intentions less in noncompetitive situations. As a consequence of these evaluative biases, children allocate more punishment for noncompetitive situations in all grades, and allocate more rewards for competitive situations in at least grades seven and nine. Thus, as was the case with evaluations based on outcome, the differential rewards and punishments for the various levels of intention also produce a net result of the competitive situations receiving more reward on the average than noncompetitive situations. It should be noted, however, that the cause underlying this evaluative bias differs depending on whether one is considering outcome or intent as the independent variable. If one uses outcome as

the independent variable the major portion of the reward bias for competitive situations is due to the significantly greater reward across all grades for positive outcomes in competitive situations. (See Table 2). The significant competition \times outcome interaction, $F(1,210)=15.18$, $p < .001$, confirms this interpretation. In contrast, if one uses intention as the independent variable, then the major portion of this bias is due to the significantly greater punishment across all grades for negative and neutral intentions in noncompetitive situations (See Table 3).

Relative magnitude of the intent main effect as a function of age and the competitiveness of the situation. The F values for the intention \times competition simple interactions indicate that the magnitude of the intention main effect depends on the situation in the following grades: kindergarten, $F(2,420) = 15.96$, $p < .001$; first grade, $F(2,420) = 9.92$, $p < .001$; second grade $F(2,420) = 7.54$, $p < .001$. To interpret these effects, the resultant evaluations for intentions were calculated for competitive and noncompetitive situations within each grade. The dispersion of the evaluations of each level of intention from the grand mean is greater in noncompetitive situations for children in kindergarten, first, and second grades. Thus, children in these grades are using intention as an evaluative cue more in noncompetitive situations than in competitive situations. An analysis of the proportion of variance accounted for by the intention manipulation provides for the support for this suggestion. In grades kindergarten-second intentions account for more variance in noncompetitive situations than in competitive situations. (See Fig. 6). The fact that young children can use intentions in noncompetitive situations suggests that they should be able to use them in evaluating all situations. However, since competitive situations are probably new to most of the children in kindergarten, they may be unaware

Table 2

Means Associated with the Competitiveness x Outcome Interaction

	Outcome	
	Positive	Negative
Competitive	2.46	-1.64
Noncompetitive	1.49	-2.05

Table 3

Means Associated with the Competitiveness x Intention Interaction

	Intent		
	Positive	Neutral	Negative
Competitive	2.01	.54	-1.32
Noncompetitive	1.80	-.22	-2.44

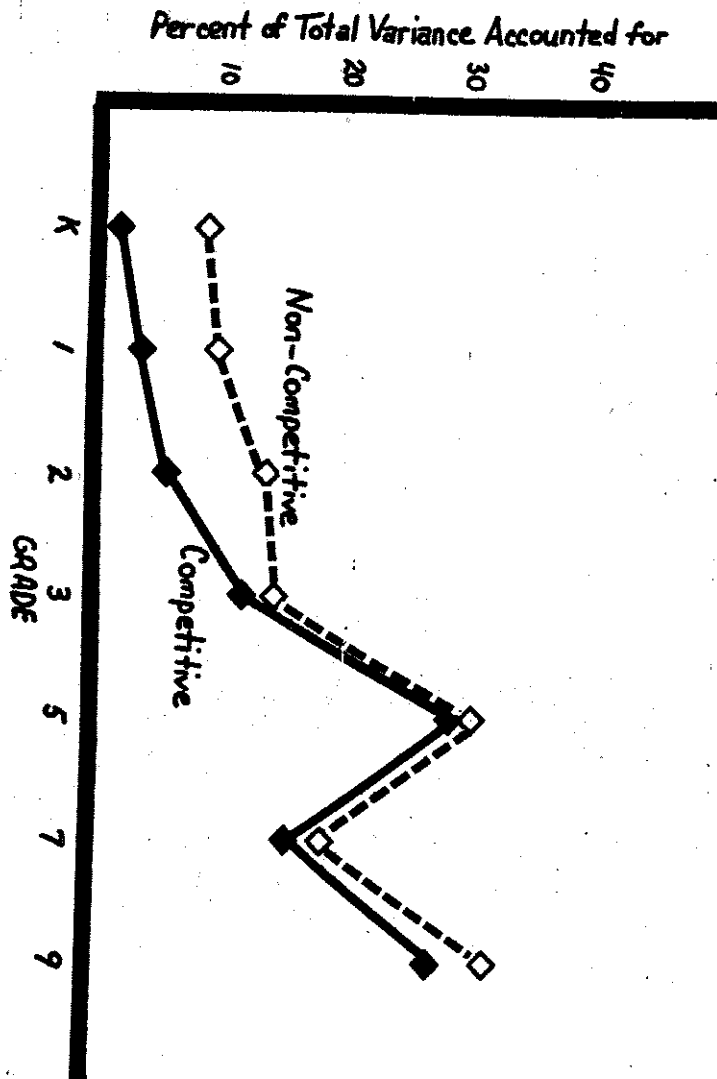


Figure 6. Relationship between Per Cent of Variance Accounted for by Intention, Grade, and the Competitiveness of the Situation

of the importance of intentions in these new situations. Also, parents and teachers may be so eager for the child to get a good start at school that they focus their attention on the child's outcomes rather than on his efforts. Whatever the cause, by the third grade, the children use weight equally in both situations.

Developmental changes in evaluation of intent as a function of the presence or absence of social interaction. Two predications were made regarding the effect of the social context on the development of evaluative judgments. It was predicted that negative intentions would come to be punished more in social situations while positive intentions would come to be rewarded more in asocial situations. But there were no significant interactions involving the three factors relevant to the predictions: namely, the social/asocial factor, the intent factor, and the grade factor. Contrary to the predictions, social context has no effect on developmental changes in the use of intent as an evaluative cue. Given the general lack of significant results involving the social context, it evidently is not a very influential dimension in people's evaluative judgments. Perhaps the strong competitive orientation present in this culture has dampened the importance of the social context. In line with this suggestion, it is interesting to note that the predictions regarding the development of intentions would have been confirmed if they had been made for competitive versus noncompetitive situations rather than social versus asocial situations. That is, negative intentions were punished more in noncompetitive situations, while positive intentions come to be rewarded more in competitive situations. Perhaps in a culture that stresses the importance of the social group, the predictions regarding the impact of the social context on the development of evaluative judgment would be confirmed.

It is also possible that the augmenting and discounting principles apply to asocial as well as to social situations. Often there are extrinsic rewards and punishments associated with asocial situations. For example, success in an asocial, competitive task such as individual achievement tasks can elicit parental praise and other tokens of reward; e.g., medals, good grades, peer recognition, etc. Similarly, failure in an individual achievement task often elicits parental and peer disapproval and bad grades. If the children realize that these extrinsic rewards and punishments are potential causal factors, then they might augment their estimate of the actor's negative intentions and discount their estimate of the actor's positive intentions in asocial as well as social situations.

Summary of the developmental changes in the relationship between intention and evaluation. The findings reported thus far suggest that the relationship between intention and evaluation depends on several factors: age, nature of the intentions, and the competitiveness of the situation. As predicted, there is a general trend toward the increasing importance of intention as a function of age. The magnitude of this trend is dependent on the levels of the intention and on whether the situation is competitive or not. Specifically, within competitive situations, there is a more rapid increase in the rewards given for positive intentions than in the punishment given for negative intentions. Also within competitive situations, there is a significant departure from linearity for both the positive intention and the negative intention developmental curves due in part to the shift in the curve occurring between grades five and seven.

Within noncompetitive situations, there is an increase in the importance of intentions only if the intentions are negative. Furthermore, the amount of punishment given for negative intentions in non-competitive situations is significantly greater than the amount of punishment given for negative intentions in competitive situations regardless of age of the children. As a consequence

of this evaluative bias, noncompetitive situations receive more punishment and less reward, on the average, than competitive situations.

In grades kindergarten-second, children use intention as an evaluative cue more in noncompetitive situations than in competitive situations. If it is assumed that an awareness of the importance of intention develops with age, then these data indicate that children acquire this awareness earlier in noncompetitive situations than in competitive situations.

Social/Asocial x Intent x Outcome Interaction

Table 1 indicates that the social context x intention x outcome interaction is significant, $F(2,420) = 25.78, p < .001$. The social context effects are significant for stories with a combination of positive intentions and negative outcomes, $F(1,420) = 30.36, p < .001$, and for stories with negative intentions and positive outcomes, $F(1,420) = 16.07, p < .001$. As shown in Figure 7, there is more punishment in social situations for negative intentions when outcomes are positive. It was predicted that negative intentions would be punished more if those intentions were social rather than asocial. This result supports the prediction but only when the negative intention is coupled with a positive outcome. Apparently, whether a person's negative intentions are social or asocial is irrelevant if his outcomes are also negative. In contrast, there is more reward in asocial situations for positive intentions when outcomes are negative. In accord with the predictions, subjects are discounting an actor's positive intentions if the situation is social. However, this result is significant only if the actor's outcomes are negative. The predicted social context effect is significant only when the intention and the outcome cues are discrepant and only when age is disregarded. Given these limitations on the accuracy of the predictions, a modification of the prediction seems appropriate. When the intent and the outcome cues are discrepant, children weight the negative cue (either negative intent or negative outcome) more if the situation is social rather than

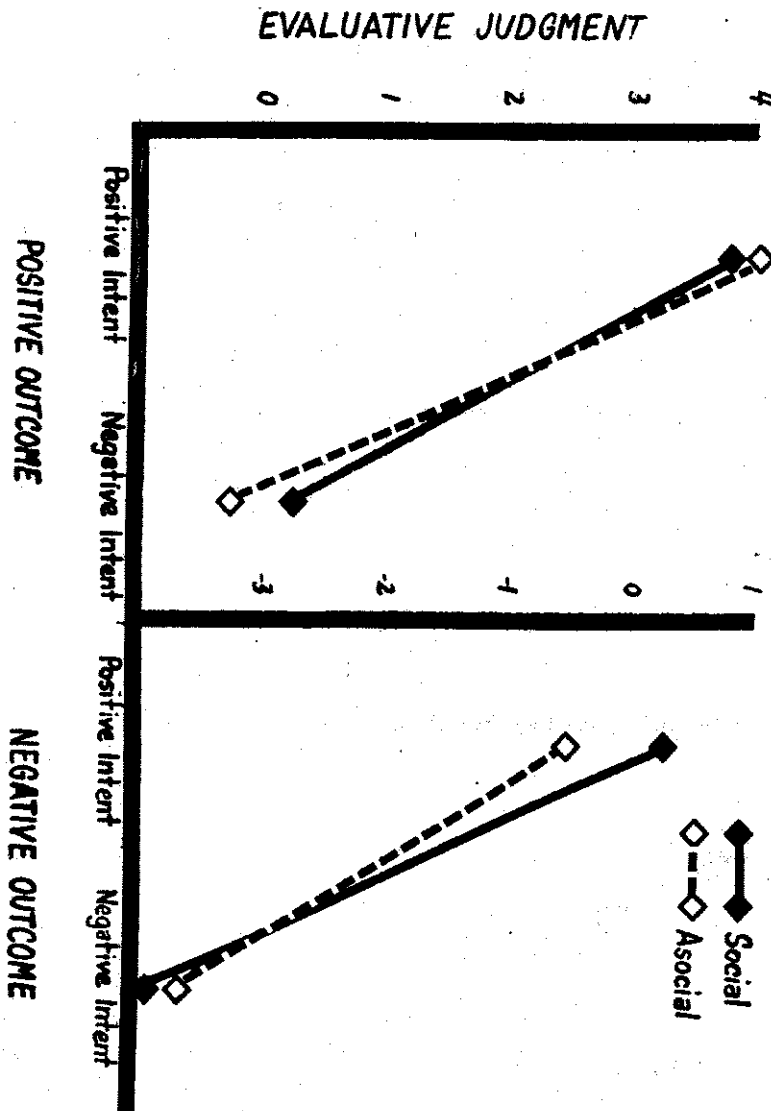


Figure 7. Relationship between Evaluative Judgments of Outcome, Intent, and the Social Context of the Situation

asocial. Apparently, children judge it to be worse if some other person either suffers or is intended to suffer from an individual's actions than if the individual himself is harmed by his own intentions or actions. This bias seems congruent with a prevalent attitude in this culture that an individual can do or think most anything he likes as long as he does not infringe on the rights of others. Consequently, when one of the two cues (intent or outcome) is negative, the augmenting principle operates on that cue only in social situations. As a result, the negative cue is perceived as more negative or worse when another individual's "rights" are involved. These data further suggest that children learn this evaluative bias early in life and use it fairly consistently throughout their school years.

Comparative Development of Intention and Outcome

General Trends

Thus far, the developmental changes in the use of intentions and outcomes as evaluative cues have been discussed independent of one another. It is also important to examine the weighting of each of these cues relative to the other and to examine the developmental changes in these relative weightings. Since the competitiveness of the situation affected the developmental patterns associated with the evaluation of both intent and outcome, comparisons of relative weighting will be made within each situation. Figure 8 represents the magnitude of evaluation associated with each level of intent and outcome for each grade and within competitive and noncompetitive situations. These graphs indicate that the difference between outcome and intent in the amount of reward or punishment is most extreme in grades kindergarten-second for competitive situations. Furthermore, given noncompetitive situations, the graphs indicate that there is little difference between outcome and intent in the magnitude of reward or punishment in grades kindergarten-second. These two results suggest that outcome is weighted more than intent in the earlier grades only in competitive situations. However, the estimates of the proportion of variance accounted for by outcome and

intent within competitive and noncompetitive situations provided a more sensitive test of these suggestions. These estimates are presented in Figure 9. On these curves also the difference between outcome and intent in the proportion of variance accounted for is greater in competitive situations. However, it is also apparent that outcome accounts for at least twice as much systematic variance as intent in grades kindergarten-second even in the noncompetitive situation. Thus, despite the small difference between outcome and intent in the amount of reward and punishment given in noncompetitive situations, there is considerably more agreement among the younger subjects on the magnitude of reward or punishment to be allocated to the two levels of outcome than to the three levels of intent. In conclusion, the data suggest that outcome is being weighted systematically more than intent in evaluative judgments in the early grades regardless of the competitiveness of the situation. However, the data also show that younger subjects are weighting intent relatively more in noncompetitive situations than in competitive situations and are weighting outcome relatively less in noncompetitive situations than in competitive situations. Consequently, the differential weighting of outcome relative to intent is less in noncompetitive situations. This pattern supports the earlier suggestion of a developmental lag in the decline in the importance of outcome and in the increase in the importance of intent in competitive situations. There are shifts in the relative importance of outcome and intent following the third grade. However, since these are not as systematic as the trends evidenced in grades kindergarten-third, each grade will be discussed individually.

At grade five, there is a crossover in the proportion of variance accounted for by intent and outcome in both competitive and noncompetitive situations. Consequently, intent is accounting for a greater proportion of variance than outcome in grade five. Within competitive situations, this crossover in the proportion of variance accounted for by intent and outcome is due to the continuing

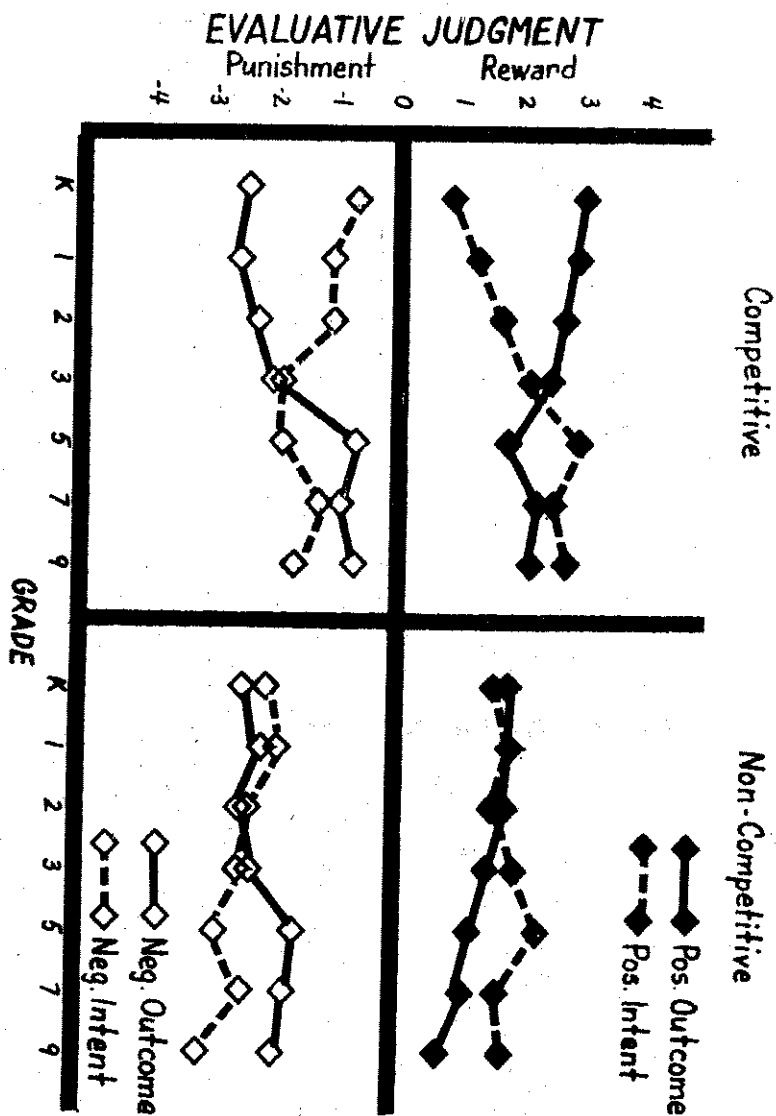


Figure 8. Relationship between Grade and the Competitiveness of the Situation and the Evaluative Judgments Associated with Outcome and Intent

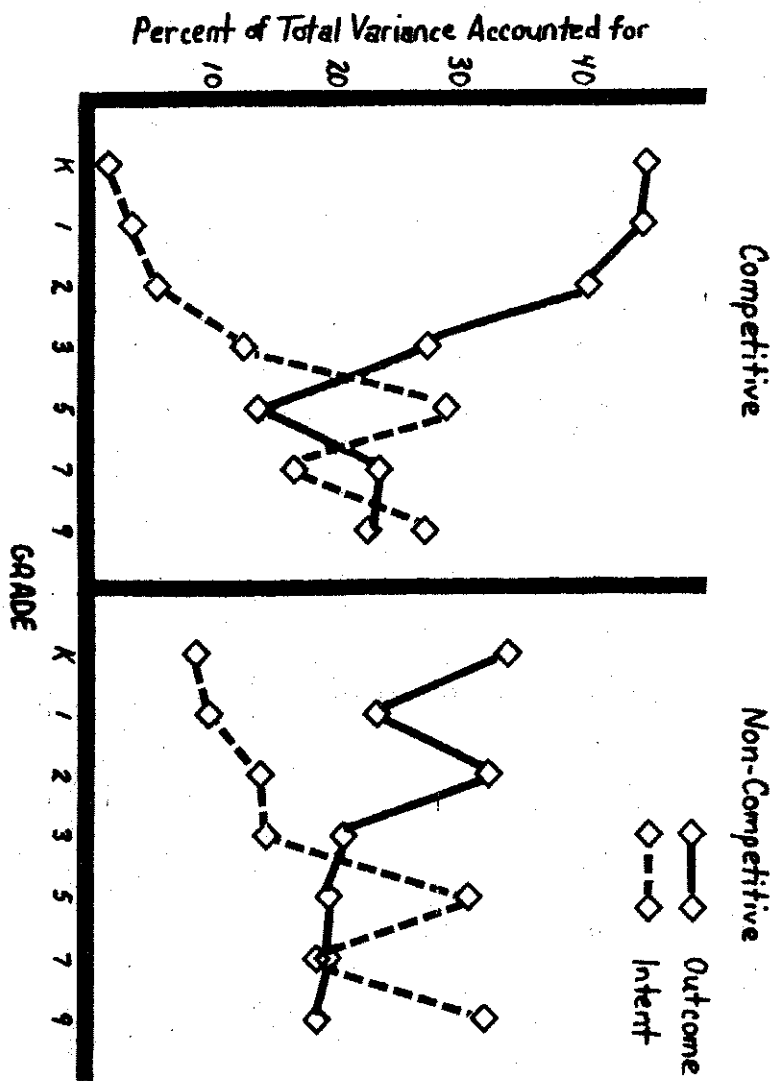


Figure 9. Relationship between Grade, the Competitiveness of the Situation, and the Per Cent of Variance Accounted for by Outcome and Intent

decrease in the importance of outcome and increase in the importance of intent. In contrast, within noncompetitive situations, the crossover is primarily due to the continuing trend for the increase in the importance of intent. The trend for the decreasing importance of outcome has leveled off prior to grade five.

Following grade five, there is a reversal in three of the four developmental curves. Within competitive situations, there is a reversal in the proportion of variance accounted for by both intent and outcome. As a consequence of these two shifts, outcome once again accounts for a larger proportion of the variance than intention. A similar reversal in the developmental trends was reported by Weiner and Peter (1973). The similarity of these data provides further support for the notion that the Weiner and Peter subjects were responding to the competitive/noncompetitive distinction inherent in their stories.

In noncompetitive situations, there is a reversal in the trend in the proportion of variance accounted for by intent. As a consequence of this drop, intent and outcome are accounting for equal proportions of the variance. There was no evidence of a similar drop in the importance of intent for the moral story used by Weiner and Peter (1973). However, their moral story was not exactly comparable to the noncompetitive stories used in the present study. Their moral story was both noncompetitive and social. Thus, one might suspect that the social context manipulation accounts for the discrepancy between the data in the two studies. But the social/asocial manipulation had no significant effects on the use of intent as an evaluative cue and consequently, is probably not responsible for this discrepancy. Based on the data and the methodologies of these two studies, this investigator cannot suggest any logical reason for this apparent discrepancy.

In comparison, the developmental trends for the amount of reward or punishment in mean evaluation (Figure 8) reveal a similar though less dramatic pattern.

In both the competitive and noncompetitive situations, there is a decrease at grade seven in the rewards and punishment for positive and negative intentions, respectively. In addition, there is a slight increase in the rewards and punishment given positive and negative outcomes in competitive situations. However, in contrast the graphs in Figure 8 indicate that intentions still receive more extreme evaluations than outcomes in both competitive and noncompetitive situations. This inconsistency suggests that, while the magnitude of the evaluations is more extreme when intentions are used as the independent variable, the variance among subjects in their evaluations is less when outcome is used as the independent variable. Thus, in conclusion, the evaluative judgments of seventh graders are characterized by a decline in the systematic weighting of intent in both competitive and noncompetitive situations.

At grade nine, there is once again a reversal in the proportion of variance accounted for by intent in both competitive and noncompetitive situations. In contrast, the proportion of variance accounted for by outcome remains constant. These data indicated there is an increase in the agreement among subjects regarding the magnitude of reward or punishment that should be allocated to the positive and negative intentions, respectively. Furthermore, Figure 8 indicates that the magnitude of reward and punishments has also increased. Thus, in grade nine, intentions are being weighted more than outcomes in both competitive and noncompetitive situations. There is no indication in the data reported by Weiner and Peter (1973) of a comparable re-emergence of the importance of intent. However, the age groupings used in their study may have masked this effect. They assigned their subjects to one of five age groups: four-six, seven-nine, ten-twelve, thirteen-fifteen, and sixteen-eighteen. Their fourth group included subjects in both the seventh and ninth grades. Thus, a comparison between the subjects in these two grades is impossible in the Weiner and Peter study.

CONCLUSION

General Developmental Similarities

Outcome is the more salient evaluative cue in the early grades and intent is the more salient evaluative cue in grades five, seven and nine. These results essentially replicate the data reported in a variety of studies in the field of moral judgment (Buchanan and Thompson, 1973; Costanzo et al., 1973; Piaget, 1965; and Weiner and Peter, 1973) and support the conclusion that the development of moral judgments reflects a composite of two opposite developmental trends: the increasing importance of intent and the decreasing importance of outcome as an evaluative cue. The data reported in the present study suggest that this general pattern exists for different kinds of evaluative judgments involving outcome and intent cues. If one assumes that a child's evaluative judgments reflect his assessment of the cause for a particular event or outcome then the data in the present study support Heider's, 1958, suggestion that young children make a direct causal link between an actor and his actions and thus evaluate the actor primarily on the objective consequences of his action. In contrast, the older children have learned that both subjective and objective factors must be considered in making causal judgments when they evaluate others. Consequently, their evaluative judgments reflect the influence of both the intentions of the actor and the outcomes associated with the actor's behavior.

However, even though this general pattern of the development of evaluative judgments characterizes the development in each of the situations investigated, children of the same age are not at the same developmental point in each of situational cells. That is, the relative importance of intent and outcome is different at each age depending on the situation the children are judging: specifically, both the grade at which the intent and outcome curves cross and the relative importance of intent initially vary depending on the situation.

there is a tendency for the situational cells in which the relative importance of intent is high initially also to evidence earlier crossover between the intent and outcome curves. This pattern of data suggest that the developmental processes associated with the increasing importance of intent begin earlier for noncompetitive situations than for competitive situations. While this study provides no data relevant to the point, it seems that the horizontal decalage could be due in part to differential experience with competitive and noncompetitive situations. For many of the children, entry into a school is their first major experience in evaluating other children within the competitive contexts portrayed in the stories in this study. In contrast, most of the children have had experience, either with their parents or with other peers, in evaluating others and in being evaluated by others within noncompetitive situations comparable to those portrayed in this study. Thus, it is reasonable to expect that an awareness of the importance of intentions as evaluative cues would develop later relatively within competitive situations.

There is one additional striking similarity in the developmental curves: the drop in the mean evaluation of and percent of variance accounted for by intention at grade seven. Three significant developmental events take place at approximately this age, any of which could produce a decrease in the importance of intentions:

a) The children have just entered junior high school. Therefore, the seventh grade marks a period of transition between two social systems in the lives of the children. That is, the children are moving from one social system, grade school, into a new social system, junior high school. It is possible that the teachers in junior high school are rewarding intentions of their students less than the teachers in elementary school. It is also possible that there is more pressure at home to succeed. Consequently, the decrease in the importance of intention in the students' evaluative judgments might

represent a readjustment of their evaluative criteria in response to the evaluative criteria operating in the new social system.

b) Most of the children of this age are entering adolescence. Therefore, the seventh grade marks a period of transition from childhood into adulthood. Many children experience periods of physical and social awkwardness during this transitional period. As a consequence of this awkwardness, they may experience a decrease in their sense of internal control over their own actions and may become especially aware of the impact of their actions on others. Consequently, the decrease in the importance of intentions in the students' evaluative judgments may represent a decrease in the child's belief in the relevance of intentions as evaluative cues.

c) Piaget (1965) suggests that children in the seventh grade are also entering a new cognitive stage. Therefore, the seventh grade also makes the transition between two stages of cognitive operations. Consequently, it is possible that the decrease in the importance of intention reflects some basic change in cognitive processing. Heider (1958) suggests that the final or most advanced level of attribution of responsibility is characterized by a decrease in the use of stated intent as an evaluative cue. Specifically, he suggests that observers operating at this advanced level of attribution realize that stated intentions can be externally as well as internally controlled. As a result, observers attribute responsibility for the consequences of an actor's behavior to the actor only if his/her intentions are internally controlled. Since observers operating at this stage are less willing to attribute responsibility to the actor, they should also be less willing to allocate either extreme rewards or punishments to actors. Perhaps the decrease in the importance of intention reflects a child's acquisition of this advanced level of attribution.

Evaluative Dissimilarities as a Function of Situation

General situational dissimilarities. On the average, competitive situations

are rewarded while noncompetitive situations are punished. A similar finding is reported in Weiner and Peter (1973) who found achievement stories were rewarded while moral stories were punished.

The evaluative biases associated with the competitiveness of the situation suggest that different behavior control mechanisms may be used to maintain competitive as compared to noncompetitive behavior. Specifically, the data indicate that children use reward to maintain positive competitive behavior. In contrast, children use the threat of punishment to maintain positive noncompetitive behavior. Furthermore, the data indicate that children can expect to receive more rewards on the average for their competitive endeavors regardless of actual outcome. In contrast, on the average, they can expect to have their noncompetitive endeavors responded to with indifference or punishment. Clearly, these expectancies create a situation in which there are more incentives for competitive behaviors than for noncompetitive behaviors. If it can be assumed that incentives are a significant mediator of behavior, then one obvious consequence of these differential expectancies would be a differential preference for competitive behaviors among the children holding these expectancies. Evidence gathered by Madsen and his colleagues (1970, 1971, 1972) indicates that this is, indeed, the case. In repeated studies, they have documented the overwhelming tendency for urban American children to respond to an ambiguous situation competitively rather than cooperatively.

Outcome Dissimilarities. The differential response to the various levels of outcome within competitive and noncompetitive situations is responsible in part for the evaluative biases associated with the competitiveness of the situation. As predicted, positive outcomes receive more reward in competitive situations. In contrast, negative outcomes come to be punished in competitive situations, also as predicted, less than in noncompetitive situations.

If one assumes that evaluative judgments reflect the subjects' assessment

of causality, then older children appear to attribute relatively more responsibility to the actor for positive outcomes in competitive situations, and for negative outcomes in noncompetitive situations. Kelly (1967) suggested that an individual is judged to be responsible for an event or to have caused a specific outcome to the extent that his outcomes in that situation are unique or not in consensus with the outcomes of other actors in the same situation. I suggested that positive outcomes are relatively unique if the situation is competitive while negative outcomes are relatively unique if the situation is noncompetitive. If this is true, then the differential reward value for outcome reflects a maturation of the causal attributional processes. That is, the data suggest that as children get older, they continue to use outcome as an evaluative cue when the actors' outcomes are deviant and, thus, when the actors' outcomes provide a cue for a internal causal attribution. However, when the outcome is not deviant and thus does not provide the child with a cue for an internal causal attribution, then, as children get older, they tend to discontinue the use of the outcome information as an evaluative cue.

Alternatively, it is possible that the differential importance of positive versus negative outcomes across the two situations is due to the subjective assessments of task difficulty in the two situations. It is possible that the task is perceived as more difficult if the situation is competitive rather than noncompetitive. Using task difficulty as the mediating variable, there are four possible explanations for these results: two explanations accounting for the greater rewards given to positive outcomes in competitive situations, and two explanations accounting for the greater punishment given to negative outcomes in noncompetitive situations.

First, Atkinson (1964) suggested that the greater the difficulty of the task, the lower the expectancy for success. Furthermore, he suggested that the lower the expectancy for success, the greater the value of that success. If the task

is seen as more difficult in the competitive situation, then positive outcomes in competitive situations should be valued more than positive outcomes in non-competitive situations. Consequently, positive outcomes would be rewarded more in competitive situations than in noncompetitive situations.

Similarly, Atkinson's value x expectancy model suggests that the greater the expectancy of failure, the less negative the value of the failure. If the task is seen as more difficult in the competitive situation, then failure is seen as more likely in competitive situations than in noncompetitive situations. Consequently, there should be more punishment for negative outcomes in noncompetitive situations than in competitive situations. However, task difficulty in conjunction with outcome also provides a cue for internal attribution. Frieze and Weiner (1971) reported that success at a difficult task is more likely to lead to internal attributions than success at an easy task. Consequently, it is also possible that the greater reward for positive outcomes and the continuing importance of positive outcome as an evaluative cue in competitive situations reflects an awareness on the part of the child that the actor is more likely to be responsible for the outcome in the competitive situation and thus is worthy of more reward.

Likewise, Frieze and Weiner (1971) reported that failure at an easy task is more likely to be attributed to the actor than failure at a difficult task. Therefore, one would expect adults to punish an actor for negative outcomes more if the situation is noncompetitive rather than competitive. Further, Weiner and Kukla (1970) provided data that subjects are especially punishing of negative outcomes at easy tasks due to a bias to punish actors who have failed to use their ability.

In addition to the differential reward value for outcomes, there is also a differential rate in the decline of the importance of outcome depending both on the level of the outcome and on whether the situation being judged is com-

petitive or noncompetitive. As predicted, if a competitive situation is being judged, then the developmental decrease in the importance of negative outcomes is steeper than the developmental decrease in the importance of positive outcomes. In contrast, as predicted, if the situation being judged is noncompetitive, then the developmental decrease in the importance of positive outcome is steeper than the developmental decrease in the importance of negative outcomes.

Situational dissimilarities in the evaluation of intent. There is also a distinction between competitive and noncompetitive situations in the evaluations associated with intent which could also account for the more general reward and punishment bias. It is clear that negative and neutral intentions are punished more in noncompetitive situations in all grades. In contrast, in grades five, seven, and nine, neutral and positive intentions are rewarded more in competitive situations. If one assumes that evaluative judgments reflect the subjects' appraisal of causality, then attribution theory provides a plausible explanation for these differential reward and punishment patterns. Two cues commonly used in assessing causality are task difficulty (Weiner et al., 1971) and the consensus of the individual's attitudes or behavior in a given situation (Kelley, 1967).

Heider (1958) suggests that the naive individual assumes that it takes more effort to succeed at a difficult task than at an easy task. If subjects perceive the competitive task as more difficult, then, as a consequence of the relationship between task difficulty and perceived effort, the subjects should assume that the actor put forth more effort in the competitive situation than in the noncompetitive situation. Consequently, the subjects would reward positive intentions more in competitive situations than in noncompetitive situations. This is, indeed, the case in grades five - nine. However, in grades kindergarten and first, the subjects reward positive intentions more in noncom-

petitive situations. As mentioned earlier, the awareness of the importance of intentions as evaluative cues develops earlier for noncompetitive situations than for competitive situations. The results in these two early grades reflect this differential rate in the development of the awareness of the importance of intentions.

Also as a consequence of the relationship between task difficulty and perceived effort, one would expect the subjects to respond to the negative intent cue differently depending on whether the situation was competitive or noncompetitive. If a task is perceived as difficult, then the negative intent effort cue is somewhat ambiguous. That is, since the task is perceived as difficult, there may be external factors (Kelley, 1972) which can account for the lack of effort. For example, it is possible that the actor perceives the task as too difficult. Consequently, his lack of effort may reflect a rational response to external constraints rather than a negative internal quality of the individual, for example, laziness. In contrast, if the task is perceived as easy and clearly within the ability range of the actor, then the lack of effort cue cannot be discounted as readily (Kelley, 1972). Thus, the negative effort cue would be more likely to elicit a negative, internal attribution if the task is perceived as easy. Consequently, if noncompetitive situations are perceived as easier, then negative intentions will elicit more attributions of actor responsibility and will evoke more punishment in noncompetitive than in competitive situations.

The differential reward value between competitive and noncompetitive situations for both intentions and outcomes has produced an interesting psychological side effect. Since noncompetitive, negative intentions are punished severely, it is clearly to a child's advantage not to have or not to express negative intentions in noncompetitive situations. Since noncompetitive, positive intentions are rewarded, then perhaps the expression of positive intentions is to the child's advantage. However, negative outcomes are punished in noncompetitive sit-

uations regardless of the child's intentions. Thus, if the child expresses an intention to do something good but, inadvertently does something "bad," he is likely to be punished. Furthermore, given the size and, at times, apparent awkwardness of children, the chance of inadvertently doing something wrong is probably fairly high. What then should the child do? If he expresses negative intentions, he can expect to be punished. If he expresses positive intentions, there is still a reasonable chance he'll be punished. Thus, noncompetitive situations create a double bind for children. That is, whether they have a negative or positive orientation toward these situations, they perceive that there is a chance they'll be punished. The safest course, then, is to have neutral intentions or to avoid noncompetitive situations unless one can be sure that one's intentions and efforts will produce positive consequences.

In contrast, competitive situations do not seem to pose a conflict for the children. Negative efforts are punished and, therefore, to be avoided. However, since they are not punished as severely as negative intentions in noncompetitive situations, being lazy is not as aversive as expressing negative intentions. Similar to noncompetitive situations, positive efforts are rewarded. However, in contrast to noncompetitive situations, negative outcomes receive minimal punishments in grades five - nine. Consequently, there is little penalty for trying and failing in competitive situations. In addition, there is a high payoff for succeeding. Thus, while children should avoid noncompetitive situations, they should be eager to enter into competitive situations.

Significant Use of Both Intent and Outcome Cues by All Ages.

All age groups are using both the intention and the outcome cue in forming their evaluative judgments. In addition, all age groups are modifying their use of these cues depending on the competitiveness of the situation being evaluated. There is no evidence to support either the notion that younger children evaluate solely on the basis of outcome or the notion that older children rely primarily

on the intention cue in forming their evaluative judgments. These data are in accordance with several more recent studies using quantitative methodologies, (Buchanan and Thompson, 1973; Costanzo et al., 1973; Hebble, 1971; and Weiner and Peter, 1973). The earlier force-choice methodology used by Piaget (1965) and others (Bandura and McDonald, 1963, and Cowan et al., 1969) did not provide a mechanism for assessing the relative weighting of various cues in forming evaluative judgments. Consequently, if a child weighted outcome more than intent, it would appear that he was not using intent in forming his judgments; conversely, if he weighted intent more than outcome, then it would appear that he was not using outcome in forming his judgments. The present study indicates that younger children weighted outcome more than intent in their evaluative judgments. In contrast, the older children weighted intent more than outcome. Thus, had a forced-choice methodology been used in the present study, the complexity of children's judgments would have been masked as it was in these earlier studies. The quantitative methodology used provides a finer tool for assessing children's evaluative judgments.

Comparative Influence of the Situational Factors

The social context of the story had relatively little influence on the children's judgments. Inspection of Table I reveals more significant effects involving the competitiveness factor in contrast with only four significant effects involving the social context factor. Furthermore, of the four significant interactions involving the social context, only one also involved grade and three also included the competitiveness factor. This general unimportance of the social context factor was unexpected. Specific predictions were made regarding the impact of the social context factor on children's evaluations of intent. These predictions were not supported by any of the developmental data. These predictions did receive some support, but only when grade is disregarded and when the intention and the outcome cue are discrepant. Specifically, the social

context x intent x outcome interaction indicated that negative intentions are punished more in social situations if the outcome in that situation is positive, and that positive intentions are rewarded more in asocial situations only if the outcome is negative. This discrepancy in the evaluative importance between the two situational factors may reflect a cultural phenomenon. The social context cue would probably be a more important evaluative factor in a culture that stressed the group rather than the individual.

Implications of the Relative Importance of the Competitiveness Factor for an Understanding of the Weiner and Peter (1973) Results

There has been repeated evidence of comparability between the competitiveness factor in the present study and the motive-system factor in the Weiner and Peter study. A brief summary of this evidence follows:

<u>Weiner and Peter</u>	<u>Present Study</u>
1. Achievement stories rewarded while moral stories punished.	Competitive stories rewarded while noncompetitive stories punished.
2. Positive outcomes are rewarded more in achievement situations.	Positive outcomes are rewarded more in competitive situations.
3. a) Increase in the rewards for positive outcomes given achievement situations between the ages of 12 and 13. b) No similar increase in the rewards for positive outcomes given moral situations.	a) Increase in the rewards for positive outcomes given competitive situations at grade seven. b) No similar increase in the rewards for positive outcomes given noncompetitive situations.
4. Earlier decline in the evaluative responses to moral outcomes.	Earlier decline in the evaluative responses to noncompetitive outcomes.
5. Negative intentions are punished more in moral situations.	Negative intentions are punished more in noncompetitive situations.
6. Sharp decline in the punishment for negative intentions in achievement situations between ages of 12 and 13.	Sharp decline in the punishment for negative intentions in competitive situations by grade seven.

The finding that the social context factor is relatively unimportant provides one final piece of evidence supporting the notion that the subjects for the Weiner and Peter (1973) study were responding to the competitiveness of the situation. Perhaps, for the naive evaluator, whether a situation is competitive or noncompetitive is synonymous with whether a situation is perceived as "achievement" or "moral." Alternatively, perhaps, the distinction between achievement and moral situations is somewhat arbitrary. Subjects may respond to all evaluative tasks in a manner suggested by attribution theory. That is, they may use all cues available in assessing the actor's responsibility for the consequences of his actions. In turn, these attributions may influence the subject's evaluative response to the actor. The data in the present study suggest that this is the case. However, whether evaluative responses are mediated by attributions or not, conceptualizing evaluative situations in terms of the competitiveness of the stories rather than in terms of motive system aroused by the stories provides investigators with greater theoretical and empirical predictive power.

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