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Causal Attribution and the Role of Situational
Competitiveness in the Development of Children's
Evaluative Judgments

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This paper outlines theoretical reasons and provides empirical support linking attribution of causation and the development of children's evaluative judgments. Previous studies indicate that an actor's outcome and his intent are two primary factors influencing children's evaluative judgments. Repeatedly, findings indicate that intent increases while outcome decreases in importance as a function of increasing age. However, a recent study by Weiner and Peter (1973) suggests that outcome continues to be an important evaluative cue in some situations. Can we predict when outcome will be used? Yes, if we assume that the increasing importance of intent reflects a more basic developmental process; namely, the increasing ability of children to form sophisticated attributions of responsibility. If we assume that evaluative judgments reflect a child's attribution of responsibility, then we would expect intent to increase in importance. Furthermore, we can use the work of Kelley to predict in which situations outcome will continue to be important and in which situations outcome will decline in importance as a function of age. Attribution theory suggests a link between the competitiveness of the situation and the use of outcome as an evaluative cue. Kelley (1971) suggested that a person is perceived to be responsible for the consequences of his action to the extent that these consequences are atypical in that situation. Since success at a competitive task implies that most other actors did not succeed, positive outcomes are the atypical outcomes in competitive situations and should be attributed to the individual. Consequently, if attribution of responsibility influences evaluative judgments and if the ability to make attributions of responsibility improves with age then, positive outcomes should remain important evaluative cues in competitive situations, while negative outcomes should decrease in importance in these situations

as a function of increasing age. In contrast, due to the nature of noncompetitive situations, success is the more typical outcome and failure is the more atypical outcome. Thus, in noncompetitive situations negative outcomes should remain important evaluative cues while positive outcomes should decrease in importance as a function of age. The goal of this paper is to test these predictions regarding the influence of one situational cue, competitiveness, on children's evaluation of outcome.

Subjects and Procedure: 224 Caucasian children between the ages of 5 and 14 rewarded or punished the actor in 24 different scenarios. These stories varied on the two situational dimensions: competitiveness (competitive or non-competitive) and social context (social or asocial); and on two evaluative cue dimensions: outcome (positive or negative) and intention (positive, neutral, or negative). (Statistical tests suggested that collapsing across the intent and social context variations did not alter systematically the relationships between the competitiveness manipulation and the development of children's evaluative response to variations on outcome. Consequently, for purposes of this presentation, the intent and social context cue will not be discussed).

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 non-competitive 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 non-competitive 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.

The actor's intention referred to both the actor's intention regarding the consequences of his behavior and his efforts to implement this intention. 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. Outcome was defined as positive if the actor's behavior led to success at a competitive event or to beneficial consequences in a non-competitive situation. An outcome was defined as negative if the actor's behavior led to failure or detrimental consequences. Failure was defined as not achieving success or victory.

To increase the likelihood of maximal subject attention, 12 different stories were used. To control for the possibility that the results in a given condition would be an artifact of the particular theme for that cell, two sets of stories were used. Each set was composed of the same 12 story themes. However, a particular theme occurred in a different factorial combination of the outcome x intention dimensions in each set.

Results and Discussion: A six factor (Grade, G; Sex, S; Competitiveness, C; Social Context, A; Intent, I; and Outcome, O) mixed-design analysis of variance revealed two significant effects involving the interaction of one of the situational cue and the outcome factor: $C \times O - F(1,210)=15.18, p < .001$; $G \times C \times O - F(6,210)=3.04, p < .01$. The interactions involving the social context and outcome factors were not significant: $S \times O - F(1, 210) < 1.00, G \times S \times O - F(6,210) = 1.31, p > .05$.

Since the $C \times O$ interaction is superceded by the $G \times C \times O$ interaction, I will focus my discussion on the latter. The means associated with the $G \times C \times O$ interaction are depicted in Fig. 1. Inspection of Fig. 1 and subsequent simple effects tests suggest the following conclusions regarding the effects of the competitiveness of the situation on children's use of outcome as a evaluative cue. Actors in competitive situations receive more reward for positive outcomes regardless of the age of the subjects. In contrast, whether an actor is punished more for negative outcomes in competitive or non-competitive situations depends on the age of the subjects. Specifically, children in kindergarten, first, second and third grades punish negative outcomes equally in competitive and non-competitive situations while children in grades 5, 7, and 9 punish negative

outcomes more in non-competitive situations.

Furthermore, trend analyses supported the prediction regarding the effects of the competitiveness cue on the developmental patterns associated with changes in children's use of outcome as an evaluative cue. First linear trends for the G effects were tested on each of 4 $C \times O$ developmental curves. Three of the four were significant: G_{lin} for positive outcomes in competitive situations $F(1,210)=12.5, p < .001$; G_{lin} for positive outcomes in non-competitive situations $F(1,210)=18.2, p < .001$; and G_{lin} for negative outcomes in competitive situations $F(1,210)=72.3, p < .001$. Since the $G_{lin} F$ for negative outcomes in the non-competitive situations was not significant, while the $G_{lin} F$ for positive outcomes in non-competitive situations was, we can conclude that there was a differential rate in the decrease in the importance of outcomes as an evaluative cue depending on the valence of the outcome. That is, for evaluating non-competitive situations, positive outcomes declined in importance while negative outcomes remained equally important with increasing age. Recall my earlier suggestion that negative outcomes are more atypical in non-competitive situations. Consequently, I predicted that negative outcomes would be more likely to lead to an internal causal attribution and thus would elicit more extreme evaluative responses than positive outcomes. Furthermore, since I assumed that this evaluative bias would be characteristic of the mature evaluator, I predicted that in non-competitive situations negative outcomes would remain important evaluative cues while positive outcomes would decline in importance as a function of age. The data confirmed these predictions.

To test the predictions regarding the relative importance of outcome in competitive situations, one additional test was needed. Since the developmental linear trends were significant for both positive and negative outcomes it was necessary to calculate the $G_{lin} \times O$ interaction F value in order to test for differential rates of change. This test supported the prediction regarding the differential rate of decline in the use of outcome as an evaluative cue for competitive situations, $F(1,210) = 12.4, p < .001$. The rate of decline in the use of negative outcome information was more rapid than the rate of decline in the use of positive outcome information. I suggested earlier that positive

outcomes are more atypical in competitive situations than are negative outcomes. Consequently, I predicted that positive outcomes would be more likely to lead to an internal causal attribution and thus would elicit more rewards than negative outcomes would elicit punishment. Once again, since this evaluative bias depends on the evaluator's cognitive maturity, it was predicted that in competitive situations positive outcomes would remain important evaluative cues while negative outcomes would decline in importance. Thus, negative outcomes would decline in importance more rapidly and to a greater extent than positive outcomes. The data confirmed this prediction.

Summary. In this study, there was a differential rate of decline in the use of outcome information in both competitive and non-competitive situations. However, as predicted, the exact nature of this differential rate varied depending on the competitiveness of the situation. Specifically, positive outcomes decreased in importance to a greater extent than did negative outcomes in non-competitive situations, while negative outcomes decreased in importance to a greater extent than did positive outcomes in the competitive situations. Consequently, by grade 9, given negative outcomes, children were using outcome as an evaluative cue relatively more in the non-competitive situation and, given positive outcomes, were using outcome as an evaluative cue relatively more in competitive situations. More specifically, for example, older children punished Mary more if she made a mess than if she did poorly on an exam. In contrast, the older children rewarded Mary more if she did well on an exam than if she did a nice job of watering the lawn. In addition, younger as well as older children rewarded Mary more for succeeding at a competitive task than at a non-competitive task. That is positive outcome elicited more rewards in competitive situations at all ages.

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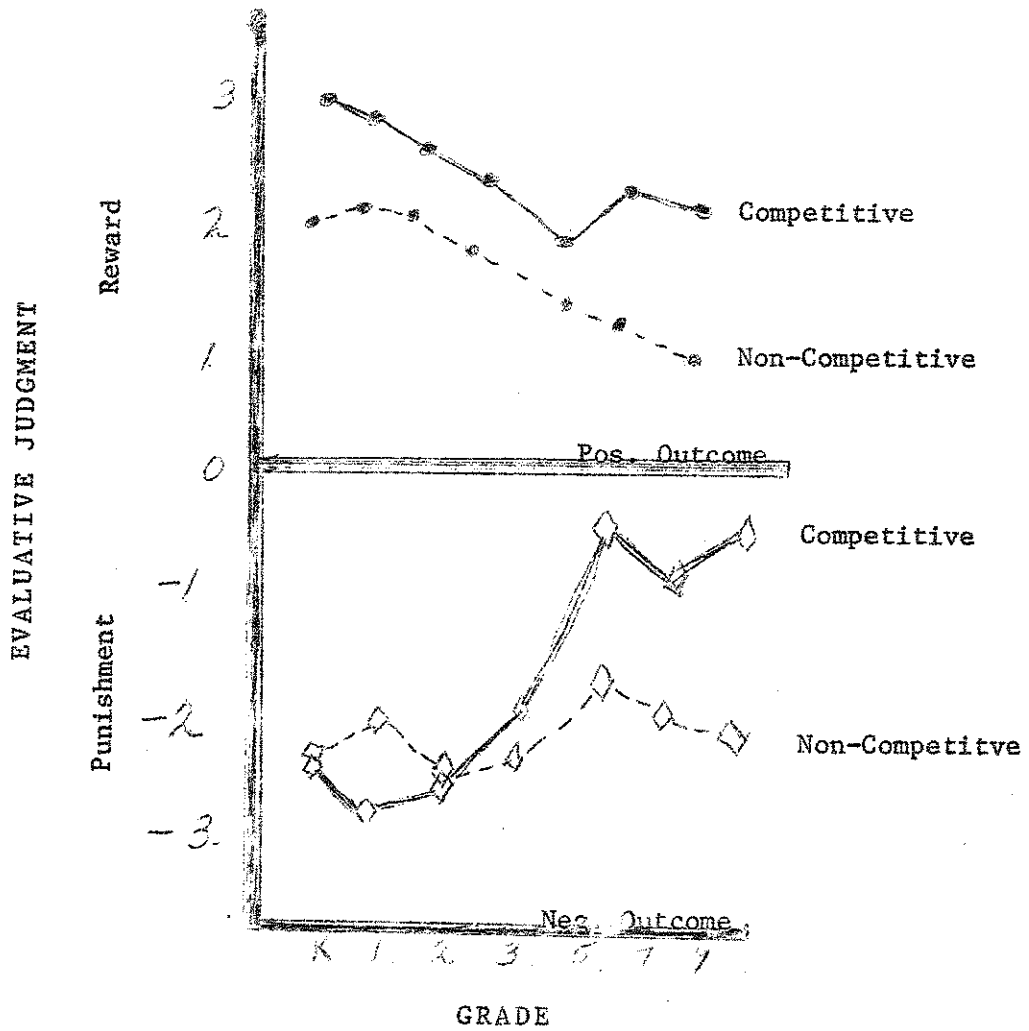


Figure 1. Relationship between Evaluative Judgments, Grade, Outcome, and the Competitiveness of the Situation