Mood, Social Goals and Children's Outcome Expectancies

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MOOD, SOCIAL GOALS, AND CHILDREN'S OUTCOME EXPECTANCIES

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Past research suggests that emotions, arousal, and goals affect how children reason in social situations, but, thus far, there has been very little research on how these variables interact. It has been hypothesized that emotion could affect any area of social information processing directly, but it has also been hypothesized that emotion might have an indirect effect on social information processing. Therefore, a primary hypothesis of the current study was whether emotion influences each step of social information processing directly or whether emotion influences social information processing indirectly by first influencing goal orientations which, in turn, influence the other areas of social information processing. Because there is evidence that aggressive children's social information processing may be disrupted by negative mood, I also examined whether mood affects aggressive children's social information processing more than that of nonaggressive children.

The participants were 480 ungraded primary children enrolled in five different elementary schools from two school districts. Participants were tested in two sessions on different days. The first session consisted of sociometric testing. The second session consisted of a mood induction procedure, in which children were induced to feel either angry, happy, or neutral, followed by the response evaluation interview. Three
provocation vignettes were presented, and after each vignette, competent, hostile, and inept responses were presented one at a time. For each type of response, children were asked to evaluate the instrumental and social relational consequences as well as the ease/difficulty of performing the response.

Results from the current study provide further support for the hypothesis that emotion affects social information processing indirectly by first influencing children's goals which then affect social information processing. It also provides evidence that children's goals for certain situations are actually better predictors of children's self-efficacy beliefs than are children's social statuses. Our study also found results similar to past research that suggested rejected-aggressive children are more sensitive to negative arousal than are accepted-nonaggressive children.

The current study did not include the negative emotions sadness and fear. Like anger, sadness and fear are also states of negative arousal; however they could induce a different set of goals and self-efficacy beliefs than does anger. Hence, more research that includes the study of sadness and fear is needed. The current study revealed an indirect influence of emotion on response evaluations. However, nothing is known about the effect of emotion on the other steps of social information processing, such as encoding of information, attribution of intent and response selection. It could be, that, rather than indirectly affecting encoding and attribution of intent, emotion could directly affect how children encode information from their environment and the attribution of their peers' intentions. Because little is known about the effect of emotion on these steps of social information processing, future research should investigate this area further.
Chapter I

Introduction

Peer interactions contribute uniquely to the social and cognitive development of children. Interactions with peers are important because they provide a setting in which children have the opportunity to learn social and cognitive skills. Cognitive developmental theorists recognized the peer group as an important context for development. Piaget (1965) suggested that interactions with friends promote the decline of egocentrism and the development of a moral view based on equality, reciprocity and equity. He maintained that the inequality of power between children and adults tended to promote egocentrism and a morality based on unilateral respect for authority. Interactions with peers, who have equal status and power, on the other hand, tend to promote solidarity and ideals reflecting equality. Thus, in Piaget's view, peers contribute uniquely to cognitive and moral development.

Vygotsky (1978) also suggested that play and peer interactions are important to a child's development. As children begin to socialize with other children, rules of play begin to emerge. Play with other children places constant demands on the child to inhibit his/her own wants and desires in service of play continuing. The child is continually faced with the decision to play by the rules of the game or behave the way he/she really wants. Thus, play helps children learn to want to follow rules, which is a lesson that will help the child adjust in other walks of life. For example, in classrooms, children will be required to follow rules that do not correspond to their personal desires. Social play is an important context in which children learn to inhibit personal desires for the good of the group (Vygotsky, 1978).
According to Hartup (1978; 1992), peer relations are crucial to children's socialization. Peer interactions help children learn to regulate their aggressive tendencies. For example, the normal rough and tumble play in which children engage provides an environment that helps them learn how to socially regulate their aggressive behaviors. Peer interactions have also been linked to higher social intelligence and higher moral judgment. Children who are more socially active and popular also are more competent during social interactions and reason at higher moral judgment levels. Peer acceptance level also predicts developmental outcomes in adolescents. For example, delinquency rates are higher among adolescents with low childhood acceptance rates by their peers (Hartup, 1978; 1992).

Parker and Gottman (1989) have hypothesized that children's friendship interactions provide a context in which children work on developmentally important social and emotional tasks. For example, in early childhood, children make a concerted effort to maintain coordinated play with their friends. Maintaining coordinated play is a very difficult task involving clear communication, management of conflicts, and perspective taking. Parker and Gottman also suggest that coordinated play is crucial in learning to regulate emotion. When involved in coordinated play, children inhibit personal desires and accept being led by others. Children also learn to tolerate personal frustrations, anger, and fear in order to maintain organized play. As children enter middle childhood, Parker and Gottman suggest that the major developmental task is learning to regulate emotion and to understand the norms of the peer group. They contend that gossip with friends provides children with this salient information. By interacting with peers, children are given an opportunity to learn not only how they should respond
emotionally but also how their emotional reactions affect their peers (Parker & Gottman, 1989).

These theoretical views on the importance of peer relations have tended to be supported by the empirical literature. For example, Parker and Asher (1987) reviewed the existing literature on peer relations and later adjustment, focusing on how acceptance level and aggressive and shy/withdrawn social statuses predict dropping out of school, criminality, and psychopathology. They found strong evidence linking lower peer acceptance levels in childhood with higher adolescent dropout rates. Children with high levels of aggression also were more likely to dropout of school as adolescents. Low peer acceptance and high aggression levels also were linked to juvenile and adult criminality. Shy children were not more likely to become juvenile or adult criminals. For psychopathology, very little predictive power exists because results in this area are inconsistent. However, research (e.g., Hartup, 1978; 1992) clearly demonstrates that peer acceptance levels and aggression are important predictors of dropping out of school and juvenile and adult criminality. Because peer relations help shape cognitive and social development, it is important to study them. Empirical research (e.g., Hartup, 1978; 1992; Parker & Asher, 1987) has demonstrated that peer relations also predict later adjustment or adjustment problems. Research on peer relations could lead to the design of interventions for children who are not as accepted by their peers. For example, rejected and aggressive children would greatly benefit from research that helps us understand their lack of acceptance by their peers.
Measuring Aspects of Children's Peer Relations: Sociometric Techniques

Sociometric measures are designed to determine how children are viewed by the peer group as a whole. These techniques are an integral component of research on children's peer relations. According to Asher and Hymel (1981), there are two major types of sociometric assessment—nomination measures and rating-scale measures. The peer-nomination assessment requires children to nominate a specified number of classmates who fit certain criteria. For example, a child might be asked to nominate three classmates he/she likes the best and three classmates he/she likes the least. No matter what the specified criteria, each child's score is the number of nominations received from peers for each category. For elementary school children, both positive and negative nominations have been shown to be very stable (Asher & Hymel, 1981).

The rating-scale assessment technique requires children to rate each classmate in relation to a specific criterion. For example, children are presented with a list of their classmates, and then they are asked to rate, on a scale from one ("not much") to five ("the most"), how much they like to play with each classmate. In order to help children understand the meaning of the numbers, a visual aide with appropriate size bars and faces accompanies the numbers. Frowns are paired with the numbers one and two, and smiles are paired with the numbers four and five. Children's scores on this technique are the average ratings received from classmates; scores usually are standardized within class in order to compare across classes. A variation of this method was developed in order to test preschool age children. Instead of a five-point rating scale, a three-point rating scale is used. Since preschool children usually cannot read, they are presented with pictures of all the children in their class rather than the names of their classmates. Unlike the peer-
nomination technique, rating-scale measures provide information about how children think about each classmate. The test-retest reliability of the rating-scale measure is even higher than that of nomination measures. Rating-scale and nomination assessments also allow researchers to identify accepted and rejected children (Asher & Hymel, 1981).

Coie, Dodge, and Coppotelli (1982) pointed out that using only positive nominations to classify a child as accepted or rejected can lead to errors. If the accepted category is based on the number of like most nominations, rejected children would include children who are actively disliked and children who are not especially liked or disliked. Because of this problem, it is important to assess the extent to which children are disliked. Nominations for "like least" (negative nominations) allow the researcher to discriminate between actively rejected children and children who are neglected by peers who often have average levels of overall peer acceptance. Coie et al. (1982) also suggest that negative nominations should be used in order to study controversial children. These children receive high scores on both the like most and like least nominations. Another benefit of using both like and dislike scores is that they can be combined to create new sociometric variables. For example, a social impact score (SI), how much a child is noticed by peers, can be created by adding the like most score to the dislike score. A social preference score (SP) can be created by subtracting the dislike score from the like most score. Social impact and social preference scores are used to obtain social status. For example, once scores are standardized, rejected status is derived from a social preference (SP) score less than -1.0 and a liked least (LL) score greater than 0, along with a like most (LM) score of less than 0. Popular status is defined as a SP score greater than 1.0, LM score greater than 0, and LL score less than 0. Neglected status is defined
as a social impact (SI) score less than -1.0 along with an absolute LM score equal to 0. Average status is defined as a SP score greater than -0.5 and less than 0.5. Controversial status is defined as a SI score greater than 1.0, a LL score greater than 0, and a LM score greater than 0 (Coie et al., 1982).

Because some school officials express hesitation to use negative nominations, Asher and Dodge (1986) designed and tested an alternative method of obtaining social status. Instead of presenting children with negative nominations, they suggested that children be presented with a combination of rating scale and positive nomination sociometrics. Asher and Dodge predicted that the like least ratings could successfully substitute for the negative nominations. This method had a 91.2% accuracy rate for identifying rejected children, a rate comparable to using negative nominations.

Behavioral Correlates of Sociometric Status

Because longitudinal data suggest rejected children are at risk for poorer developmental outcomes, researchers have devoted much effort to studying the behavioral correlates of social status. This basic research was done in order to design interventions to help rejected children. The work of Ladd (1983) is a representative example of this research. He used sociometrics to classify children into popular, average, rejected and unpopular/neglected social status groups. Observers, who were blind to children's sociometric status, watched playground interactions over a 16 week period. These observations continued until each child received a total of 70 "scans" or scores. Each scan was scored as interactive social conversation, cooperative play, argue, rough-and-tumble play, noninteractive unoccupied, onlooking, solitary play, or parallel play. The results revealed significant differences between the playground social interactions of
rejected and popular children. Popular and average children spent more time in social interactions with peers than did rejected children. On the other hand, rejected children spent less time in prosocial interactions and more time in aversive interactions, such as arguments and rough-and-tumble play. Rejected children also spent significantly more time alone than did popular or average peers (Ladd, 1983). These results support the hypothesis that the social behavior of rejected children is different from that of more accepted children.

Because reputation may maintain social status once it has been formed and account for the patterns of social behavior observed in existing social groups of children, researchers also studied unacquainted children of different statuses to see if they would replicate their social statuses in a new context. Unacquainted children were brought together in play groups which met for a number of sessions (e.g., Coie & Kupersmidt, 1983; Dodge, 1983). Social status differences were found in the social competence of children's peer interactions. When trying to enter a peer group, popular children were more likely to draw attention away from themselves and to focus attention on the group's activities. Rejected children used more aggressive, hostile, and disruptive techniques when attempting to enter a peer group, whereas neglected children tended to wait for recognition from peers (Coie & Kupersmidt, 1983; Dodge, 1983). The results of these studies suggest that there are behavioral differences among social status groups and that these differences are not solely a function of reputation, since they were replicated among unacquainted children.

Once researchers identified and replicated the behavioral correlates of individual differences in peer relations, they became interested in testing the mechanisms that
mediated these differences. Models of social information processing were hypothesized to mediate the behavioral differences in social competence between social status groups. These models and associated empirical literature are reviewed below.

**Social Information Processing Models and Social Behavior**

Social information processing theory suggests that children engage in a variety of mental steps before they enact either a competent or incompetent form of social behavior. Dodge (1986) proposed a social information processing model of social competence in children which attempted to account for the situational, interpersonal, and intrapersonal factors contributing to children's social behaviors.

Dodge suggested that all children bring with them to each new social situation predetermined biological capabilities along with their own personal data base. The database is acquired through many social experiences and is stored in memory. Social information processing begins with a social cue that must be encoded by the child. To encode the social cue, the child must first sense and perceive the social cue which involves engaging in selective attention and focusing on the social cues that are present. The next step in this model is representation and interpretation of the social cues which involves integrating the current cues with information the child has stored in his/her own personal database. Based on the information stored in long term memory, the child will apply decision rules that are either innate and/or developed from past experiences to form an interpretation of the current situation. For example, the child may employ a decision rule, based on past experience, that leads to the interpretation that the actions of his/her peer were either deliberate or accidental. Dodge points out that at the representation step
there may be a feedback loop to the encoding step if the child feels there is not enough information to interpret the current situation.

The third step of Dodge's (1986) social information processing model is a response search process. The child generates, from long term memory, a number of possible responses and rules that dictate when the responses should be used. For example, if the child has encoded and represented a peer's actions as hostile, the child may decide that he/she has the options of ignoring the provocation or retaliating against the peer. Dodge states that acquired rule structures, past experiences, available responses and the processing steps of encoding and representation of cues all influence the responses that are generated.

The response decision process is the next step in Dodge's (1986) model, as well as the focus of the present study. During this step, the child evaluates the potential consequences of each possible response, including both favorable and unfavorable outcomes. Dodge points out that problems may develop at this point because the generation of possible consequences and outcomes requires extensive mental representation. Younger children may not be as effective at this step because they can not hold the required information in working memory long enough. Eventually, as children become older, they will have better working memory, along with a larger number of possible responses which, ideally, should lead to more competent choices.

Because of past experiences, the child may enter a social situation biased toward certain types of responses. This bias also may occur if there has been faulty processing at one of the earlier social information processing steps. For example, a child may misinterpret a benign action as hostile and intentional, thus biasing the child to search out
and decide on aggressive responses in order to get even with the provocateur. The response decision step will at times feedback to the response search step. This ideally occurs when the evaluation of every possible response leads to an expectancy of unfavorable outcomes. At this point, the child should return to the previous step in order to develop more possible options (Dodge, 1986).

Once the optimal response is selected, the child enacts that response behaviorally. During the enactment step, the child uses a series of learned scripts to guide and direct his/her behavior. At this stage, the child also will monitor the effectiveness of his/her behavior. If he/she needs to, the child will self-regulate the behavior by returning to an earlier step in order to increase the effectiveness of the behavior (Dodge, 1986).

Dodge's model stimulated a large volume of research which attempted to test the various information processing steps. Dodge and Feldman (1990) reviewed this literature and concluded that there was evidence that rejected children are less accurate at representing and interpreting social cues, more likely to attribute hostile intent to peers under ambiguous conditions, more likely to generate hostile or manipulative solutions to problems, have less positive outcome expectations for competent solutions to problems, and more positive expectations for hostile solutions. Thus, this research has tended to support the hypothesis that rejected/aggressive children process social information differently than do their more accepted peers (see also Crick & Dodge, 1994). The following section reviews the empirical research on the response evaluation step of the social information processing model in more detail since this processing step is the focus of the present study.
Representative Research on Social Information Processing: Response Evaluation

Response evaluation is the fourth step in Dodge's (1986) social information processing model. It requires the child to generate a number of possible responses to a situation or problem along with their probable consequences. Researchers begin their studies of response evaluation and outcome expectancies by classifying children into status groups. Examples of methods of classification include sociometric measurements, peer nomination inventories, and the Children's Action Tendency Scale (Asarnow & Callan, 1985). Once children are classified into appropriate status groups, children are presented with hypothetical situations where they imagine performing certain behaviors or that a certain provocation has been done to them. Then, children are asked to rate items such as the following: how likely they would be to perform a specified behavior, how they would respond if a peer behaved a certain way toward them, or how likely certain consequences are to follow specified behaviors. The consequences that have been studied most extensively are social relational ("would other children like you?") and instrumental ("would you gain your desired material outcome?").

Research in this area revealed several differences in the way children generate possible responses and expected outcomes. For example, aggressive children rate aggressive responses as significantly more favorable and effective than nonaggressive responses. Aggressive children also indicate that they feel their peers prefer aggressive behavior. Compared to nonaggressive boys, aggressive boys generate significantly fewer solutions to problems during hypothetical social situations. The solutions they do generate focus on aggressive goals, such as maintaining dominance, while nonaggressive boys' strategies focus on prosocial goals such as maintaining good peer relations.
(Asarnow & Callan, 1985; Deluty, 1983). Perry, Perry and Rasmussen (1986) found that aggressive children expected aggression to lead to significantly more tangible awards, while reducing aversive stimuli. Crick and Ladd (1990) reported that rejected children focused more on instrumental goals than on social relational goals, and they also expected aggressive verbal commands to lead to successful obtainment of instrumental goals. Like younger children, rejected children expected verbally aggressive acts to lead to significantly more positive relational outcomes than did their popular, average and neglected peers (Crick & Ladd, 1990). When reasoning about aggressing toward a peer who was usually a victim, all children demonstrated less concern about victim suffering and assigned greater value to obtaining tangible rewards. However, aggressive subjects revealed this pattern of reasoning regardless of whether the target was usually a victim (Perry, Williard, & Perry, 1990).

With this research, the answer to why different status groups reason differently about possible responses and their consequences began to become clearer. For example, research indicates that rejected and aggressive children see aggression as the best response in problematic social situations because they believe it is likely to lead to obtainment of their desired goals. Some possible explanations for the origin of these beliefs have also emerged. For example, Crick and Ladd (1990) discovered that rejected children reason similarly to younger children. Hence, rejected children's reasoning skills might be affected by a developmental lag. Unlike their peers, rejected children might have failed to develop more mature ways of reasoning and coping in problematic social situations. The fact that rejected children focus primarily on instrumental goals explains, to some degree, this failure to develop more mature reasoning skills. Popular, non-
aggressive children indicated that their primary goals in problematic social situations are to defuse the hostile situation while maintaining good peer relations. These goals require the development of more sophisticated social strategies—such as negotiation, bargaining, and compromise. Since rejected and aggressive children focus on obtaining tangible, instrumental goals, aggressive strategies of goal obtainment continue to serve their needs. It is also possible that aggressive children become more emotionally aroused in problematic situations and/or they may be less able to regulate their arousal in these situations. These higher levels of arousal may interfere with accurate social information processing, especially with the response evaluation and decision process which is cognitively demanding. High arousal may also make children more self-focused and thus more likely to pursue instrumental goals.

As Parker and Gottman (1989) pointed out, achieving harmonious peer relations requires a good deal of emotion regulation on the part of the child. They argue that friendship interactions are a primary context in which children learn to regulate strong emotions in service of mutual peer enjoyment. Because they have fewer friends, rejected children may have reduced opportunities to benefit from these lessons in emotion regulation and cooperation. Also some aggressive children seem to have great difficulty in controlling their angry and hostile behaviors (Dodge, 1991b). Given that provocation situations, by their very nature, elicit strong negative emotions, individual differences in emotion regulation may also influence the competence of children's social information processing. However, studies of response evaluation have been typically done under conditions of low emotional arousal, and social information processing theory has tended
to underplay the contributions of emotion. These concerns have led to a reformulation of
the social information processing model.

A Reformulated Model of Social Information Processing

Social information processing models created a better understanding of the
cognition involved in making either competent or incompetent social choices. Behavior
is now seen as a more complex phenomenon with several stages and steps involved
instead of a simple act based almost entirely on previous actions. Although Dodge's
model has been fruitful, it has been criticized. For example, critics have noted that
Dodge's (1986) model represents cognition as almost a totally sequential phenomenon
(Crick & Dodge, 1994). According to this model, there seems to be very little
overlapping or looping of the information processing steps. Another problem is that a
child's goals for what he/she wants to achieve in a social situation are not addressed in
enough detail (Crick & Dodge, 1994; Dodge, 1991a). Moreover, emotions and self-
efficacy belief effects on goal orientations are not addressed by this model.

Dodge (1991a) himself suggested something is intrinsically wrong with social
information processing models because they have not addressed the role of emotion in
cognition. He argued emotion can be related logically to cognition in many different
ways. For example, emotion may be an antecedent of one step or the entire sequence of
steps related to social information processing. Previously, information processing
theories focused mainly on external environmental cues and how they affected each step
of information processing. However, internal environmental cues, such as arousal, mood
and motivation could play a very influential role at any step of the information processing
sequence. Emotion also could be a result of information processing. For example, if a
child is pushed out of line by a peer, he/she will engage in information processing steps that will lead to the conclusion that the act was accidental or intentional. A child who concludes that the act was intentional might feel anger or frustration, emotions that may elicit different behavioral responses than those from the child who concludes the act was accidental. Emotion could possibly function independently from cognition, or emotion and information processing could be so intrinsically linked that they are not separate constructs but the same construct (Dodge, 1991a).

In order to determine the effects of emotion on information processing, Dodge (1991a) suggested emotion should be more tightly defined. Dodge pointed out that emotion has been defined in four different ways in the literature. Emotion has been defined in terms of physiological arousal states such as changes in heart rates, hormonal secretions, and respiration. Emotion also has been conceptualized as an organizer of goals by altering selective attention and response search and decisions. A different approach involves defining emotion as experienced feelings such as anger, happiness, and sadness. Finally, emotion also has been defined in terms of expressive behaviors. After considering these definitions, Dodge proposed that emotion should be defined as a director of goals and/or the experience of feelings.

Attempting to address the problems with Dodge's (1986) model, Crick and Dodge (1994) proposed a reformulated model of social information-processing that incorporates emotion and its effect on information processing. This model is very similar to the one described above; however, it does have some important differences. Both models suggest that the process begins with the encoding of situational and internal cues. But, the next step, the interpretation and representation of the attended cues, is more complex in the
reformulated model. In the reformulated model, this step also involves an analysis of the events in the present situation that did or did not lead to goal attainment. Evaluations of past performances with peers and inferences about the meaning of past and current interactions with peers also are made during this step. The authors point out that this step and all the processes involved in this step are influenced by social schemas and scripts stored in the child's long term memory, and the process of interpretation may at any time result in revisions of the child's personal database.

The third step of the reformulated model involves selecting a new goal or continuing with the current goal. According to Crick and Dodge (1994), a goal is a state of arousal that orients the behavior toward obtaining a desired outcome. They also suggest that children bring goal tendencies into social situations, but will revise those goals or construct new goals in response to the current situation. For example, a child may be presented with a situation that leads him/her to the goal of staying out of trouble, getting even with his peer, making a new friend or obtaining a desired reward such as praise. They believe emotion underlies a child's motivation to pursue particular goals. For example, if a child perceives a peer's actions as hostile, this could make him/her angry. This anger could then motivate the child to pursue aggressive goals aimed at retaliation. But, Crick and Dodge also suggest that pursuing a goal also could influence affect. For example, pursuing a positive goal might elevate a child's mood, or pursuing a passive goal might decrease anger or anxiety (Crick & Dodge, 1994).

The fourth step of the new model is to select from memory a number of possible responses. If none of the responses in memory are adequate, then construction of new behavioral responses takes place. The fifth step involves selecting one of the possible
responses. The authors point out that a number of factors influence response selection. These include the child's goals for the situation, outcome expectancies for different responses, the child's ability to enact the response, and the appropriateness of the response. After the response is selected, the child behaviorally enacts the response (Crick & Dodge, 1994).

The reformulated model does offer some advantages over the previous model. Unlike previous models that depicted a sequential linear structure of processing, this model depicts a more realistic parallel model of processing, which suggests that children are constantly and simultaneously encoding, interpreting and accessing responses. This model suggests that goals are important in guiding the evaluation and selection of behavioral responses, but at the same time it downplays the importance of self-efficacy beliefs and their influence on goal selection. This model also fails to identify emotion as a powerful influence on behavior, choosing to conceptualize it as a goal state. The following section reviews the empirical literature on children's response evaluation and decision-making in light of both the Dodge (1986) and Crick and Dodge (1994) models. Particular attention is paid to the influence of emotion, arousal, and goals.

**Emotion and Social Information Processing**

An emerging, growing body of research suggests that emotion has a powerful effect on children's social information processing capabilities. In fact, the question is no longer whether emotion affects social information processing, but how emotion affects social information processing. Dodge (1991a) suggested that emotion can affect any area of social information processing directly. In essence, emotion is viewed as a part of the child's base state, and it can go on to affect any area of the child's reasoning, including
response evaluations. However, Crick and Dodge (1994) suggested that emotion should not be viewed as a base state. Instead, emotion is believed to affect only goal orientations. Goal orientations drive and determine how a child reasons and behaves in social situations. Here, emotion is believed to have an indirect effect on behavior as opposed to the direct effect proposed by Dodge (1991a). Since very little is known about the effects of emotion on social information processing, most of the literature focuses on trying to determine which theory better describes the relationship between emotion and social information processing.

One such study by Dodge and Somberg (1987) was designed to determine how aggressive and nonaggressive boys process information when they feel threatened. Subjects were presented with twelve vignettes in which a boy in a numbered shirt committed an action that caused a negative outcome for the other boy. The intent of the boy in the numbered shirt was depicted as either hostile, accidental, prosocial, or ambiguous across the different stories. Subjects were told to watch the boy in the numbered shirt and interpret his intent; they indicated on a multiple choice answer sheet how they would respond in the situation (get mad at the peer; tell the teacher; ask the peer why it happened; forget the peer and keep playing). The first group of vignettes were presented under relaxed experimental conditions; the next two groups of vignettes were presented under conditions of threat. The relaxed condition was just a normal research setting in which the child was presented with a number of vignettes and the experimenter asked the child a series of questions related to each vignette. The threatening setting involved leading the child to believe that he/she would be in a confrontation with a peer upon completing the interview. The threatening setting was achieved through an audio
system that allowed the child to overhear a rehearsed conversation between the interviewer and an obviously hostile child. The child was hostile because he didn't want to interact with the subject. In the relaxed experimental setting, there were no significant differences between the aggressive and nonaggressive boys in social information processing. However, in the threatening experimental condition, aggressive children made significantly more hostile attributions to ambiguous provocations than they did in the relaxed experimental condition. Aggressive children also were significantly more likely to attribute hostile intentions even when the behavior was clearly accidental than were nonaggressive children. These results suggest that aggressive children's social difficulties are related to deficits in managing arousal in provocative situations. Moreover, the results demonstrate that aggressive children can reason similarly to nonaggressive children under relaxed conditions.

Vitaro, Pelletier, and Coutu (1989) designed a study to determine if negative social experiences affect emotional and cognitive responses of aggressive-rejected and prosocial-popular children. Children were assigned to one of two conditions. In condition A, children were presented with a social problem solving interview immediately following provocations involving a peer-accomplice. In condition B, children were exposed to the same provocations but then watched a series of social problem situations on videotape for 10 minutes before receiving the social problem solving interview. To control for any possible effects of the video tape, subjects in condition A watched the same video before the provocations. The negative social experiences were created by a peer accomplice whose intent was ambiguous. The accomplice interfered with a video game by pulling the cord out of the wall with his feet.
Then, the accomplice pointed to a block pyramid the subject had built in order to win a prize. While pointing to the pyramid, the accomplice knocked the blocks down. The accomplice then poured out all but a few drops of juice from a pitcher in the room into his/her cup ensuring that the subject would be left with nothing to drink. They found that all subjects in condition A (immediate condition) reported more negative emotion than same status peers in condition B (delayed condition). Status group differences in reasoning were not found in the immediate condition thus suggesting that the experimental manipulation was intense enough to alter all children's reasoning. However, in the delayed condition, status group differences emerged. Aggressive-rejected first-graders were less likely to attribute positive intentions to the accomplice than were their popular-prosocial classmates. Aggressive-rejected children intended to use less verbal assertion and more direct hostile actions in the event of future provocations. These results suggest that aggressive-rejected children may be less able to regulate their arousal following a provocation and thus still experience effects after a delay.

Together, these studies suggest that negative arousal is an important factor in social information processing. However, these studies do not address the effect of discrete emotions on social information processing. For example, Dodge and Somberg (1987) created an environment of negative arousal but it is unclear what the child was actually feeling. The thought of a confrontation with a peer might make children angry, anxious, sad, or even fearful. All of these emotions are negative; however, a child who is afraid may reason differently than a child who is angry. In Vitaro et al. (1989), the children reported the emotion they thought they were feeling, but different, discrete negative emotions were collapsed into one category, and the study failed to account for
intensity of experienced emotions. A child very angry could reason differently than a child who is only slightly angry.

Graham, Hudley, and Williams (1992) designed a study to test whether intensity of emotion affects patterns of attribution among aggressive and nonaggressive African-American and Latino adolescents. Subjects were given an attributional questionnaire that contained eight stories depicting a negative outcome occurring to the subject. The negative outcome was initiated by a provocateur whose intention was either prosocial, accidental, ambiguous, or hostile. Subjects were asked whether they thought the peer provocateur meant to do that and whether or not he/she did it on purpose. They also asked subjects to rate how angry, mad, and grateful (thankful) they would feel toward the peer if the negative outcome actually occurred. The status groups did not differ significantly in attribution of intent in the prosocial, accidental, and hostile intent conditions. However, in the ambiguous intent situations, aggressive-rejected subjects, attributed significantly more intentionality for the negative outcome than did nonaggressive subjects. Aggressive-rejected subjects also indicated that they felt significantly more angry about each negative outcome than did their nonaggressive peers. Researchers also found strong positive correlations for aggressive and nonaggressive subjects for intentionality, anger, and aggressive behavior. In essence, if a peer's actions are intentional more anger is experienced, which leads to a higher likelihood of behaving aggressively. But, aggressive subjects were more angry across intent conditions and chose more hostile responses. Nonaggressive subjects' attribution of intent as nonintentional mitigated their anger, and they were less likely to choose hostile responses when provocations were seen as unintentional (Graham et al., 1992). Thus aggressive-
rejected children's more intense anger seemed to interfere with using intent information in choosing responses to provocations. Despite recognizing prosocial and accidental intent, aggressive-rejected children still felt more angry and chose hostile responses.

Nonaggressive children's attribution of intent modified their response choices; that is they did not choose hostile responses to acts with prosocial and accidental intent, and they reported feeling less angry under those conditions.

These studies demonstrate that negative arousal is an important factor in social information processing and that there may be individual differences in how children manage their negative arousal. However, there are several issues that these studies did not address. For example, high intensity, positive arousal might also be debilitating for social information processing; however, these studies provide evidence only for the debilitating effects of negative arousal. The effects of anger or negative arousal on response evaluations and goals also are not addressed. Hence, Crick and Dodge's (1994) hypothesis that only goals would be affected by emotions can not be addressed by any of these studies. However, these studies were successful in demonstrating that negative arousal appears to have more influence on aggressive-rejected children. A possible explanation for why negative arousal has more influence on aggressive-rejected children is that aggressive children have more difficulty regulating their emotions. Another possible explanation for why negative arousal has more influence on aggressive-rejected children is that their reasoning skills could be affected by a developmental lag. Much more maturity and self-control are required to consistently regulate emotions. These skills, as suggested by theorists such as Parker and Gottman (1989), are acquired through interactions with one's peers, particularly friends. However, aggressive children are
usually the rejected children in their classes; therefore, they do not have as many
opportunities to interact with other children and to develop appropriate emotion
regulation skills. The Graham et al. (1992) results suggest that once an aggressive child
is angered, he/she is much more likely to respond with aggression, another indication that
aggressive children have difficulty regulating their emotions and behavior. However,
these studies do not address the role of self-efficacy on cognition. Another very plausible
explanation for why aggressive children have difficulty modulating their emotions and
behavior could be that they do not believe they are capable of such regulation. They
might simply be living up to a self fulfilling prophecy. Moreover, they may have very
high self-efficacy for hostile and aggressive solutions to problematic situations. The
following section discusses relevant research in the area of self-efficacy beliefs and their
effects on goals and social information processing.

Goals. Self-efficacy Beliefs and Social Information Processing

Previous studies in the area of self-efficacy have failed to show strong, if any,
differences between social status groups and their self-efficacy beliefs. For example,
Perry et al. (1986) found that aggressive subjects reported that it would be easier for them
to achieve aggressive goals; however, Cuddy and Frame (1991) found no differences
between groups on beliefs of self-efficacy and goal orientations. Erdley and Asher
(1996) hypothesized that results in this area are weak and sketchy because of faulty
research techniques. Erdley and Asher (1996) addressed the problems of past research by
developing new techniques. They pointed out that a significant problem with past
research in this area is that the focus has been on how children of different social statuses
differ in their goals and suggested that findings would be stronger if the focus were on
how goals for social situations affect behavior. Erdley and Asher (1996) contended that studying several different social situations causes incorrect conclusions about children's social goals because conclusions are based on a composite of these social goals. Instead, they argued subjects should be presented with a situation that could elicit a variety of goals. They created a new technique that presents subjects with multiple instances of one type of social situation. Then, they asked children to consider a wide range of possible goals and how likely they would be to try to complete each goal (Erdley & Asher, 1996).

The first step of their study involved presenting subjects with ten ambiguous provocation vignettes describing hypothetical situations in which same-sex peers do something that harms the subject. Children decided whether or not the peer's actions were intentional or accidental. Next, children were given six behavioral responses and asked to indicate how likely they were to engage in each behavior. These responses were used to determine which children were aggressive, withdrawn, or prosocial. In order for children to be selected for further study, children either had to attribute hostile intent in seventy percent or more in the ambiguous provocations (hostile attribution group) or in twenty percent or less of the provocations (benign attribution group). The next phase of the study involved assessing these children's social goals and self-efficacy beliefs. Children were given eight goal orientations, and they rated the likelihood that they would try to attempt each goal on a five point scale. They also rated how good they thought they would be at achieving each of these goals on a five point scale (self efficacy). Two to three months later, peer assessments of children's behavior were obtained to ensure that responses to vignettes reflected everyday behavioral tendencies (Erdley & Asher, 1996).
Results for subjects who consistently attributed hostile intent revealed significant differences between aggressive, withdrawn, and problem-solving children. Aggressive subjects gave significantly higher ratings for aggressive behaviors such as getting back at the peer or looking strong. Both the withdrawn subjects and problem-solving subjects (who had made mostly hostile attributions) rated prosocial goals, such as getting along with others or peacefully working things out, significantly higher than did aggressive subjects. Withdrawn subjects also rated staying away from the antagonist significantly higher than both the problem-solvers and aggressive subjects. Aggressive children reported higher self-efficacy beliefs for achieving aggressive goals and lower self-efficacy beliefs for prosocial goals. Problem-solving and withdrawn children reported higher self-efficacy beliefs for prosocial goals and lower self-efficacy beliefs for aggressive goals. Results revealed that for children who consistently attributed accidental or benign intent, aggressive responders tended to endorse significantly more aggressive goals than did withdrawn and problem-solving subjects. Aggressive subjects also reported that they would be better at achieving antisocial goals than they would be at achieving prosocial goals. Pursuit of a particular goal was found to be highly correlated with self-efficacy beliefs for that particular goal suggesting that children are most likely to pursue the goals they believe they can achieve, regardless of intent attributions (Erdley & Asher, 1996).

With the revised technique, Erdley and Asher (1996) demonstrated that contrary to earlier inconsistent findings, self-efficacy beliefs are related to children's goals for social situations, and that goals and self-efficacy beliefs are more important than attribution of intent in explaining children's response evaluations and decisions.
However, due to the sketchy findings of previous studies in this area, Erdley and Asher's new method still needs to be tested by other researchers. It also should be expanded to look at the effects of emotions on goals and/or self-efficacy beliefs. Crick and Dodge (1994) hypothesized emotions affect children's goals for social situations, and Erdley and Asher (1996) have shown a strong relation between goals and self-efficacy beliefs. It is not known, however, whether emotion would affect self efficacy beliefs as well.

Past research suggests that emotions, arousal, and goals do affect how children reason in social situations, but, thus far, very little research has studied how these variables interact. Dodge (1991a) hypothesized that emotion could affect any area of social information processing, including not only goals, but also response evaluations and outcome expectancies, but Crick and Dodge (1994) hypothesized that emotion would affect primarily goal orientations. It is the chosen goal orientation that in turn affects social information processing. Erdley and Asher's (1996) results further suggest that goal orientation may be a more important predictor of response evaluation than social status or attributions of intent, but they do not consider the effects of emotion on goals and self efficacy beliefs. The goal of the present research is to study the effect of mood on children's goals, response evaluations in the form of outcome expectancies, and self efficacy beliefs.

A primary question for this study concerns whether mood affects all aspects of social information processing (e.g., Dodge, 1991a) or whether it primarily affects children's goals, which then affect children's outcome expectancies (e.g., Crick & Dodge, 1994). Very little is known about the effect of mood on self efficacy beliefs; thus this study will provide some preliminary data to address this question. Therefore, in relation
to the current study, the first hypothesis that will be tested is whether emotion affects social information processing (i.e., goals, outcome expectancies, self-efficacy beliefs) directly or whether emotion influences social information processing indirectly by first influencing goal orientations which, in turn, influence the other areas of social information processing. In particular, the first hypothesis addresses the effect emotion has on children's response evaluations and goal orientations. The first hypothesis is divided into three steps. The first step focuses on the goal processing step and should determine whether mood significantly affects children's goal orientations. The second step focuses on the response evaluation processing step and should determine if mood has a direct effect on outcome expectancies. If it does, then Dodge (1991) will gain support. The third step also focuses on the response evaluation processing step; however, it is designed to determine if goal type rather than mood significantly affects outcome expectancies. Crick and Dodge (1994) will be supported if mood affects goals only, and goals then affect response evaluations.

There is some evidence to suggest that, compared to non-aggressive children, rejected-aggressive children's social information processing may be more disrupted by negative mood (e.g., Dodge & Somberg, 1987; Graham, et al., 1992; Vitaro, et al., 1989). Therefore, this study will examine whether mood differentially affects rejected-aggressive and accepted-nonaggressive children's goals, outcome expectancies, and self-efficacy beliefs. Graham et al. (1992) found evidence that suggested aggressive children are more angered by hypothetical provocations regardless of the intent of the peer, and Vitaro et al. (1989) and Dodge and Somberg (1987) provided evidence that suggested negative arousal has a more pronounced effect on aggressive children than nonaggressive
children. Hence, the second hypothesis that will be tested is whether mood affects rejected-aggressive children’s social information processing more than that of accepted-nonaggressive children. The second hypothesis is tested with two analyses. The first analysis will determine whether mood affects rejected-aggressive children’s social information processing more than it does that of accepted-nonaggressive children. The second analysis will determine whether mood, goal orientation, or social status influence children’s outcome expectancies. Graham et al. (1992), Dodge and Somberg (1987), and Vitaro et al. (1989) all found evidence suggesting that aggressive children are more affected by negative arousal than nonaggressive children. If these findings are repeated in the current study, then rejected/aggressive children will show stronger effects when the induced mood is anger.
Participants

The participants were 480 (222 boys, 258 girls) ungraded primary children (grade 1, n = 185; grade 2, n = 151; grade 3, n = 144) enrolled in five different elementary schools from two school districts. Participants were tested in two sessions on different days. Parental permission was required for participation.

Peer Assessment Materials and Procedure

In order to ensure that children had an adequate amount of time to become acquainted, sociometrics were conducted at least 4 months after the school year began. Any student who transferred to the school after the school year began was not permitted to participate unless he/she had attended the school a minimum of 8 weeks. The age of the youngest child in the class determined the type of stimulus materials and procedures used. All procedures had been used previously with ungraded primary children (see Lemerise, 1997). Classes with first grade children were interviewed individually; classes that consisted of second grade and older children were interviewed as a group. Before beginning the actual interview and after completing the interview, children of all ages were told to keep their answers to the questions a secret to prevent hurting anyone's feelings. Children were instructed that the only people they could tell about what they said were their parents.

For the younger primary children, cards with classmates' block-printed first names and last initials were drawn from the experimenter's hand, one at a time. The children
were then instructed to identify the classmate and indicate how much they liked to play with him/her on a 5-point likert-type rating scale (1 = "not much" to 5 = "most of all"). Before beginning the ratings, children were trained to use this scale. To ensure that they understood the scale, children were asked to rate various foods and/or games. Ratings did not begin until the child fully understood the scale.

After the ratings were completed, children nominated up to three classmates for each of the following: (1a) "who you like to play with the best of all"; (2b) "who starts fights, hits, pushes, kicks, or says or does mean things to other kids"; (3c) "who is shy and bashful and does not talk or play with others much"; and (4d) "who is easy going and gets along with everybody." Each nomination question was explained in great detail, and the same definition of each behavior was given to all children. During this phase of the interview, the cards with the classmates' names were placed on a table in front of the child so he/she could easily remember the entire class. After the nominations were completed, as a distraction from the sociometric task, children were asked what they wanted to be when they grow up.

Older children were interviewed in their classrooms as a group. Children without permission were given activity sheets to work on while the remaining children participated in the interview. However, even if a child did not have parental consent to participate in the interviews, he/she was still rated by his/her classmates. Before the interview began, children were shown how to set up walls by using their folders and how to use a cover sheet to help shield their answers. One experimenter trained the group on the 5-point scale and on how to record their ratings on the interview forms. These forms contained typed names of the children in the class with a code number beside each name.
Across from each name was a 5-point likert-scale, and the children were instructed to circle the number that corresponded to how much they liked to play with that person. For the nominations, they recorded classmates' code numbers on another prepared answer sheet. After the nominations were completed, as a distraction from the sociometric task, children were asked to write on the same sheet what they wanted to be when they grew up. While the interview was taking place, a minimum of three assistants circulated around the room answering any questions the children had, making sure they answered the questions properly, and making sure the children did not talk with one another about their answers.

**Peer Assessment Variables**

In order to obtain peer acceptance levels, the mean of the ratings each child received was calculated and standardized using z-scores. A social preference score (SP) was created by subtracting the dislike score from the like most score. The dislike score consisted of the number of 1 or "like least" ratings a child received, and the like most score consisted of the total number "like most" nominations each child received. Nominations were also tallied and standardized within class to yield "fights," "shy," and "gets along with others" scores.

Peer acceptance z-scores, social preference scores and fight z scores were then used to classify children as follows: accepted-nonaggressive, peer acceptance and SP > 0, fight score < 0; accepted-aggressive, peer acceptance and SP > 0, fight score ≥ + 0.5; accepted-unclassified, peer acceptance and SP > 0, fight score > 0 and < + 0.5; rejected-nonaggressive, peer acceptance and SP score < 0, fight score < 0; rejected-aggressive, peer acceptance and SP score < 0, fight score ≥ + 0.5; rejected-unclassified, peer
acceptance and SP < 0, fight score > 0 and < + 0.5; or unclassified, could not meet peer
acceptance and SP criterion. Children from each of these groups were then randomly
assigned to either a happy, angry or neutral mood condition. It should be noted that these
status groups were used to ensure children of various types were equally distributed
across mood conditions. Analyses of the data used stricter criteria for status groups
where appropriate (see below).

Overview of Mood Induction and Social Cognitive Interview Procedures

Two experimenters were present during the mood induction and social cognitive
interview. Experimenter 1 was the interviewer who conducted the mood induction and
social cognitive interviews. Throughout the mood induction procedure, this experimenter
rated the child's affect using a seven point scale (1 = "very negative," 4 = "neutral," 7 =
"very positive"). The second experimenter, blind to the child's mood induction condition
and social cognitive interview responses, also rated the child's body language and facial
affect throughout the mood induction and the social cognitive interview. The second
experimenter listened to music played on head phones which effectively blocked out
everything said by Experimenter 1 and the child.

Mood Induction Procedure

Experimenter 1 followed standard procedures (Masters & Furman, 1976) and
began the mood induction by asking the child to remember something that made him/her
so happy that he/she wanted to smile, laugh and jump up and down; so angry that he/she
wanted to yell and stomp his/her feet; or something that didn't matter much one way or
another. After the child said he/she had something in mind, he/she was instructed to use
his/her imagination and really concentrate on that thought for 30 seconds. After this
concentration period, the child was asked to show the experimenter how he/she looked when that happened (display period). The child then indicated on a visual aide depicting emotion faces (smile, neutral, frown, see Figure 1) which face showed how he/she felt when thinking about the emotion used to induce the mood. Children who picked a smile (happy) or a frown (angry) then rated the intensity (1 = "a little," 2 = "kind of," 3 = "very") of the emotion using a second visual aide (see Figure 2 a & b). The child was then told that he/she would be presented with a series of stories and some questions about the stories, and during these stories and questions he/she needed to remember and keep those thoughts in mind.

Both experimenters rated the child's affect and body language during the 30 second concentration period, and the display period as well (when the child demonstrated how he/she felt while having that particular thought). Experimenter 2 also rated the child's facial affect midway through the social cognitive interview.

Response Evaluation Interview

Three provocation vignettes were presented, one at a time, using line drawings. The drawings depicted the following: (1a) a child cutting in line, (2b) a child changing the channel on the television without asking, and (3c) a child taking another's turn while playing a board game. After each vignette, competent, hostile, and inept responses were presented one at a time; order was counterbalanced. For each type of response, children were asked to evaluate the instrumental consequences, the social relational consequences, and the ease/difficulty of performing the chosen response; order was counterbalanced. Before beginning each story, children were reminded to concentrate on the induced mood. Finally, for each story, children were asked whether they preferred an
instrumental or a social relational goal (e.g., "would you rather get back your place in line or have the other kid like you?").

For example, in the line vignette, for the hostile response, the child was asked what would happen if he/she pushed the other child out of line. Instrumental consequences were assessed by asking the child how likely it was that he/she would get back his/her place in the line if he/she pushed the other child out of line. Social relational consequences were assessed by asking the child how much the peer would like him/her if he/she pushed the peer out of line. Self-efficacy beliefs were measured by having the child rate how difficult it would be for him/her to push a child out of line. Children rated their self-efficacy beliefs and the likelihood of each consequence on three different four point scales. For example, in the line vignette, children were presented with each type of response, in a counter balanced order and then asked to rate the following: how much would he/she like you? (1 = not much, 2 = a little, 3 = OK, 4 = a lot); how often would you obtain the instrumental (e.g., "get your place back in line.") consequence (1 = never, 2 = only a little bit of the time, 3 = some of the time, 4 = just about all the time), and how hard it would be to perform the response (1 = very hard, 2 = hard, 3 = a little hard - sort of easy, 4 = not hard at all - very easy). The remaining vignettes and questions followed this same pattern.

For the line vignette, the competent response involved making a deal with the provocateur (I'll let you cut now if you let me cut next time”) and the passive response was to do and say nothing. Instrumental, social relational, and self-efficacy beliefs also were assessed for these responses. At the end of the questions for each vignette, the child's goal for the social situation was assessed by asking him/her whether they would
prefer an instrumental goal (your place back in line, TV channel is turned back, get your turn back) or a social relational goal (the other child likes you).

Upon concluding the response evaluation interview, all children regardless of their prior mood induction were given a happy mood induction. This procedure involved asking children to think about something that made them so happy they wanted to smile, laugh, and jump up and down. As before, children concentrated on the happy mood for 30 seconds and then displayed how they looked when they felt that way. As before, the child indicated on the visual aides (Figure 1 and Figure 2 a & b) the intensity of the emotion, and both experimenters 1 and 2 rated the intensity of the child's affect. The child was then debriefed and taken back to class.

Scoring of the Social Cognitive Interview

In order to ensure that affect was rated correctly, for 20 percent of the interviews, there was a third experimenter present. The third experimenter had on head phones just like Experimenter 2, making him/her blind to the child's mood and rated the child's affect at the same times that Experimenter 2 did. Inter-rater agreement was assessed with kappa (Cohen, 1960). For the blind experimenters, average Kappa = .79. Average inter-rater agreement for Interviewer B and the blind rater = .80.

After each response evaluation interview, children were asked to decide whether they wanted the instrumental goal (place back in line, their TV channel back, their turn back) or the social relational goal (the other kid to like you). These choices were counterbalanced during the interview. Later, instrumental goals were scored as a 1 and social relational goals were scored as a 2, and the number of instrumental goals chosen was tallied. Children who chose instrumental goals on two or more stories were
classified as having a primarily instrumental goal orientation. Those who chose social
relational goals on two or more stories were classified as having a primarily social
relational goal orientation. For each of the consequences (instrumental, social relational)
and self-efficacy, children's scores could range between 1 and 4. Instrumental
consequence, social relational consequence, and self-efficacy belief ratings were averaged
across stories, yielding average instrumental consequence, average social relational
consequence, and averaged self-efficacy ratings.
Chapter III

Results

Analyses Overview

The results will be divided into three sections. In the first section, the analyses that determine whether or not the appropriate moods were induced will be presented. The analyses used experimenters' ratings of the children's affective displays for the concentration period, display period, interview midpoint, and the child's report of the thought used to induce the mood as dependent variables in three 3 (mood) x 2 (gender) x 3 (grade) x 6 (social status) MANOVAS. There should be no significant interactions, but there should be significant main effects of mood for each dependent variable. Univariate ANOVAS were conducted on each significant main effect of mood, and Tukey's HSD tests were performed in order to determine which means were significantly different.

The second section presents the results of analyses which test the first hypothesis: whether emotion affects all areas of social information processing directly or whether emotion influences social information processing indirectly by first influencing goal orientations which then influence the other areas of social information processing. The first hypothesis was tested with three sets of analyses. The first analysis covaried peer acceptance level and aggression level and used the number of instrumental goals as the dependent variable in a 3 (mood) x 3 (grade) x 2 (gender) ANOVA. The second set of analyses consisted of three 3 (mood condition - happy, angry, and neutral) x 3 (grade level - first, second, and third) x 2 (gender) x 3 (peer acceptance level - low, average, and high) x 3 (aggression level - low, average, and high) MANOVAS with the average outcome expectancies (social consequences, instrumental consequences, self-efficacy) for
competent responses as dependent variables in one analysis, the average outcome expectancies for hostile responses as dependent variables in the second MANOVA, and the average outcome expectancies for passive responses as dependent variables in the third MANOVA. The third set of analyses was three 2 (goal type - instrumental versus social relational orientation) x 3 (mood condition - happy, angry, and neutral) x 3 (grade level - first, second, and third) x 2 (gender) x 3 (peer acceptance level - low, average, and high) x 3 (aggression level - low, average, and high) MANOVAS with the average outcome expectancies (social consequences, instrumental consequences, self-efficacy) for competent responses as dependent variables in one analysis, the average outcome expectancies for hostile responses as dependent variables in the second MANOVA, and the average outcome expectancies for passive responses as dependent variables in the third MANOVA.

The third section presents the results of analyses which test the second hypothesis: whether mood has a more pronounced affect on the outcome expectancies of rejected/aggressive children than on those of accepted/nonaggressive children. This was done using two sets of analyses. The first analysis was a 3 (mood) x 2 (status) ANOVA with number of instrumental goals as the dependent variable. The second set of analyses was three 3 (mood condition) x 2 (goal type) x 2 (status, accepted-nonaggressive versus rejected-aggressive) MANOVAS with the average outcome expectancies (social consequences, instrumental consequences, self-efficacy) for competent responses as dependent variables in one MANOVA, the average outcome expectancies for hostile responses as dependent variables in the second MANOVA, and average outcome expectancies for passive responses as dependent variables in the third MANOVA.
Gender and grade were omitted from these analyses because the cell sizes for the extreme status groups were too small if they were included. Statuses include accepted/nonaggressive children with peer acceptance level $\geq +1.0$ and aggression level $\leq -0.5$ and rejected/aggressive children with peer acceptance level $\leq -1.0$ and aggression level $\geq +1.0$. Significant main effects were followed with ANOVAS and Tukey's HSD tests, and interactions were followed with Tukey's HSD tests.

**Mood Induction Manipulations**

Interviewer B induced the mood and conducted the social cognitive interview. This interviewer was not blind to the child’s induced mood. Interviewer B rated the child’s affect and body language during the 30 second concentration period and during the display period at which time the child demonstrated how she/he felt while thinking about her/his thought. A second experimenter, experimenter A, was also present during the mood induction and the social cognitive interview. This experimenter, who was blind to the child’s induced mood, rated the child’s affective displays at the same points in the interview and also rated the child’s facial affect midway through the social cognitive interview, when the child reported the thought used to induce the mood, and after the happy mood induction at the conclusion of the interview.

**Analyses of Experimenter A’s ratings.** In order to ensure that the appropriate moods were induced, Experimenter A’s (blind experimenter) ratings of the children’s affective displays for the concentration period, display period, interview midpoint, and while reporting the thought used to induce the mood were the dependent variables in a 3 (mood) x 2 (gender) x 3 (grade level) x 6 (social status) MANOVA. Significant main effects for mood, $F(8, 770) = 75.65, p < .0001$ and gender, $F(4, 385) = 3.62, p < .01$
were found; there were no significant interactions. Follow-up univariate ANOVAS were performed. There were significant effects of mood for Experimenter A’s ratings of the display period (when the child physically demonstrated the way the induced mood looked), $F(2, 474) = 995.05, p < .0001$; the concentration period (how the child looked while thinking about the thought he/she used to induce the mood), $F(2, 474) = 97.43, p < .0001$; while reporting the thought used to induce the mood, $F(2, 474) = 261.13, p < .0001$; and midway through the social cognitive interview, $F(2, 474) = 27.63, p < .0001$. The means and standard deviations for these analyses are summarized in Table 1. For all types of ratings, Tukey’s HSD tests revealed significant differences between the means for all three moods. For example, children induced to feel happy looked significantly happier during all the rating periods than did children in the angry and neutral mood conditions. Children induced to feel angry looked significantly angrier during all the rating periods than did children in the happy and neutral mood conditions. Children induced to feel neutral had affect ratings that were at the neutral point of the rating scale during all the rating periods, and these ratings were significantly different from those in the happy and angry mood conditions. Their values were significantly less positive than children in the happy induction condition and significantly less negative than children in the angry induction condition. These results demonstrate that the appropriate moods were induced.

In the original MANOVA, significant main effects of gender also were found. Follow-up univariate ANOVAS revealed significant effects of gender for Experimenter A’s ratings of the display period (when the child physically demonstrated the way the induced mood looks), $F(1, 474) = 5.67, p < .02$ and the concentration period (the child’s
affective appearance while concentrating on mood induction thought), $F(1, 474) = 11.49$, $p < .001$. For both the display period and the concentration period, girls’ affective displays were rated as slightly more positive (display period $M = 4.17$, $SD = 1.66$; concentration period $M = 4.18$, $SD = .78$) than boys’ affective displays (display period $M = 4.14$, $SD = 1.69$; concentration period $M = 4.01$, $SD = .76$).

Analyses of Interviewer B’s Ratings. A $3 \times 2 \times 3 \times 6$ (mood) $x$ (gender) $x$ (grade) $x$ (social status) MANOVA was performed using Interviewer B’s ratings during the concentration period (the child’s affective appearance while thinking about the thought he/she used to induce the mood) and the display period (when the child physically demonstrated the way the induced mood looks). It yielded significant main effects of mood, $F(4, 474) = 161.28$, $p < .0001$ and gender, $F(2, 387) = 3.90$, $p < .02$. Follow-up univariate ANOVAS also were performed. There were significant effects of mood for Interviewer B’s ratings of the display period, $F(2, 474) = 1101.57$, $p < .0001$ and the concentration period, $F(2, 474) = 123.10$, $p < .0001$. The means and standard deviations are summarized in Table 2.

For the main effect of mood for the display period (when the child physically demonstrated the way the induced mood looks) and for the concentration period (how the child looked while thinking about the thought he/she used to induce the mood), Tukey’s HSD tests revealed significant differences between the three moods. Similar to the results for Experimenter A, children induced to feel happy looked significantly happier during both rating periods than did children induced to feel angry or neutral. Children induced to feel angry looked significantly angrier during both rating periods than did children induced to feel happy or neutral. Children induced to feel neutral had affect
ratings that were at the neutral point of the rating scale during all the rating periods. Their values were significantly less positive than children in the happy induction condition and significantly less negative than children in the angry induction condition.

In the original MANOVA, significant main effects of gender also were found. Follow-up univariate ANOVAS revealed significant effects of gender for Interviewer B’s ratings of the display period, $F (1, 474) = 8.19, p < .004$ and the concentration period, $F (1, 474) = 8.91, p < .003$. For both the display period and the concentration period, girls’ affective displays were rated as slightly more positive (display period $M = 4.18, SD = 1.65$; concentration period $M = 4.15, SD = .77$) than were boys’ affective displays (display period $M = 4.13, SD = 1.77$; concentration period $M = 4.02, SD = .71$).

**Analysis of Children’s Ratings of Emotion Intensity.** A 3 (mood) x 2 (gender) x 3 (grade) x 6 (social status) ANOVA with the child’s emotion rating as the dependent variable was conducted. It revealed significant main effects of mood, $F (2, 388) = 611.87, p < .0001$ and social status, $F (5, 388) = 2.49, p < .031$. For mood, Tukey’s HSD tests revealed significant differences between the three moods. Children who were induced to feel happy ($M = 6.80, SD = .57$) reported feeling significantly more happy than children induced to feel angry ($M = 1.76, SD = 1.2$) or neutral ($M = 4.04, SD = .24$). Children induced to feel angry ($M = 1.76, SD = 1.2$) reported feeling significantly more angry than children induced to feel happy ($M = 6.80, SD = .57$) or neutral ($M = 4.04, SD = .24$). Children induced to feel neutral ($M = 4.04, SD = .24$) had affective ratings that were on the neutral point of the scale and were significantly different from those of children induced to feel happy or angry. These findings also demonstrate that the appropriate moods were induced.
For the effect of social status, Tukey’s HSD tests found significant differences between the means of several of the statuses. Average status ($M = 4.47, SD = 2.21$) and popular children’s ($M = 4.54, SD = 2.16$) mean emotion intensity ratings were more positive than those of unclassified ($M = 3.81, SD = 2.19$), rejected ($M = 3.98, SD = 2.23$), and neglected children ($M = 4.06, SD = 2.16$), who did not differ from one another. Controversial children’s mean rating ($M = 4.30, SD = 2.45$) was more positive than that of unclassified children ($M = 3.81, SD = 2.19$), but controversial children’s mean rating was not significantly different from those of any other status groups. There were no significant interactions of mood and status.

**The Effects of Emotion on Social Information Processing**

The first hypothesis, whether emotion affects all areas of social information processing directly or whether emotion influences social information processing indirectly, by first influencing goal orientations which, in turn, influence the other areas of social information processing was tested in three steps. The first step was designed to determine whether mood significantly affects children’s goal orientations. This was tested using the number of instrumental goals as the dependent variable in a 3 (mood) x 3 (grade) x 2 (gender) ANOVA with peer acceptance level and aggression level as covariates. This analysis revealed a significant main effect of mood, $F (2, 460) = 4.29, p < .02$. Tukey’s HSD tests revealed a significant difference between the means for the angry mood condition ($M = 1.53, SD = 1.21$) and the neutral mood condition ($M = 1.17, SD = 1.09$). Children in angry moods selected significantly more instrumental goals than did children in neutral moods. There were no significant differences between the means
of the happy mood condition ($M = 1.31, SD = 1.12$) and the angry and neutral mood conditions. These results are presented in Figure 3.

The second step of hypothesis one was designed to determine whether mood significantly affects outcome expectancies. If this is the case, then Dodge's (1991a) hypothesis that emotion can directly affect any area of social information processing will be supported. The second step of hypothesis one was tested with three $3 \times 3 \times 2 \times 3 \times 3$ MANOVAS with the average outcome expectancies (social consequences, instrumental consequences, self-efficacy) for competent responses as dependent variables in one analysis, the average outcome expectancies for hostile responses as dependent variables in the second MANOVA, and the average outcome expectancies for passive responses as dependent variables in the third MANOVA. The MANOVAS yielded no significant effects of mood, therefore Dodge's (1991a) hypothesis was not supported.

The third step of hypothesis one was designed to test Crick and Dodge's (1994) suggestion that mood will indirectly affect outcome expectancies by influencing goal orientations which then influence social information processing. The third step of hypothesis one was tested with three $2 \times 3 \times 3 \times 2 \times 3 \times 3$ MANOVAS with the average outcome expectancies (social consequences, instrumental consequences, self-efficacy) for competent responses as
dependent variables in one analysis, the average outcome expectancies for hostile responses as dependent variables in the second MANOVA, and the average outcome expectancies for passive responses as dependent variables in the third MANOVA. If goal type, and not mood, significantly affects outcome expectancies then Crick and Dodge (1994) will be supported.

**Outcome Expectancies for Competent Responses.** The 2 (goal type) x 3 (mood) x 2 (gender) x 3 (grade level) x 3 (aggression level) x 3 (peer acceptance level) MANOVA revealed a significant main effect of goal type, \( F(3, 426) = 5.20, p < .002 \). Three follow-up univariate ANOVAS were run using goal type, peer acceptance level, aggression level, grade, and gender as the independent variables. Average social relational outcome expectations (would others like you?), average instrumental outcome expectations (how effective would the response be?), and average self efficacy ratings (how hard would it be to enact the response?) were the dependent variables. Results of these analyses are summarized in Table 3. Children with social goals believed peers would like them significantly more if they enacted competent social behaviors than did children with instrumental goals. Children with social goals also believed that competent social responses would be significantly more effective than did children with instrumental goals. Finally, children with social goals believed it would be significantly easier to enact competent social behaviors than did children with instrumental goals.

**Outcome Expectancies for Hostile Responses.** The 2 (goal type) x 3 (mood) x 2 (gender) x 3 (grade) x 3 (aggression level) x 3 (peer acceptance level) MANOVA revealed a significant main effect of goal type, \( F(3, 426) = 2.86, p < .04 \). Three follow-up univariate ANOVAS were run using peer acceptance level, aggression level, goal type,
grade, and gender as the independent variables. Average social relational outcome expectations (would others like you?), average instrumental outcome expectations (how effective would the response be?), and average self efficacy ratings (how hard would it be to enact the response?) were the dependent variables. Results of these analyses are summarized in Table 4. Children with social goals believed it would be significantly harder to enact the hostile social responses than did children with instrumental goals, but there were no significant effects for average social relational outcome expectations and average instrumental outcome expectancies.

Outcome Expectancies for Passive Responses. The 2 (goal type) x 3 (mood) x 2 (gender) x 3 (grade level) x 3 (aggression level) x 3 (acceptance level) MANOVA revealed a significant main effect of goal type, $F(3, 426) = 3.17, p < .02$; and a significant main effect of grade, $F(6, 852) = 4.85, p < .001$. Three follow-up univariate ANOVAS were run using peer acceptance level, aggression level, goal type, grade, and gender as the independent variables. Average social relational outcome expectations (would others like you?), average instrumental outcome expectations (how effective would the response be?), and average self efficacy ratings (how hard would it be to enact the response?) were the dependent variables. Goal type effects are summarized in Table 5. Children with social goals believed that peers would like them significantly more if they enacted passive social responses than did children with instrumental goals. There were no significant effects for average instrumental outcome expectancies and self-efficacy ratings.

The results for the main effect of grade are summarized in Table 6. Follow-up univariate ANOVAS found a significant main effect of grade for average effectiveness of
passive responses. Tukey’s HSD tests revealed that first grade children believed that passive responses would be significantly more effective in social situations than did second and third grade children. There were no significant effects for average social relational outcome expectancies and self-efficacy ratings.

The Effects of Mood on Rejected-Aggressive and Accepted-Nonaggressive Children

The second hypothesis, whether mood has a more pronounced effect on rejected-aggressive children than on accepted-nonaggressive children, was tested with two sets of analyses. Gender and grade were left out of the analyses because cell sizes would have been too small if they had been included. The first analysis was a 3 (mood) x 2 (status rejected-aggressive versus accepted-nonaggressive) ANOVA with the number of instrumental goals as the dependent variable. If mood affects the social information processing of rejected-aggressive children more than that of accepted-nonaggressive children, then the mood x status interaction should be significant. There was a significant main effect of mood, $F(2, 101) = 3.97, p < .02$ and a significant mood x status interaction, $F(2, 101) = 3.28, p < .04$. Tukey’s HSD tests revealed that children in angry moods ($M = 1.53, SD = 1.21$) chose significantly more instrumental goals than did children in neutral moods ($M = 1.17, SD = 1.09$). In order to prevent possible alpha inflation, the mood x status interaction was explored with Tukey’s HSD tests. Means and standard deviations are presented in Table 7. Rejected-aggressive children in angry moods chose significantly more instrumental goals than did rejected-aggressive children in happy moods ($p < .05$). Rejected-aggressive children in angry moods also chose significantly more instrumental goals than did accepted-nonaggressive children in neutral moods ($p < .05$).
The second set of analyses for hypothesis two was designed to determine whether mood, goal orientation, or social status influence children’s outcome expectancies. This was tested with three 3 (mood condition) x 2 (goal type) x 2 (status, accepted-nonaggressive versus rejected-aggressive) MANOVAS with the average outcome expectancies (social consequences, instrumental consequences, self-efficacy) for competent responses as dependent variables in one analysis, the average outcome expectancies for hostile responses as dependent variables in the second MANOVA, and average outcome expectancies for passive responses as dependent variables in the third MANOVA.

The MANOVAS conducted on the average outcome expectancies for competent responses and the average outcome expectancies for passive responses found no significant main effects or interactions. The MANOVA conducted on the average outcome expectancies for the hostile responses did reveal a significant interaction between goal type and mood, $F(6, 190) = 3.04, p < .01$. Three follow-up univariate ANOVAS were run using goal type, status, and mood as the independent variables. Average social relational outcome expectations (would others like you?) for the hostile responses, average instrumental outcome expectations (how effective would the response be?) for the hostile responses, and average self efficacy (how hard would it be to enact the response?) for the hostile responses were the dependent variables. The ANOVAS revealed significant goal type x mood interactions for the average social relational outcome expectations, $F(2, 97) = 4.12, p < .02$ and for average self efficacy, $F(2, 97) = 5.59, p < .01$. In order to prevent possible alpha inflation, both goal type x mood interactions were explored with Tukey’s HSD tests. For the goal type x mood interaction
involving the average social relational outcome expectations, Tukey’s HSD tests revealed no significant differences between the variables. For the goal type x mood interaction involving average self efficacy scores, significant differences were found. Results of these analyses are summarized in Table 8. For children with instrumental goals, those in neutral moods believed it would be significantly easier to enact the hostile social responses than did children in angry moods. Also, children with instrumental goals in neutral moods also believed it would be significantly easier to enact the hostile social behaviors than did children with social goals in happy moods.
Chapter IV
Discussion

The current study dealt with two primary questions. The first question concerned the role of emotion in social information processing; specifically, this study addressed whether mood affects all aspects of social information processing directly or whether it affects children’s goals, which then affect children’s social information processing. The results of this study found support for the hypothesis that mood has an indirect influence on social information processing. This study also examined the relationship between children’s goal orientations and self-efficacy beliefs. The current study found that children’s goal orientations for social situations were better predictors of their self-efficacy beliefs than were peer acceptance and/or aggression level. The second question addressed in this study was whether mood has a more pronounced effect on rejected-aggressive children’s social information processing than on accepted-nonaggressive children. Results suggest that mood does have a stronger effect on the social information processing of rejected-aggressive children.

Dodge (1991a) suggested that emotion can affect any area of social information processing directly. In this theory, emotion is viewed as part of the child’s base state, and it can go on to affect any area of the child’s reasoning including response evaluations. Earlier models of social information processing (i.e. Dodge, 1986) presented cognition as almost a sequential phenomenon with very little looping of the information processing steps. Earlier models also failed to address the child’s goals for what he/she wants to achieve in a social situation in enough detail. Moreover, the effects of emotions and self-
efficacy beliefs on goal orientations are completely left out of Dodge's (1986) social information processing model. These concerns lead to a reformulated model of social information processing (Crick & Dodge, 1994). Crick and Dodge in their reformulated model of social information processing suggested that emotion should not be viewed as a base state. Instead, emotion is believed to affect only goal orientation that is believed to be the driving force behind the way a child reasons and behaves in social settings. Hence, emotion is believed to indirectly affect behavior as opposed to directly affecting it as proposed by Dodge (1991a). This model depicted a more realistic parallel model of processing, which suggests that children are constantly and simultaneously encoding, interpreting and accessing responses. This model suggests that goals are important in guiding the evaluation and selection of behavioral responses. But it down plays the importance of self-efficacy beliefs and their influence on goal selection. This model also fails to identify emotion as a powerful influence on behavior instead conceptualizing it as a goal state. These shortcomings lead to one of the goals of the current study, which was to expand the current literature on social information processing by examining the effect of emotion on social information processing, focusing on response evaluations.

Our first hypothesis was designed to test Crick and Dodge's (1994) suggestion that emotion affects outcome expectancies indirectly by first influencing goal orientations which then affect behavior. The first hypothesis was tested in three steps. The first step was designed to determine whether mood significantly affects children's goal orientations. Our results revealed that children in an angry mood chose significantly more instrumental goals than did children in a neutral mood. Hence, emotion did influence goal orientation. The second step was designed to determine whether mood
significantly affects outcome expectancies. Our results revealed no significant main
effects of mood on outcome expectancies; therefore, Dodge’s (1991a) hypothesis that
emotion can directly affect any area of social information processing was not supported.
The third step was designed to test Crick and Dodge’s (1994) suggestion that mood
indirectly affects outcome expectancies by influencing goal orientations which then
influence social information processing. Our results revealed that mood did influence
goal orientation. Our results also revealed several effects of goal type.

Children with social goals believed that competent social responses would lead to
them being significantly more liked, would be significantly more effective, and would be
significantly easier to enact than did children with instrumental goals. Children with
social goals believed it would be significantly harder to enact hostile social responses
than did children with instrumental goals. Children with social goals also believed that
peers would like them significantly more if they enacted passive social responses than did
children with instrumental goals. Together, the results of the three steps of hypothesis
one lend some support to Crick and Dodge’s (1994) hypothesis that mood indirectly
affects social information processing. However, in the current study, anger was the only
emotion that significantly affected goal orientations. A possible explanation for this
finding is that when children are angry, their concerns for social relational outcomes are
lessened, while their desire for instrumental outcomes increase. Hence, a child in an
angry mood might be more concerned about getting back his place in line or getting back
his turn rather than whether or not he is liked by his peer.

Because previous studies in the area of self-efficacy (i.e., Cuddy & Frame 1991,
Perry et al., 1986) have failed to show strong, consistent differences between social status
groups and their self-efficacy beliefs, Erdley and Asher (1996) used a new research technique that presented children with multiple instances of one type of social situation. Children were then asked to consider a wide range of possible goals and how likely they would be to try to complete each goal. Erdley and Asher (1996) found that self-efficacy beliefs and goal orientation for the social situation were more important than attribution of intent in explaining children's response evaluations. In relation to Erdley and Asher's study, the current study revealed that children's goal orientations were significantly related to children's self-efficacy beliefs. For example, children with instrumental goals believed it would be significantly easier to enact hostile behaviors than did children with social goals, and children with social goals believed it would be significantly easier to enact competent social behaviors than did children with instrumental goals.

Several researchers (Graham, et al., 1992; Vitaro, et al., 1989; Dodge & Somberg, 1987) found some evidence suggesting that aggressive children's social information processing may be more disrupted by negative mood. Graham et al. (1992) found evidence that suggested aggressive children are more angered by hypothetical provocations regardless of the intent of the peer. Vitaro et al. (1989) and Dodge and Somberg (1987) found that negative arousal has a more pronounced effect on aggressive children than on nonaggressive children. However, past research neglected to address the effects of negative arousal on response evaluations and goals. Previous studies also provide evidence only for the debilitating effects of negative arousal on social information processing, failing to address the possible debilitating affects of high-intensity positive arousal. Addressing these issues, the current study found that children in angry moods chose significantly more instrumental goals than did children in neutral
moods. The current study also found evidence that rejected-aggressive children in angry moods selected significantly more instrumental goals than did rejected-aggressive children in happy moods. Rejected-aggressive children in angry moods also chose significantly more instrumental goals than did accepted-nonaggressive children in neutral moods. Our results also found that for children with instrumental goals, those in neutral moods believed it would be significantly easier to enact the hostile social responses than did children in angry moods. Also, children with instrumental goals in neutral moods believed it would be significantly easier to enact the hostile social behaviors than did children with social goals in happy moods.

The current study adds to the existing body of research in several ways. It provides further support for the hypothesis that emotion affects social information processing indirectly by first influencing children’s goals which then affect social information processing. It also lends support to previous evidence that children’s goals for certain situations are actually better predictors of children’s self-efficacy beliefs than are children’s social statuses. Our study also found results similar to past research that suggested rejected-aggressive children are more sensitive to negative arousal than are accepted-nonaggressive children.

However, the current study had small cell sizes for the extreme social status groups, rejected-aggressive and accepted-nonaggressive, when grade and gender were included in the analyses. Because of that reason, we were unable to include grade and gender in some analyses. The current study included only children in the first, second, and third grades, hence all results can only be generalized to children in these age groups. Future research should strive to include older children in order to better understand how
mood affects their social information processing, goals, and self-efficacy beliefs. Also, the current study did not include the negative emotions--sadness and fear. Like anger, sadness and fear are also states of negative arousal; however they could induce a different set of goals and self-efficacy beliefs than does anger. Hence, more research that includes the study of sadness and fear is also needed. The current study revealed an indirect influence of emotion on response evaluations. However, nothing is known about the effect of emotion on the other steps of social information processing, such as encoding of information, attribution of intent and response selection. It could be possible that, rather than indirectly affecting encoding and attribution of intent, emotion could directly affect how children encode information from their environment and the attribution of their peers’ intentions. Because little is known about the effect of emotion on these steps of social information processing, future research should further investigate that area.
References


Table 1. Experimenter A's Mean Ratings of Children's Affect by Mood Condition

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Note.

*All F values are significant at p < .001. Mood conditions were rated on a 7 point scale (1 = very angry, 4 = neutral, 7 = very happy). Tukey's HSD tests are significant at p < .05.
Table 2. Interviewer B’s Mean Ratings of Children’s Affect by Mood Condition

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Note.

*All F values are significant at p < .001. Mood conditions were rated on a 7 point scale (1 = very angry, 4 = neutral, 7 = very happy). Tukey’s HSD tests are significant at p < .05.
### Table 3. Outcome Expectancies for Competent Responses to Provocation by Goal Type

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**Note.**
Outcome expectancies were rated on 4 point scales; higher scores indicate more positive outcome expectancies.

***p < .001; *p < .03.
Table 4. Outcome Expectancies for Hostile Responses to Provocation by Goal Type

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Note.
Outcome expectancies were rated on 4 point scales; higher scores indicate more positive outcome expectancies.

*p< .03
Table 5. Outcome Expectancies for Passive Responses to Provocation by Goal Type

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Note.
Outcome expectancies were rated on 4 point scales; higher scores indicate more positive outcome expectancies.

*p < .03
Table 6. Outcome Expectancies for Passive Responses by Grade

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<td></td>
</tr>
<tr>
<td>Social relational</td>
<td>M 3.13 SD .80</td>
<td>M 3.17 SD .72</td>
<td>M 3.32 SD .68</td>
<td>2,446</td>
<td>2.17</td>
<td>ns</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>M 2.65 SD .85</td>
<td>M 2.37 SD .80</td>
<td>M 2.18 SD .78</td>
<td>2,446</td>
<td>12.63***</td>
<td>F &gt; S, T</td>
<td></td>
</tr>
<tr>
<td>Efficacy</td>
<td>M 2.38 SD .85</td>
<td>M 2.48 SD .86</td>
<td>M 2.40 SD .83</td>
<td>2,446</td>
<td>.54</td>
<td>ns</td>
<td></td>
</tr>
</tbody>
</table>

Note.
Outcome expectancies were rated on 4 point scales; higher scores indicate more positive outcome expectancies.***p < .001. Tukey's HSD tests are significant at p < .05.
Table 7. The Number of Instrumental Choices by Status and Mood

<table>
<thead>
<tr>
<th>Status</th>
<th>Mood condition</th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Happy</td>
<td>Angry</td>
<td>Neutral</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M  SD  n</td>
<td>M  SD  n</td>
<td>M  SD  n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rejected-Aggressive</td>
<td>0.90 1.10 10</td>
<td>2.36 1.01 14</td>
<td>1.40 0.99 15</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Accepted-Nonaggressive</td>
<td>1.35 1.15 23</td>
<td>1.36 1.22 25</td>
<td>1.15 1.14 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note.
The mean for rejected-aggressive children in angry moods was significantly different than the mean for rejected-aggressive children in happy moods. The mean for rejected-aggressive children in angry moods also was significantly different than the mean for accepted-nonaggressive children in neutral moods.
Table 8. Average Efficacy Outcome Expectancies for Hostile Responses by Goal Type and Mood

<table>
<thead>
<tr>
<th>Goal Type</th>
<th>Mood condition</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Happy</td>
<td>Angry</td>
<td>Neutral</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Instrumental</td>
<td>2.15</td>
<td>.99</td>
<td>13</td>
<td>1.68</td>
<td>.59</td>
<td>21</td>
<td>2.56</td>
<td>.81</td>
</tr>
<tr>
<td>Social</td>
<td>1.72</td>
<td>.75</td>
<td>20</td>
<td>2.27</td>
<td>.83</td>
<td>18</td>
<td>2.06</td>
<td>.80</td>
</tr>
</tbody>
</table>

Note.
The mean for children with instrumental goals in neutral moods was significantly different from the mean for children with instrumental goals in angry moods. The mean for children with instrumental goals in neutral moods also was significantly different from the mean for children with social goals in happy moods.
Figure Captions

**Figure 1.** Visual aide depicting emotion faces (frown, neutral, smile) in which the child indicated which face showed how he/she felt when thinking about the emotion used to induce the mood.

**Figure 2a.** The visual aide depicting the intensity of the anger felt by the child when he/she thinks about the thought used to induce the mood.

**Figure 2b.** The visual aide depicting the intensity of the happiness felt by the child when he/she thinks about the thought used to induce the mood.

**Figure 3.** The mean number of instrumental goals by the mood conditions.
ANGRY

OK

HAPPY

4
A LITTLE ANGRY
3

KIND OF ANGRY
2

VERY ANGRY
1
A LITTLE HAPPY
5

KIND OF HAPPY
6

VERY HAPPY
7
Mean Number of Instrumental Goals by Mood Condition

Mood Condition

Mean # Instrumental Goals

HAPPY
ANGRY
NEUTRAL