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The Relationship Between Parenting Style and Children's Anger, Aggressive Behavior, and Perception of Intention

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This study examined the relationship between parenting style and preschoolers' perceptions of intention, their anger, and their aggressive behavior. Each child was told eight variations of the same story and then was asked to rate the characters' intentions and anger. The parents were given the Modified PARI (Emmerich, 1969) and the Child Behavior Checklist (Achenbach & Edelbrock, 1983) to measure parenting style and the child's aggressive behavior. A regression analysis resulted in a significant Beta score of .41 (p < .02) between hostility-rejection parenting style and the child's perception of intention. Previous research shows a relationship between perception of intention and anger or aggressive behavior (Rotenberg, 1985; Fine, 1980); thus, the results of this study suggest that perception of intention could serve as a mediator between hostile parenting and anger or aggressive behavior.

As a possible precursor to juvenile delinquency or other behavioral disorders, anger can have a long-term effect on a child's life (Dodge, Price, Bahorowski, & Newman, 1990). Attributional theory views cognitions as altering experience and suggests that people who perceive causes of anger as controllable, internal, and stable display increased anger, with controllability having the greatest influence (Weiner, Graham, & Chandler, 1982; Graham, Doubleday, & Guarino, 1984). Because the perception of intention affects anger, understanding the sources of this perception could prevent aggressive behavior. A possible factor in the perception of intention may be parenting style, as it also relates to anger (Jensen & Borges, 1986; Ballard & Cummings, 1988). Consequently, this study investigates the relationship between parenting styles, perception of intention, and anger in preschoolers.

The attributions children form regarding the causes of negative situations may determine their reactions to those situations. Ollhoff, Ferguson, and Luten (1989) show that anger positively correlates with attributions of intentionality and of negative motives. Similarly, Weiner, Graham, and Chandler (1982) find that uncontrollable causes of negative situations provoke pity but that controllable (or intentional) and internal causes lead to anger and guilt. They conclude that attributions may determine one's experience of emotions. Because boys with high behavior problems scores are more likely than others to attribute hostile intent to a peer, they may also experience more anger (Dodge, Price, Bahorowski, & Newman, 1990). Furthermore, reactive-aggressive groups display biases and deficits in their interpretations of benign intentions and tend to retaliate aggressively (Dodge & Coie, 1987). Therefore, subjects who attribute a negative situation to hostile intentions or controllable causes demonstrate higher levels of anger and aggressive behavior.

Different parenting styles also affect reactions of anger in children (Metcalfe & Gaier, 1987; Peery, Jensen, & Adams, 1985). Prodding and pressuring by parents can lead to anger, resentment, and rebellion in children (Metcalfe & Gaier, 1987). These results suggest that an authoritarian parenting style, characterized by strict disciplining, could promote anger via its pressure on children. Peery, Jensen, and Adams (1985) further show that rejected and isolated children most often are parented by mothers with attitudes of a patriarchal family structure (with fathers as the dominant family members), low self-confidence, low preference for young children, infrequent praise, no reward for independence, and low disciplining. These children also have fathers with definite expectations for child behavior, infrequent threats, and negative reactions to
Perception of Intention

Parenting characterized by rejection therefore may be related to the social rejection of children. This rejection, in turn, might increase children's anger. Other studies show that children's exposure to anger also can increase their aggressive behavior (Cummings, 1987; Cummings, Zahn-Waxler, & Radke-Yarrow, 1984). This exposure often comes from the parents (Fine, 1980; Rosenberg, 1987). Thus, just as children's perceptions of intention are associated with anger, so are parenting styles that consist of anger and of rejection.

As both perceptions of intention and parenting styles affect children's anger, it is possible that parenting styles influence perceptions of intention. This theory is supported by Moran and O'Brien (1984), who demonstrate a correlation between maternal democratic control and children's intention-based judgments. This finding implies that democratic parenting may prevent attributional biases in children that could lead to increased aggression. However, it does not directly examine anger or aggressive behavior.

The studies already mentioned explain the relationship between children's perceptions of negative situations and anger as well as between parenting styles and children's anger. Although they clarify the important reactions children have to numerous experiences, they fail to examine the relationship between parenting styles and children's perceptions of these experiences: in particular, their perceptions of intention. It is possible this relationship demonstrates that perception of intention is a mediating variable between parenting style and children's anger or aggressive behavior.

Furthermore, most existing studies tend to observe older children and/or children with learning disabilities, thereby ignoring those children younger than school age. As a result of this gap, little is known about perception of intention with regard to young children. Perhaps this is due, in part, to the fact that scales that measure anger and children's perceptions are created for older children and may not suit younger children. These scales often necessitate the capability of children to read and write (Dodge, Price, Bachorowski, & Newman, 1990; Rotenberg, 1985). The development of procedures better suited to measure preschoolers will permit further and more accurate studies on their perceptions. Studying younger ages will additionally aid in the understanding of anger expression development.

In order to reduce anger or aggressive behavior, it is necessary to understand the relationship between parenting and children's perceptions of intention. Studies show that causal attributions affect the emotion produced by an event. For example, hostile intentions and controlled causes increase reactions of anger in young children (Dodge et al., 1990; Weiner, Graham, & Chandler, 1982; Covell & Abramovitch, 1987; Olthof, Ferguson, & Luiten, 1989; Dodge & Coie, 1987). An understanding of the causes of these perceptions may aid in the development of an intervention to alter such perceptions and thereby prevent aggressive behavior. Because specific forms of parenting also increase anger (Peery, Jensen, & Adams, 1985; Jensen & Borges, 1986; Fine, 1980; Rosenberg, 1987), it is possible that parenting styles influence children's perceptions of intention. If such a relationship is found, the alteration of authoritarian parenting style may serve to prevent aggressive behavior.

Research observing older children involves peer influence as an important factor that could influence other factors such as parenting style. Therefore, when examining the effects of parenting styles, studies should focus on those children whose influence by peers is less dominant than their influence by parents (e.g. preschool children). However, only one of the studies examining children's attributions or parenting styles focuses on preschool children (Peery, Jensen, & Adams, 1985). This study does not investigate children's perceptions of intention. Children's perceptions also may change with age, and intervention with aggressive behavior requires an understanding of such cognitions. In order to prevent aggressive behavior, peer influence may also generally be more difficult to modify than parental influence. In this sense, early intervention with younger children when parental influence remains dominant seems practical as a preventive measure. This action requires further studies that examine preschool children in order to understand their perceptions and the effects that different parenting styles have on these perceptions.

In an effort to better understand the possible interventions of aggressive behavior, this study examines an area neglected by previous research. It considers the relationship between parenting styles,
perception of intention, and anger in preschoolers. As past studies show a relationship between perception of intention and anger (Graham, Doubleday, & Guarino, 1984; Rotenberg, 1985) and between parenting style and anger (Peery, Jensen, & Adams, 1985; Rosenburg, 1987), a link between perception of intention and parenting style will expand knowledge of influences on childhood aggression. Understanding those factors that contribute to young children's perceptions makes the prevention of aggressive behavior more likely. This study focuses on parenting style as such a factor.

Because children generally spend the most amount of time with their parents before starting school and thus supposedly are most influenced by them, children aged three to six years in preschools were interviewed to determine their perception of intention in scenarios of child behavior. Their parents were given the Modified Parental Attitude Research Instrument (PARI) to assess their parenting styles and the Child Behavior Checklist to examine the child's aggressive behavior. It was predicted that the three factors: parenting style, perception of intention, and anger, would be related for the children. In particular, it was expected that authoritarian and/or hostile-rejection parenting styles would predict children's perceptions of intention, which then would predict their anger and aggressive behavior.

Method

Subjects
Forty-two pairs of parents and children from six preschools and kindergartens were examined. The children's ages ranged from three years to six years with a mean of 4.52 years. Twenty-three girls and nineteen boys were interviewed. Three of the schools were located in lower-middle class areas, whereas the remaining three schools were located in upper-middle class areas. The ethnicity of the pairs of subjects fell into four categories: 69% Caucasian, 14% African-American, 14% Hispanic, and 2% Asian-American.

Materials
The parents were given the Modified PARI (Emmerich, 1969) and the Child Behavior Checklist (Achenbach & Edelbrock, 1983) for children aged four to eighteen. The Modified PARI separated the scores into three factors: (a) authoritarian control, characterized by the exclusiveness of parent, promotion of dependency, exclusion of outside influences, and suppression of aggression and sexuality; (b) hostility-rejection, characterized by marital conflict, irritability, and rejection of homemaking role; and (c) democratic attitudes, characterized by the reinforcement of verbalization, camaraderie, sharing, and egalitarianism.

The children were told eight stories (see the Appendix) based on stories used by Olthof, Ferguson, and Luiten (1989). The stories described two boys, Bill and Fred, who were building castles out of blocks. These stories consisted of a common introduction and conclusion, but the situations varied in motive, avoidability, and intention. All of the stories concluded with Fred ruining Bill's castle.

The children also were asked questions concerning Fred's intentions and Bill's anger. In order to respond, they used a rating scale made up of seven rectangles of differing sizes arranged from smallest to largest. The increasing sizes of the rectangles represented increasing amounts of anger and of intention. Thus, when responding, the children pointed to the rectangle of the size that they felt demonstrated the amount of the character's anger or intention.

Procedure
Each child was interviewed individually for approximately twenty minutes. First, the child was introduced to the study with a brief description. The rating scale then was explained to the child, with examples such as "How scary is a lion?" followed by the response "I think a lion is this scary [point to the largest rectangle]." The other examples used the animals butterfly and big dog to demonstrate the full range of the scale. The child then was asked the question "How big is a .. ?" using various animals. These activities were designed to test their comprehension of the rating system. All children in the sample were able to demonstrate adequate comprehension of the rating task. Each child subsequently was told the eight stories, each of which was followed by questions regarding intention and anger (e.g. "How much did Fred mean to ruin the castle?"). The stories and questions are presented in order in Appendix A. Following the interview, the Modified PARI and Child Behavior Checklist were sent home to the

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were contacted by the experimenter. Forty-two parents returned the questionnaires.

The children received scores in perception of intention, anger, and aggressive behavior. Both the perception of intention scores and the anger scores were totaled from their responses to the stories told in the interviews. Their aggressive behavior was scored using the aggression scale on the Child Behavior Checklist. The parents received Modified PARI scores for all three categories of parenting style: authoritarian control, hostility-rejection, and democratic attitudes.

**Results**

Approximately 86% of the parents obtained their highest scores in the democratic attitudes category, and 9.5% scored highest in hostility-rejection. About 5% of parents had equal scores in both of these categories, and none of the parents had authoritarian control as their highest score. The children's scores for perception of intention, anger, and aggressive behavior were compared to parenting style scores through both a regression analysis and an Analysis of Variance (ANOVA).

The results of the regression analysis are described according to the model in Figure 1. This model shows the expected relationships between parenting style, perception of intention, anger, and aggressive behavior. Parenting style was expected to relate to anger and aggressive behavior both directly and indirectly through perception of intention. This model was separated into two figures (Figures 2 and 3) in an effort to clarify the results. As expected, a significant Beta score of .41 (p < .02) occurred between the hostility rejection category of parenting style and the child's perception of intention. However, there were no other significant relationships.

The results of the ANOVA test can be seen in Table 1. A significant F value of 2.72 (p < .02) occurred between the democratic attitudes category of parenting and the child's anger. Thus, the children of the democratic attitudes group had higher anger scores. No other significant values occurred.

<table>
<thead>
<tr>
<th>Parenting Style</th>
<th>Perception of Intention</th>
<th>Anger</th>
<th>Aggressive Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritarian Control</td>
<td>F 49, df 25, p &lt; .02</td>
<td>F 52, df 25, p &lt; .02</td>
<td>F 62, df 25, p &lt; .02</td>
</tr>
<tr>
<td>Hostility-Rejection</td>
<td>F 99, df 24, p &lt; .02</td>
<td>F 64, df 24, p &lt; .02</td>
<td>F 81, df 24, p &lt; .02</td>
</tr>
<tr>
<td>Democratic Attitudes</td>
<td>F 69, df 18, p &lt; .02</td>
<td>F 2.72, df 18, p &lt; .02</td>
<td>F 1.49, df 18, p &lt; .02</td>
</tr>
</tbody>
</table>

* significant F value (p<.02).
Table 2. Means for Independent and Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean Score (n=42)</th>
<th>(Possible Range of Scores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritarian Control</td>
<td>-17.45</td>
<td>(-50 to 50)</td>
</tr>
<tr>
<td>Hostility-Rejection</td>
<td>4.33</td>
<td>(-30 to 30)</td>
</tr>
<tr>
<td>Democratic Attitudes</td>
<td>16.86</td>
<td>(-30 to 30)</td>
</tr>
<tr>
<td>Perception of Intention</td>
<td>29.36</td>
<td>(8 to 56)</td>
</tr>
<tr>
<td>Anger</td>
<td>43.14</td>
<td>(8 to 56)</td>
</tr>
<tr>
<td>Aggressive Behavior</td>
<td>7.90</td>
<td>(0 to 40)</td>
</tr>
</tbody>
</table>

Table 2 presents the mean scores for all of the independent and dependent variables with their possible ranges. Overall, the subjects had the highest mean score for democratic attitudes with negative scores for authoritarian control. They also received higher means on anger than on perception of intention.

Discussion

As predicted by the model shown in Figure 1, the results of this study demonstrate a relationship between parenting style and children's perceptions of intention, an area unexamined by past research. The regression analysis shows a significant relationship between hostility-rejection parenting style and children's perceptions of intention. The influence of hostility-rejection parenting on a child's perception of intention may be due to the parental hostility experienced by the child. The frequent experience of parent hostility may cause the child to generally expect hostility from others and therefore perceive events as occurring with increased intention. This theory is consistent with Peery, Jensen, and Adams' (1985) findings that parenting styles are related to children's social functioning.

The model further predicts that parenting style would be related to children's anger and aggressive behavior. The ANOVA shows a significant relationship between democratic attitudes parenting style and children's anger. However, this result is inconsistent with the prediction because the democratic attitudes group has children with higher rather than lower anger scores. The hypotheses also predict that hostility-rejection and/or authoritarian parenting styles would show an increase in children's anger. The results do not support this relationship.

The significant relationship between the democratic attitudes category and anger may have occurred because 86% of the parents fall into this parenting category and only a few subjects score highest in the other categories. That is, low variability in parenting style may have confounded the results. It is possible that significant relationships would have been found with the other parenting styles if more subjects had been categorized into those styles. Another possible explanation for this result is that more information about parenting may presently be available than there was at the time the Modified PARI was developed. With this information, the parents of the study may have foreseen the socially desirable responses (those responses ascribed to democratic attitudes parenting style) on the Modified PARI. Therefore, the subjects may have given these responses and subsequently may have been overcategorized into democratic attitudes parenting style.

Furthermore, it was expected that parenting style would be related to aggressive behavior, as found by Dodge and Coie (1987). Although these results did not occur, the ANOVA for democratic attitudes and aggressive behavior obtained an F value of 1.49 (p = .18). This could be interpreted as approaching significance, and perhaps a greater number of subjects would provide sufficient statistical power to detect differences among other parenting styles. In addition, because the parents completed the Child Behavior Checklist, the results for children's aggressive behavior may have been biased if the parents chose to give socially desirable responses. Thus, if the parents reported a reduced amount of aggressive behavior in their children, the relationship between parenting style and aggressive behavior would not appear. The lack of relationship between perception of intention and aggressive behavior may be due to the same bias. A future study could include the observations of the child's teacher as well as the parent to avoid this bias.

Although perception of intention also is related to anger (Oltthof, Ferguson, Luiten, 1989; Weiner, Graham, & Chandler, 1982), this study does not find such a relationship. The developmental level of the children may affect this result as preschool children may not perceive intention as an important factor in the mediation of their reactions. Even if they
Perception of Intention

understand the intentions of others, they may still react with anger. This theory is consistent with the means shown in Table 2. The mean score for the children's anger is higher than that for their perception of intention. This difference suggests that the children react with increased anger despite lower intention scores.

In general, the low number of subjects for each parenting category may explain the inconsistency of the results with the predictions. Future studies examining a greater number of subjects may detect additional relationships between the factors. Furthermore, possible biases occurring in the parent responses to the Modified PARI and the Child Behavior Checklist due to social desirability may have altered the results. In the future, the teacher's assessment of child behavior, objective observational ratings, and/or a more recent scale of parenting that considers social desirability may avoid these biases. Finally, an examination of differences in responses across such factors as socio-economic status, gender, ethnicity, and age would test the effects of cultural differences and developmental levels. The accountability for all of these possible influences could produce more accurate results.

Despite the possible influences affecting the results, this study finds a significant relationship between hostility-rejection parenting style and children's perception of intention. As past studies show relationships between parenting and children's anger and/or aggressive behavior (Metcalf & Gaier, 1987; Peery, Jensen, & Adams, 1985; Fine, 1980; Rosenberg, 1987) and between perception of intention and children's anger and/or aggressive behavior (Olthof, Ferguson, & Luiten, 1989; Weiner, Graham, & Chandler, 1982; Dodge & Coie, 1987), this new finding shows a link between two factors related to anger and aggressive behavior. Because hostile-rejection parenting predicts children's perception of intention, an intervention of children's aggressive behavior could exist in the alteration of hostile-rejection parenting styles. This alteration might affect aggression directly through its relationship to parenting, as suggested by past research, or indirectly through its relationship to perception of intention, as found in this study.

This study additionally contributes to the study of child development in the perception of intention. The findings show that a relationship between parenting and children's perceptions of intention exists among preschoolers. The existence of this relationship among children between the ages of three and six demonstrates that early intervention is a possibility for reducing aggressive behavior. Future studies examining the effects of parenting styles on children's perceptions of intention, anger, and aggressive behavior would contribute to the understanding of both children's perceptions and intervention possibilities for aggressive behavior.

References


Appendix

Variations of stones with common introduction and conclusion told in interviews with children.

Introduction: This story is about a boy named Bill. Another boy lives next door to Bill and his name is Fred. One day Bill and Fred are playing in the yard. They both took their toys outside. Both of them are building big castles. But then Bill has to go inside to eat. His castle is nice, but he hasn't finished it yet. Fred keeps playing with his own castle. Fred sees that Bill's castle is really nice...

Variations of stories based on motive, avoidability, and intention:

(1) Good/Unavoidable/ Unintentional
But he also sees that Bill doesn't have enough blocks to finish his castle. Fred wants to help Bill make his castle even nicer. So Fred goes to get more blocks for Bill's castle.

But suddenly a big dog shows up. The dog jumps on Fred and Fred falls. He falls right on Bill's castle and the castle is completely ruined.

Fred is shocked to see Bill's castle ruined.

(2) Good/Avoidable/ Unintentional
But he also sees that Bill doesn't have enough blocks to finish his castle. Fred wants to help Bill make his castle even nicer. So Fred goes to get more blocks for Bill's castle.

But then Fred isn't paying attention to what he is doing. He doesn't look where he's walking. He runs right into Bill's castle and Bill's castle is completely ruined.

Fred is shocked to see Bill's castle ruined.

(3) Good/ Unavoidable/ Intentional
But he also sees that Bill doesn't have enough blocks to finish his castle. Fred wants to help Bill make his castle even nicer. So Fred goes to get more blocks for Bill's castle.

But suddenly it starts raining really hard. It's really windy and it's raining really hard. Fred's mother comes out of the house and she shouts at Fred, "Bring all those toys inside immediately. or else they'll get all wet!" Fred thinks, "Uh, oh. I'm going to have to ruin Bill's castle or else I can't bring the blocks inside."

So Fred goes and ruins Bill's castle.

(4) Good/ Avoidable/ Intentional
Fred thinks, "I want to do something that Bill will like very much."

"But what can I do? I could tell him that his castle is really nice or I could try to make his castle even nicer. I think I'll try to make his castle even nicer. But then I'd first have to ruin the castle."

So Fred goes and ruins Bill's castle.

(5) Bad/ Unavoidable/ Unintentional
But he also sees that Bill has a lot of extra blocks that he still needs to use so that he can finish his castle. Fred wants to take all of those blocks away. He thinks, "That way Bill won't be able to finish his castle."

So Fred goes to take Bill's blocks.

But suddenly a big dog shows up. The dog jumps on Fred and Fred falls. He falls right on Bill's castle and the castle is completely ruined.

Fred is shocked to see that Bill's castle is ruined.

(6) Bad/ Avoidable/ Unintentional
But he also sees that Bill has a lot of extra blocks that he still needs to use so that he can finish his castle. Fred wants to take all of those blocks away. He thinks, "That way Bill won't be able to finish his castle."

So Fred goes to take Bill's blocks.

But then Fred isn't paying attention to what he is doing. He doesn't look where he's walking. He
Perception of Intention

runs right into Bill's castle and Bill's castle is completely ruined.
Fred is shocked to see Bill's castle ruined.

(7) Bad/ Unavoidable/ Intentional
But he also sees that Bill has a lot of extra blocks that he still needs to use so that he can finish his castle. Fred wants to take all of those blocks away. He thinks, "That way Bill won't be able to finish his castle." So Fred goes to take Bill's blocks.

But suddenly it starts raining really hard. It's really windy and it's raining really hard. Fred's mother comes out of the house and she shouts at Fred. "Bring all those toys inside immediately, or else they'll get all wet!" Fred thinks, "Uh, oh. I'm going to have to ruin Bill's castle or else I can't bring the blocks inside."

So Fred goes and ruins Bill's castle.

(8) Bad/ Avoidable/ Intentional
Fred thinks, "I want to do something that will really bug Bill."

"But what can I do? I could tell him that his castle is a piece of junk or I could ruin his castle. I think I'll ruin his castle."

So Fred goes and ruins Bill's castle.

Conclusion: Then Bill comes back with another boy. He wants to show the boy how nice his castle is, but he can't do that anymore because his castle is completely ruined.

Questions:
(1) How much did Fred mean to ruin Bill's castle?
(2) How angry do you think Bill is?