

AGGRESSIVE VERSUS NONAGGRESSIVE CHILDREN: EXPLORING DIFFERENCES
IN ATTRIBUTIONAL STYLES TOWARD TEACHERS

by

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Abstract

Dodge (1980) investigated how aggressive and nonaggressive boys reacted to a negative outcome and found that aggressive boys interpreted situations involving peers intended to be benign or ambiguous as hostile; this misinterpretation is called a hostile attribution bias. Dotson (2008) and Bryant (2011) in their thesis research investigated whether a similar bias existed toward teachers. Dotson (2008) found some indirect evidence of a bias and Bryant (2011) followed up using procedures more similar to Dodge. However, Bryant's study included some poorly validated scenarios and answer choices. Hood (2012) increased the validity ratings to at least 80% agreement for scenarios and answer choices. The purpose of this study was to use Hood's validated scenarios and a more stringent screening process to identify aggressive children. A hostile attribution bias was not indicated. However, the aggressive group was significantly more accurate in identifying hostile scenarios than the prosocial group.

TABLE OF CONTENTS

	Page
CHAPTER I: INTRODUCTION.....	1
Overview.....	1
Review of Studies by Dodge and Colleagues.....	3
Summary of Dodge Studies.....	10
Social-Information Processing Model.....	10
Meta-Analysis of Multiple Hostile Attribution Studies.....	12
Review of Dotson’s Thesis Research.....	13
Review of Bryant’s Thesis Research.....	15
Summary of Dotson and Bryant’s Thesis Research.....	18
Review of Hood’s Thesis Research.....	19
Study Purpose and Hypothesis.....	21
CHAPTER II: METHOD.....	23
Participants.....	23
Materials.....	23
Student Risk Screening Scale.....	23
Audio Recorded Scenarios.....	24
Questionnaire.....	26
Procedures.....	26
Scoring Procedures.....	27
Data Analysis.....	28

CHAPTER III: RESULTS.....29

 Analysis of Ambiguous Scenarios.....29

 Analysis of Hostile Scenarios.....30

CHAPTER IV: DISCUSSION.....31

 Limitations.....35

 Future Directions.....36

REFERENCES.....38

APPENDICES.....42

APPENDIX A – Student Risk Screening Scale.....43

APPENDIX B –Transcript of Recording.....44

APPENDIX C – Student Questionnaire.....46

APPENDIX D –Parental Consent.....49

APPENDIX E –Child Assent.....52

APPENDIX F– IRB Approval.....54

CHAPTER I

Introduction

Overview

Engaging in appropriate interactions in the school setting is paramount to achieving academic and social success. Children and adolescents with aggressive tendencies could hinder their social and academic success by causing disruptions in the class, spending less time engaged in academic tasks, and struggling to develop and maintain meaningful relationships. It is imperative for teachers and other caregivers not only to help aggressive children learn to act prosocially, but understand their underlying cognitive processes so that the children may be supported appropriately.

One such cognitive distinction consistently found between aggressive children and nonaggressive children is their perception of the intent of their peers. Early in his career, Dodge (1980) investigated how aggressive and nonaggressive boys reacted to a negative outcome and found that aggressive boys interpreted situations involving peers intended to be benign or ambiguous as hostile. This misinterpretation is called a hostile attribution bias. Through the use of role play, videos, and written scenarios, Dodge and his colleagues have over and over again found the existence of a hostile attribution bias toward peers (e.g., Dodge, 1980; Dodge & Coie, 1987; Dodge & Frame, 1982; Dodge & Newman, 1981; Dodge, Price, Backororski, & Newman, 1990; Dodge & Somberg, 1987). Inappropriate reactions to ambiguous or benign intent by aggressive children also was found to influence peer perceptions of the aggressive children, exacerbating aggressive responses and leading to a vicious cycle of maladaptive behaviors and social rejection (Dodge, 1980). For example, if a

child reacts with aggression in a situation and other children feel aggression is unwarranted, the aggressive peer is more likely to be rejected and given the reputation of being overly aggressive.

In an effort to extend the research previously done on aggressive children exhibiting hostile attribution bias toward peers, Dotson (2008) in her thesis research sought to investigate whether such a bias existed toward teachers as well. Dotson took a more indirect approach than Dodge by inferring the presence of bias from high ratings on the *Attitude to School and Attitude to Teachers* scales from the Behavior Assessment System for Children 2nd Edition (BASC-2), a standardized behavior rating scale. Dotson's results indicated that approximately 30% of students identified as aggressive received *t*-scores in the clinically significant or at-risk range on the *Attitude to School* scale. On the *Attitude to Teachers* scale, 38% of identified aggressive students received *t*-scores in the clinically significant or at-risk range. Results from the students identified as non-aggressive suggested a much more positive view toward school and teachers. Therefore, Dotson felt that at-risk and clinically significant scores exhibited by approximately one-third of the aggressive group hinted at a more negative view of teachers on behalf of the group. Bryant (2011) in her thesis research, built upon Dotson's findings by using techniques in the same vein as Dodge through the use of free recall and scenarios. While Bryant hypothesized that a hostile bias would exist for children screened as aggressive and would not exist for children screened as prosocial, no meaningful difference was found. Situations meant to depict hostile actions by teachers were surprisingly interpreted as benign by both aggressive and prosocial children. Bryant's findings could suggest that aggressive children view peers' aggressive behavior differently

than authority figures' aggressive behavior. However, Bryant pointed out that her study included several scenarios with weak validation ratings. Also, it was possible that the methods used to screen for aggressive and prosocial children were not sensitive enough to detect children with a marked level of aggressiveness (Bryant, 2011). Hood (2012) in her thesis research produced scenarios with stronger validation ratings by using focus groups and scenario validation questionnaires. She improved the validity of the scenarios considerably, reaching 80% agreement or more for each scenario.

The purpose of this study was to further investigate the possibility of a hostile attribution bias toward teachers in aggressive children as compared to children identified as prosocial by improving the methodological flaws in Dotson's (2008) and Bryant's (2011) thesis studies. The previous limitations were addressed first and foremost by using scenarios with higher validation ratings. Also, efforts were made to include highly aggressive participants. That is, the aggressive participants had score in the high risk range on the Student Risk Screening scale (SRSS; Drummond, 1994).

Review of Studies by Dodge and Colleagues

Dodge's initial study (1980) in which he studied hostile attribution in children involved boys from three grade levels (2, 4, and 6) from a semi-rural lower class middle school. Fifteen aggressive and fifteen non aggressive boys from each grade level (90 total) were chosen based on results from teacher assessments and student nominations. The peers were asked to nominate three people they liked the most and liked the least. In addition, they were asked to nominate three peers who fit certain behavioral descriptors, with two involving aggressive behavior (e.g., This child starts fights). The teachers rated participants in the areas

of social relations, initiation of fights, and total involvement in fights on a scale from 1 to 9. The aggressive participants were identified through the teacher assessment if they scored below the median for positive social relations and above the median for questions related to aggression. The children identified as aggressive through the teacher assessment were then filtered out further, and the 15 whose scores were lowest on peer ratings for likeness and highest for peer ratings for aggression were chosen to participate.

The study took place in a two room trailer and the participants were offered a prize if they performed well assembling a 50 piece puzzle in a limited time frame (Dodge, 1980). Furthermore, the participants were told that another child was performing the same task in the adjacent room and were led to believe that they could communicate with the other child through a microphone. However, rather than a child being in the other room, a technician was there operating a tape recording of a 9 year old boy's voice. After 13 pieces had been completed the experimenter told the participant to take a break and took the incomplete puzzle out of the room, informing the participant that she wanted the boys to look at each other's puzzles. Part of the tape recording of the 9 year old boy involved the experimenter telling the "supposed" boy in the other room to look at the other boy's puzzle while she exited the room, leading the participant to believe the experimenter was communicating with an actual boy in the other room. What followed the experimenter's departure from the room was one of three recordings representing three conditions: a hostile condition, a benign condition, and an ambiguous condition. The hostile condition involved the other boy saying, "Gee, it looks like he got a lot done. Well I don't like it. I don't want him to win that dumb prize, so there. I'll mess it up." This statement was followed by a crashing noise and the

other boy saying, "There. That'll do it" (Dodge, 1980, p.164). The benign condition involved the other boy saying, "Gee, it looks like he's got a lot done. I think I'll help him put more pieces together. Hey, there's one, I'll put it here" (p. 164). This was said in a friendly tone and was also followed by a crashing noise, but was followed with "Oh, no, hey, I didn't mean to drop it. I didn't mean it" (p. 164). The ambiguous condition involved the other boy saying, "Gee, it looks like he got a lot done" (p. 164). The ambiguous condition was followed by a crashing noise like the other two conditions, but unlike those conditions it was not followed with a statement by the other boy explaining the intent of the crash.

The experimenter then returned to the participant's room with two puzzles, one presumed to belong to the other child in the next room. The other child's puzzle was partially assembled, but the participant's puzzle was disassembled. The participant was told to look at both puzzles and the experimenter once again left the room. The participant was then video recorded for three minutes and the experimenter returned to escort the participant back to class after giving him a reward for participation. Based on the recorded reactions of the participants, seven categories were coded and included indirect aggressive behaviors (i.e., hitting the wall), positive or negative verbal expression, assembly or disassembly of the other child's puzzle, assembly of one's own puzzle, and an attempt to communicate in a neutral way with the other child. These 7 observed behaviors were broken down so that a child with an aggressive reaction received a score of 3, a child with a neutral reaction received a 2, and a child with a positive reaction received a 1. Both nonaggressive and aggressive children reacted with aggressive behaviors (warranting a score of 3) in the hostile scenario, and both tended to withhold aggressive behaviors (warranting a score of 1 or 2) in the benign scenario.

As expected, the aggressive boys displayed more aggressive behaviors than the nonaggressive boys, but surprisingly enough the aggressive boys engaged in more positive behaviors as well (only for the benign scenario). However, the key difference exists for the ambiguous scenario, with the aggressive boys reacting significantly more negatively than the nonaggressive boys, with little difference from their reactions to the clearly hostile scenario. In the ambiguous scenario, aggressive boys received a mean average score of 2.3, which is significantly higher ($p < .05$) than the mean average score for nonaggressive boys ($M = 1.5$). Therefore, results suggest that aggressive boys react appropriately only when a situation is distinctively benign or hostile.

Using the same participants, Dodge (1980) conducted another study in the same vein as the puzzle experiment, but ensured that the method was different enough so that the participants would not relate the two studies. The second study consisted of a taped interview with the participants where they were read one of two hypothetical situations about 4 different peers (2 aggressive, 2 nonaggressive). Each story resulted in a negative outcome for the participant (i.e., being hit with a ball, having milk spilled on him) by a peer. However, the intent of the peer involved in the story was ambiguous. The children involved in the hypothetical stories were chosen based on the results from the peer ratings in the puzzle study. The participants were asked questions about each hypothetical situation, including how the situation might have happened, whether or not the action was intentional, how he would react behaviorally, what he thought the peer in the story would do following the negative outcome, and whether or not the participant would trust the peer in similar future situations. Aggressive children were 50% more likely than nonaggressive children to

attribute hostile intention to the peer. Aggressive boys were also more likely to believe the peer would continue to act aggressively and to express lack of trust in the peer. In addition, aggressive students were more likely to state intentions of retaliation against the peer.

Dodge and Newman (1981) explored hostile attribution bias further by examining two cognitive processes that could underlie the bias. The same process used in Dodge's first study (1980) was used to identify aggressive and nonaggressive peers, with peer nominations and teacher assessment of social relationships and aggressive behavior. Fifteen aggressive and fifteen nonaggressive boys from three age groups (K-1, 2-3, and 4-5) were selected. The participants were asked to play a detective game in which they tried to determine whether or not the boy in the story they heard committed an act by listening to evidence. Evidence consisted of five recorded testimonies for each story that supported involvement of the participant (three implicating and one counterindicating sentences), did not support involvement (three counterindicating and one implicating), or gave ambiguous information (two implicating and two counterindicating). A prize was offered to the participants for being correct. Three stories described a hostile act, such as a student spilling an elderly woman's groceries and running away, and the participant was made to believe the student in the story was absent from school the day of the hostile act. Three stories also described benevolent acts, for a total of six stories heard by the participants. In order to determine whether or not the absent student actually committed the act, the participant was allowed to listen to all five testimonies, but could make a determination after just listening to one testimony. After making a determination of the student involvement in the story, participants were asked to recall the information they just heard.

The dependent variables were number of testimonies requested, the decision made, and the information freely recalled. The study resulted in aggressive children requesting 30% fewer testimonies and responding more quickly than nonaggressive boys. It is worth noting that a hostile attributional bias was not observed among aggressive boys when they did not respond quickly, meaning when they chose to listen to more testimonies they were more apt to consider alternatives. As far as biased recall of testimonies, 70% of recall by the aggressive boys was hostile in nature. Fifty nine percent of the recall by the nonaggressive boys was hostile in nature. The authors postulated that the hostile attributional bias in aggressive boys could be a result of quick responding and selective attention to hostile cues.

Dodge and Somberg (1987) examined whether or not hostile attributional biases and social cue interpretations would be more apparent under anxiety provoking and threatening conditions. For the study, 33 aggressive and 33 nonaggressive boys from two schools (grades 3, 4, & 5) were chosen based on the peer nominations and teacher evaluations utilized by Dodge (1980) in earlier studies. The participants were asked to watch video recorded vignettes involving two actors. Twelve vignettes were used, each involving a boy with a numbered t-shirt (the provocateur) causing a negative outcome for the second actor. The participants were asked to answer two questions after being directed to watch the provocateur. First, the participants identified whether the intention of the provocateur was mean (hostile), helpful (prosocial), or accidental. Second, the participant answered a multiple-choice question regarding the behavioral response he would have chosen if he had been the victim of the vignette. The intention of the provocateur was depicted in the vignettes in four different ways: hostile, accidental, prosocial, and ambiguous. In order to

simulate threatening conditions, the experimenter turned off the television after the fourth vignette and told the participant he was going to get a child in the next room to join them. A prerecorded audiotape was then played, which involved a conversation between the experimenter and the perceived other child. Before the participant watched the vignettes, he was made to believe a microphone and speaker system connected the rooms. Statements made by the “other” boy in the audiotaped conversation were negative in regards to the experiment and the participant, with the recording saying, “If I go in there, I’m just going to get in a fight with that boy.” The experimenter returned to the participant telling him he was going to have to finish a task with the “other boy”, and that the “other boy” was in a bad mood. The participant was then instructed to finish watching the 8 remaining vignettes. On a scale of 1 (not bothered at all) to 10 (bothered a lot), the participants described how they felt about the boy in the next room and the conversation that took place.

When considering attributions made by participants across the relaxed and hostile conditions, the aggressive boys made more hostile attributions than nonaggressive boys overall. Nonaggressive boys not only showed less hostile attributions, but their attributions did not change across conditions. On the other hand, hostile attributions and inaccuracy identifying accidental intentions increased significantly under the threat condition versus the relaxed condition for the aggressive boys. Nonaggressive boys were more accurate at identifying accidental intentions, and their accuracy did not change across conditions. When identifying prosocial and hostile cues, the aggressive and nonaggressive groups did not differ significantly in accuracy (Dodge & Somburg, 1980).

Summary of Dodge Studies

The existence of hostile attribution bias toward peers in aggressive boys was found in numerous studies conducted by Dodge and colleagues. A predominant theme that emerged in each study was the difference in the way the aggressive boys interpreted situations that were ambiguous or vague. In the first study on hostile attribution conducted by Dodge (1980), aggressive boys were more likely to react in a hostile manner and assume the child in the other room was destroying their puzzle, even if they did not directly indicate doing so. The prosocial boys, on the other hand, were more likely to give the child in the other room the benefit of the doubt. Utilizing the same participants, Dodge (1980) conducted another study which used hypothetical situations that resulted in a negative outcome for the participants. Aggressive children were significantly more likely to attribute hostile intention to the peer, believe the peer would continue to act aggressively, and to seek retaliation. Subsequent studies utilizing a detective game (Dodge & Newman, 1981) and anxiety provoking conditions (Dodge & Somberg, 1987), revealed that a hostile attribution bias continued to exist for aggressive boys even with different modalities used. The studies also revealed that aggressive and nonaggressive boys did not differ significantly in their identification of overtly hostile or prosocial cues (Dodge, 1980; Dodge & Somburg, 1987). Therefore, the key difference between aggressive and nonaggressive children lies in their reaction toward events where the true intentions of the other person are difficult to discern.

Social-Information Processing Model

In order to more adequately explain the existence of hostile attribution bias in aggressive children, Crick and Dodge (1994) formulated a model in an attempt to

conceptualize the way that aggressive children process social information from their environment. The steps in the social information processing model devised by Crick and Dodge are as follows: (1) encoding of external and internal cues, (2) interpretation and mental representation of those cues, (3) clarification or selection of a goal, (4) response access or construction (5) response decision, and (6) behavioral enactment. Encoding and interpretation of cues occurs when a child surveys a situation based on experience, knowledge, and information retained during previous experiences. The goal selection stage is when a child determines what outcome they are aiming for before deciding which actions to take. Step 4 relies again on previous experience and a child either develops a new response (i.e., response construction) for an unfamiliar situation or tries to select a response previously used (i.e., response access) from memory. Response decision is the selection of a response based on the possibility that it will achieve a desirable outcome, and the final step is the actual response being put into action. Hostile attribution bias is believed to be a function of errors in steps 1 and 2 of the model.

Dodge (2006) also proposed a model specifically addressing the ways in which hostile attribution bias manifests in children and leads to aggressive behaviors. According to the model, in the first three years of life, all humans react with aggression and have not acquired the skill to differentiate between benign and hostile intentions. Being able to interpret the actions of others as benign coincides with the development of theory of mind. Cues associated with benign intentions are stored in a child's memory. By interpreting cues from the environment and understanding that others have thoughts or feelings that may not coincide with a negative outcome, a child is able to decipher that a person's intent is benign.

For some children, outcome is more often associated with intent, and cues are not interpreted as benign or ambiguous in a consistent manner. Matching a person's intent to the outcome is less cognitively demanding than using cues to determine that a negative outcome does not always equal hostile intent. The inability to interpret cues correctly could be guided by neurobiological deficits or negative life experiences. Early life experiences form schemas, which could either encourage or impede attribution tendencies. Examples of life experiences that could cultivate a hostile attributional style include modeling of hostile attribution by adults and peers, being raised in a culture where self-defense and retaliation are valued, and experiencing physical abuse. A benign attributional style is fostered through modeling of benign attributions, warmth and secure attachment from a caregiver, and growing up in an environment that values cooperation over personal honor (Dodge, 2006).

Meta-analysis of Multiple Hostile Attribution Studies

Orobio de Castro et al. (2002) conducted a meta-analysis of 41 studies examining hostile attribution bias and aggression and the specific factors that influenced effect sizes. The relationship between larger effect sizes and severity of aggressive behaviors was particularly significant ($Z = 3.78, p < .001$). The presentation of vignettes via video had smaller effect sizes ($r = .09$) than scenarios being read to or by children ($r = .24$), but staged presentations had the largest effect ($r = .55$). With reference to gender, studies with boys only as participants had greater effect sizes ($r = .22$) than studies involving both boys and girls ($r = .14$). Fewer situations presented were associated with larger effect sizes than multiple situations presented. The setting in which testing occurred, response format, and context were not related to effect sizes. Out of the 41 studies examined, 37 supported the

hypothesis that hostile attribution bias is related to aggression, with the mean effect size indicating overall significance ($Z = 11.25, p < .001, r = .17$). Therefore, evidence of a bias in aggressive children toward their peers extends far beyond the initial studies conducted by Dodge and colleagues. There is an abundance of research indicating the existence of hostile attribution toward peers in aggressive children, but limited studies that interpret the way aggressive children interpret the actions of authority figures.

Review of Dotson's (2008) Thesis Research

Dotson (2008) investigated whether aggressive children demonstrated hostile attribution bias toward their teachers. Dotson administered the Behavior Assessment System for Children, Second Edition (Reynold & Kamphaus, 2004), to teachers and students as possible indicators of hostile attribution bias. More specifically, Dotson examined children's scores on the *Attitude Towards School* and *Attitude Towards Teacher* scales, and teacher's scores on the *Aggression* and *Conduct Problems* scales. Scores that fell in the at-risk or clinically significant range were used to select aggressive participants. It was hypothesized that aggressive children would receive higher scores (meaning a more negative view) on the *Attitude Towards School* and *Attitude Towards Teachers* scales when compared to the prosocial group, and this was interpreted to mean the possible existence of a hostile attribution bias.

In order to identify aggressive and prosocial participants, a classroom behavior screener consisting of 7 questions was completed by teachers. Aggressive children were identified through affirmative responses to questions regarding office referrals, suspensions, contact with parents due to inappropriate behavior, and lack of cooperation. The prosocial

children, were identified through affirmative response to questions related to cooperation, compliance, and lack of disciplinary infractions.

Children who met the qualifications as prosocial or aggressive on the screener were chosen randomly to be included in the second stage of assessment that included teachers filling out the BASC-2 TRS-Child. The BASC-2 Teacher Rating Scale is a comprehensive measure of a teacher's perception of adaptive and problem behaviors in the school setting. Aggressive children were chosen on the basis of *t*-scores obtained on the *Aggression and Conduct Problems* scales. The *Aggression* scale assesses a child's tendency towards bullying, hitting, threatening, showing defiance, or losing temper easily. The *Conduct Problems* scale assesses a child's tendency towards antisocial and deviant behaviors, such as lying, stealing, and cheating. In order to be included in the aggressive group, the children had to have *t*-scores ($M = 50, SD = 10$) in the at-risk range (60-69), or *t*-scores in the clinically significant range (above 70).

Of the 21 students identified through the initial classroom screener as potentially aggressive, 13 fell within the at-risk and clinically significant ranges on the *Aggression and Conduct Problems* scales. All 18 students identified as potentially prosocial through the classroom screener received average scores. Therefore, 13 children in the aggressive group and 18 in the prosocial group were administered the BASC-2 self-report. Of the aggressive group, 5 out of 13 (38%) received clinically significant or at-risk scores *t*-scores on the *Attitude to Teachers* scale, and 4 out of 13 (30%) received clinically significant or at-risk range *t*-scores on the *Attitude to School* Scale. Of the prosocial group, 15 out of 18 (83%) received *t*-scores below the at-risk range on the *Attitude to Teachers* scale, and 17 out of 18

(94%) received *t*-scores below the at-risk range on the *Attitude to School* scale. Results indicated that a majority of children in the prosocial group were less likely to have a negative view of teachers and school, as hypothesized. However, a majority of children in the aggressive group also did not have an overall negative view toward teachers and schools.

Review of Bryant's (2011) Thesis Research

Bryant (2011) sought to build upon results found by Dotson (2008), but rather than using the BASC-2 as an indicator for hostile attribution bias, Bryant chose to utilize scenarios as Dodge and colleagues had done. Bryant created scenarios depicting interactions between elementary school teachers and students that resulted in a negative outcome for the student. Students in the school psychology graduate program at Middle Tennessee State University were used to validate the scenarios. Validation ratings were obtained by giving the graduate students a written transcript of the scenarios and asking the students to identify whether the teacher in each scenario had hostile or ambiguous intent. The graduate students also were asked to circle two out of four possible explanations for the teacher's behavior provided in a multiple choice format for each scenario. That is, graduate students were asked to choose two explanations that fit with the teacher's intention for the particular scenario. Study participants were recruited from three elementary schools in middle Tennessee. Bryant used the same classroom behavior screener as Dotson (2008) in order to identify aggressive and prosocial students. The parents of students who met the criteria for aggressive or prosocial were sent consent forms regarding the details of the research. Children for whom consent and assent were obtained were asked to listen to audio recordings of 4 scenarios, with each scenario having a hostile version and an ambiguous version. Nine aggressive students and 6

prosocial students participated. After each scenario, questions regarding the scenario were played on the recording and participants were directed to answer multiple choice questions about each scenario. The child was given a typed version of the scenarios and corresponding questions. Two answers represented hostile intentions on the teacher's behalf, and two answers represented ambiguous intentions. In an attempt to prevent patterned responding, the hostile and ambiguous multiple choice answers varied throughout the questionnaire. The order of the hostile and ambiguous versions of the situations also was varied (Bryant, 2011).

One example of a hostile version of a scenario (Bryant, 2011) is as follows: "One of your classmates and yourself raise your hands for teachers help at the same time. The teacher goes to help your classmate and says to you, "I have already helped you multiple times today you should be able to figure this out by now!"(p.44). The ambiguous representation of the same scenario is as follows: "One of your classmates and yourself raise your hands for the teacher's help at the same time. She goes to help the other student first." (p. 45). The answers representing hostile intent of the teacher were as follows: "She likes him better than she likes you. She always has favorites" (p. 44); "She is tired of having to help you" (p. 44); "She has favorites in the class and I am not one of them" (p. 45); "She does unfair things like that to me all of the time" (p.45). The answers representing ambiguous intent were as follows: "She knows you know how to do the work" (p. 44); "She is trying to help you learn the information on your own" (p. 44); "She tries to spend time helping everyone" (p. 45); "The other student was sitting closer to her" (p. 45).

Bryant (2011) hypothesized that the aggressive children would be more apt to select the answer that is representative of hostile intent for the ambiguous scenarios. In addition,

both groups were expected to be able to recognize hostile intent when the teacher's actions were hostile.

Following the recording of the scenarios and questions, Bryant (2011) asked the participants to recall the information that had just been presented to them. If the child recalled any of the hostile elements in the scenarios, a check was placed above the hostile phrase recalled. The recall must have been from the scenarios and not the answer choices. It was hypothesized that the aggressive children would recall more hostile elements than the prosocial children.

For the Ambiguous scenarios, the prosocial group identified the teacher's intentions as benign 78% of the time, versus the aggressive group identifying benign intentions 79% of the time. Therefore, Bryant's hypothesis that aggressive children would interpret ambiguous scenarios as hostile was not supported. Bryant (2011) noted that a particularly surprising aspect of the study results was the response of the aggressive children toward the clearly hostile scenarios. Rather than both groups correctly identifying the hostile scenarios, the prosocial group was found to be more accurate in recognizing hostile intent than the aggressive group. However, for both groups, the participants tended to suggest the teacher's intentions were benign, despite the actual intent of the scenario. The aggressive group identified the teacher's intentions in hostile situations as benign 61% of the time, and the prosocial group identifying benign intentions 54% of the time. Lastly, it was hypothesized that the aggressive children would recall more hostile cues than the prosocial children. Though results were not significant, Bryant (2011) found that the prosocial group recalled more hostile cues than the aggressive group.

Summary of Dotson and Bryant's Thesis Research

Dotson's (2008) research suggested the possible existence of a hostile attribution bias in aggressive students towards teachers. Yet as previously noted, Dotson's (2008) use of a behavior rating scale was not a direct measure of a possible hostile attribution bias.

Bryant's (2011) thesis results indicated no significant difference between aggressive and nonaggressive children. Yet, Bryant pointed out several methodological flaws that could have influenced the meaningfulness of the results. Namely, the scenario validation procedures yielded less than favorable validation ratings. Three of the situations had agreement of over 90%, but the remaining situations had agreement ranging from 57% to 78% (Bryant, 2011). Also, only the paper and pencil version of the scenarios was validated, not the audio recording. The multiple choice responses were not validated. Lastly, the screening procedures Bryant (2011) used may not have been adequate enough to identify truly aggressive children.

Bryant (2011) surmised that aggressive children may find that hostile actions on the behalf of teachers or caregivers are acceptable and normal behavior. Since peers are not given the status of authority figures, aggressive children react in more inappropriate ways toward peers, even in ambiguous situations. Bryant stressed the possible important implication that elementary age children might be more vulnerable to teacher bullying. The age and status of teachers and authority figures may make children more accepting of hostile interactions (Bryant, 2011).

Review of Hood's (2012) Thesis Research

Hood (2012) in her thesis research expanded upon the thesis research of Dotson (2008) and Bryant (2011), with the intent of improving the scenarios used by Bryant. Through the use of focus groups, Hood improved the validity of Bryant's scenarios. The survey validation research was conducted in middle Tennessee, with a total of 27 participants. Of the 27 participants, 9 were separated into focus groups, and 18 were enrolled in a psychology course at Middle Tennessee State University. The first focus group was comprised of three middle school students, the second focus group included three middle school teachers, and the third was made up of three school psychology graduate students. The participants were chosen due to their knowledge of education and the school environments portrayed in the scenarios and their availability and willingness to volunteer.

Hood (2012) met with the middle school focus group to determine ways to improve the scenarios formulated by Bryant (2011) that did not receive interrater agreement above 80%. The students made suggestions based on their recent experiences as elementary school students. After Hood read the scenarios out loud, the focus group came up with examples of ways to make the scenarios seem more realistic, more hostile, or more ambiguous. Hood took detailed notes of the process and closely followed an integrity checklist to make sure that she followed the same procedures for each group.

Based on the suggestions of the middle school focus group, Hood devised a questionnaire of the modified scenarios to present to the elementary school teacher focus group. Some of the suggestions made by the middle school students included embarrassing the student in the scenario by having the teacher compare him or her to a younger child,

taking away recess as a form of punishment, and changing the tone and punctuation in scenarios where the teacher is addressing the student directly. As had been done with the middle school focus group, the teachers were asked to brainstorm ways to improve the scenarios in order to make them more realistic, hostile, or ambiguous. Using the suggestions made by the teachers, the questionnaire was modified once again before being presented to the final focus group, which was made up of school psychology graduate students. The school psychology graduate students also conjured up ideas on ways to improve the scenarios, and changes were made accordingly.

Both the scenarios and answer choices were included in the validation procedures. Using a Likert-scale format, participants in each of the focus groups were asked the degree to which they felt (A) the situation depicted something that would realistically happen in an elementary school, and (B) whether or not they agreed the teacher was not acting harmful, (C) Whether or not an answer choice shows that the child thinks his/her teacher is being mean, and (D) Whether or not an answer choice shows that the child does not think his/her teacher is being mean.

Scenarios and answer choices were chosen on the basis of specified criteria used with the focus groups. A score of 1 was given if the participant circled *Strongly Agree*, a score of 2 was given for selecting *Agree*, a score of 3 was given for selecting *Neutral*, a score of 4 was given for selecting *Disagree*, and a score of 5 was given for selecting *Strongly Disagree*. After the focus groups finished the questionnaire, the responses were averaged to determine if the threshold criteria had been met. Based on the averages of the focus groups, if a threshold of 2.5 or less was not met for question (A), the scenario was discarded. For

question (B), a threshold of 2.5 or less had to be met for the ambiguous scenarios to be kept, and a threshold of 3.5 or more had to be met for the hostile scenarios to be kept (Hood, 2012). For questions (C) and (D), a threshold of 2.5 or less was required to keep the scenario from being discarded.

Based on the suggestions of the three focus groups and the scoring criteria for the questionnaires, a final questionnaire was made and distributed to the undergraduate and graduate students in a testing and measurement psychology course. Hood (2012) also made a recording of the scenarios to be presented along with the questionnaire to the psychology students. Participants were then asked to rate the multiple choice answers by rating the degree to which they felt each answer was either hostile or ambiguous. In the event that participants did not know the exact definition of hostile and/or ambiguous, the words mean and not mean were used instead.

The results of the validation questionnaire administered to undergraduate and graduate students indicated that all hostile situations received 100% agreement, meaning the situations were perceived as accurately representing hostile actions on behalf of the teacher. One ambiguous situation received 100% agreement, and the other two received 83% and 94% agreement. Of the answer choices, two did not meet the requirement of 80% agreement. Overall, Hood's hypothesis that the scenario validation procedures would improve the validity of the scenarios was supported.

Study Purpose and Hypotheses

The purpose of this study was to utilize the new scenarios validated by Hood (2012) in her thesis research and a screening instrument (SRSS) that effectively identifies aggressive

students to build upon the thesis research of Dotson (2008) and Bryant (2011) and further investigate whether aggressive students demonstrated a hostile attribution bias toward teachers in ambiguous situations.

Hypothesis 1: Children identified as aggressive are more likely to exhibit hostile attributional style when interpreting the teacher's intention in ambiguous scenarios than children identified as prosocial.

Hypothesis 2: When a teacher's intentions in the scenarios are clearly hostile, both prosocial and aggressive children are able to recognize the intentions as hostile.

CHAPTER II

Method

Participants

Students ages 7-12 from the Extended School Program (ESP) for Murfreesboro City Schools were included in the study. Students were selected on the basis of results from ESP staff nomination and meeting screening criteria on the Student Risk Screening Scale (SRSS; Drummond, 1994). A total of 15 students met the criteria for the aggressive group and 12 met the criteria for the prosocial group (27 total). Of the 27 students, parental consent and assent to continue in the study was obtained for 7 aggressive students and 6 prosocial students (13 total). There were 6 females and 7 males included in the study. The prosocial group was comprised of 4 female students and 2 male students, and the aggressive group was comprised of 5 male students and 2 female students.

Materials

Student Risk Screening Scale (SRSS)

The Student Risk Screening Scale (SRSS; Drummond, 1994) is a cost effective and psychometrically sound screener designed to detect antisocial traits in students. The one page screener asks teachers to rate students on 7 items, including 1.) Stealing; 2.) Lying, Cheating, Sneaking; 3.) Behavior Problems; 4.) Peer rejection; 5.) Low academic achievement; 6.) Negative attitude; 7.) Aggressive behavior. Evidence of the reliability and validity of the SRSS has been documented in many settings, including urban and rural populations at the elementary (Menzies & Lane, 2010; Lane, Kalberg, et al., 2010; Lane, Little, et al., 2009) middle (Lane, Parks, et al., 2007; Lane, Bruhn, et al., 2010), and high

school levels (Lane, 2007; Lane, Kalberg, et al. 2008). In a study of 286 elementary students in a diverse suburban Southern California school, Menzies and Lane (2010) found the SRSS to have strong test-retest stability ($r = .69 - .79$) and internal consistency ($r = .85 - .87$). Menzies and Lane (2010) also explored the predictive validity of the SRSS in relation to office discipline referral (ODR) rates and self-control skills. Students who scored in the high risk category at the beginning of the year were more likely to have higher ODR rates ($.48, p < .0001$) and lower levels of teacher reported self-control skills ($-.59, p < .0001$) at the end of the year. The screener can be found in Appendix A. Extended School Program staff were asked to rate students on each of the 7 domains using a 4 point Likert-type scale, with 0 = Never, 1 = Rarely, 2 = Occasionally, and 3 = Frequently. Total scores of 0-3 indicate the student is low risk, scores of 4-8 indicate moderate risk, and scores of 9-21 indicate high risk.

Audio Recorded Scenarios

Each scenario was recorded on an mp3. The recording included four audio recorded scenarios that were originally developed by Bryant (2011), and later validated by Hood (2012). The scenarios resulted in a negative outcome for the student. Each scenario represented both a hostile and ambiguous situation depicting communication between a teacher and a student. The scenarios were worded in a way that made the situations feel more personal to the participants, as if they were the ones interacting with the teacher in the scenario. A transcript of each scenario can be found in Appendix B.

Scenario 1 (knocks off papers). The first scenario resulted in a teacher knocking papers off the student's desk. The ambiguous version of the scenario is as follows: "The teacher is walking around the room and she knocks your paper off your desk. She notices

that your papers are in the floor. She says, "Please pick those up." (Hood, 2012). The hostile version of the scenario is as follows: "The teacher is walking around the room and sees that you have a lot of papers out on your desk. The teacher walks over and flips your papers on the floor and says, "I told you to keep your area clean! You won't be going outside to recess today. If you had kept it clean your junk wouldn't be on the floor. Now pick up your mess!"

Scenario 2 (raise hand). The second scenario resulted in the teacher choosing to help another student, even though the other student and the participant both had their hands raised. The hostile version of the hand raising scenario is as follows: "One of your classmates and yourself raise your hands for the teacher's help at the same time. The teacher goes to help your classmate and says to you, "I have already helped you multiple times today and you should be able to figure this out by now!" The ambiguous version of the hand raising scenario is as follows: "One of your classmates and yourself raise your hands for the teacher's help at the same time. She goes to the other student first."

Scenario 3 (folder knocked down). The third scenario resulted in the teacher knocking the student's folder down. The hostile version of the folder scenario is as follows: "The class is preparing to take a test. The children are supposed to have a folder up to cover their tests. The teacher is handing out pencils to students. She says to you, 'you never put your folder up right away! Are you in first grade or something?' and knocks your folder down. The teacher then moves you to another seat. The ambiguous version of the folder scenario is as follows: "The class is preparing to take a test. The children are supposed to have their folder up to cover their tests. The teacher is handing out pencils to students and

knocks your folder down. The teacher sees your folder is down, and then walks over to you and moves you to another seat.”

Scenario 4 (homework redo). The fourth scenario resulted in the teacher asking the student to redo homework. The hostile version of the homework scenario is as follows: The teacher is handing back homework to the fourth grade class. She looks at you and says, ‘this is unacceptable! Your handwriting looks like a kindergartener. You better re-do this assignment if you want a grade.’ The ambiguous version of the homework scenario is “The teacher is handing back homework to the fourth grade class. She quietly walks over to you and whispers, “I don’t have your homework. So you should redo the assignment and turn it in to get a grade.” Overall, the recording contained eight situations.

Questionnaire

The participants were provided with a questionnaire that contained a transcript of the audio recording, as well as multiple choice answers for the questions (Bryant, 2011 & Hood, 2012). For each question, two multiple choice answers represented hostile intent and two choices represented ambiguous intent. To control for patterned responding the choices that represented hostile and ambiguous intent were ordered differently for each question. Questions 1, 3, 6, and 7 were ambiguous situations. Questions 2, 4, 5, and 8 were hostile situations. Refer to Appendix C for the questionnaire.

Procedures

Murfreesboro City Schools ESP staff was asked to come up with the names of children they viewed as prosocial and children they viewed as aggressive. Then staff was asked to fill out a Student Risk Screening Scale (SRSS) for those children. Children who

received scores of 0-3 (low risk) on the SRSS were invited to continue in the study as part of the prosocial group. Children who received scores of 9-21 (high risk) on the SRSS were invited to continue in the study as part of the aggressive group. Once aggressive children and prosocial children were identified through the SRSS scores, parental consent forms were given to parents. Students who received parental consent were the ones participating in the final stage of the study. The parental consent form can be found in Appendix D.

Before joining the study, an assent form (Refer to Appendix E for the assent form) was given to participants. After assent was obtained, the participant was asked to listen to 4 scenarios, each with a hostile and ambiguous version (8 situations total). The scenarios were presented via audio recording on a laptop. After listening to each situation, the participant was given a paper and pencil format of the scenarios and questions that paralleled the recording. They were then asked to choose one multiple choice answer that best reflects the teacher's intention. The participants completed the questionnaire and listened to the scenarios individually.

Scoring Procedures

The children received a score of 0 if they chose a multiple choice answer that represented intentions that are not hostile. A score of 1 was given for the answers that represented hostile intentions. The same procedure was used for both hostile and ambiguous/unclear scenarios. For the aggressive group and the prosocial group, total scores for both the 4 hostile scenarios and the 4 ambiguous/unclear scenarios were summed so comparisons could be made.

Data Analysis

Using SPSS, a *t*-test was used to determine whether or not significant differences exist when the mean scores were compared for the hostile and ambiguous scenarios for the identified prosocial and aggressive children. Hypothesis 1 stated that children identified as aggressive are more likely to exhibit hostile attributional style in the ambiguous scenarios compared to children identified as prosocial. This hypothesis was supported if the aggressive group's mean score was significantly higher than the prosocial group's mean score.

Hypothesis 2 stated that when a teacher's intentions in the scenarios are clearly hostile, both prosocial and aggressive children will be able to recognize the intentions as hostile. Based on the points derived from the responses of each group, means were calculated and a *t*-test was used to determine whether or not a significant difference existed between the groups in interpreting clearly hostile situations. This hypothesis would be supported if there was no significant difference between the 2 groups.

CHAPTER III

Results

Analysis of Ambiguous Scenario

In order to test Hypothesis 1, an independent samples *t*-test was used to compare the means of the prosocial group and aggressive group for the ambiguous scenarios. According to Hypothesis 1, it was predicted that the responses of the aggressive group would indicate hostile intent for ambiguous scenarios, much more so than the responses of the prosocial group. The aggressive group selected hostile responses for 5 out of 28 ambiguous situations (18%). The prosocial group selected hostile responses for 2 out of 24 (8%) ambiguous situations. However, independent samples *t*-test analysis indicated there was not a significant difference in the scores for the aggressive group ($M = .71, SD = .76, N = 7$) and the prosocial group ($M = .33, SD = .52, N = 6$); $t(11) = .307, p < .307$. Therefore, no hostile attribution bias was indicated in the aggressive group, based on their responses to the ambiguous situations.

The questions representing ambiguous situations (1, 3, 6, and 7) were analyzed separately to determine if significant differences existed for individual questions. No statistically significant differences were found for question 1 ($p < .433$) or question 6 ($p < .356$). Questions 3 and 7 could not be analyzed in SPSS because the means of both groups was 0, meaning none of the participants selected an answer representing hostile intent for those questions.

Analysis of Hostile Scenarios

The procedures that were used for the ambiguous scenarios were used to analyze the hostile scenarios. Hypothesis 2 stated that the prosocial and aggressive students would be accurate in recognizing overtly hostile scenarios and that no difference would exist between the groups. An independent samples *t*-test analysis indicated there was a significant difference in the scores for the aggressive group ($M = 2.4, SD = 1.72, N = 7$) and the prosocial group ($M = .33, SD = .52, N = 6$); $t(11) = .307, p < .015$. The aggressive group selected hostile responses for 17 of the 28 hostile situations (61%). The prosocial group selected hostile responses for 2 of the 24 (8%) hostile situations.

CHAPTER IV

Discussion

The aim of this study was to expand upon the results found by Dodge and colleagues (e.g., Dodge, 1980; Dodge & Coie, 1987; Dodge & Frame, 1982; Dodge & Newman, 1981; Dodge, Price, Backororski, & Newman, 1990; Dodge & Somberg, 1987) regarding the existence of hostile attribution bias in children with aggressive tendencies. Dodge and colleagues consistently found differences in the way aggressive and nonaggressive children interpreted the actions of their peers. Aggressive children, more often than not, attributed the actions of their peers as being hostile in situations where the intent of the peer was ambiguous. Nonaggressive children were more likely to give peers the benefit of the doubt and did not automatically assume that others are acting with malicious intent. Jayna Dotson (2008), in her thesis research, sought to explore whether a hostile attribution bias existed towards teachers, not just peers, for aggressive children. Through utilization of BASC-2 self-rating reports, Dotson (2008) found that aggressive children tended to have poorer attitudes towards school and teachers than prosocial children. The BASC-2 results suggested to Dotson (2008) that a possible hostile attribution bias exists for aggressive students toward their teachers, not just their peers. Bryant (2011), in her thesis research, extended the research of Dotson (2008), but modeled the design of her study to resemble the initial work of Dodge by using scenarios. Bryant's (2011) results did not indicate that a hostile attribution bias existed for aggressive children. No meaningful difference was found between the two groups regarding their responses to the ambiguous scenarios. However, a small difference was found for the overtly hostile scenarios, though it was hypothesized that

a difference would not exist. Oddly enough, the prosocial children were better at predicting the teacher's intent as hostile than the aggressive children. Nevertheless, several limitations were noted by Bryant (2011). Adequate agreement was not found for five of the eight scenarios used for the questionnaire. Therefore, Bryant (2011) concluded that results of her study should be interpreted with extreme caution, due to poor validity of the scenarios

Hood (2012) in her thesis research was able to increase the validity ratings of the five previously used Bryant (2011) scenarios through focus groups with teachers, school psychology graduate students, and middle school students. The new version of the scenarios and questionnaire was used in this study in order to continue to explore the possibility of a hostile attribution bias in aggressive children toward their teachers. The hypothesis that aggressive children would select more answer choices indicating hostile intent for ambiguous situations was not supported. In fact, only 18% of the responses represented hostile intent for ambiguous situations for the aggressive group. For the prosocial group, only 8% of the responses indicated hostile intent for the ambiguous situations. Bryant's (2008) study yielded similar results, finding that around 80% of aggressive and prosocial children interpreted the intentions of the teacher to be benign rather than hostile for ambiguous conditions. The current study found around 84% of aggressive and prosocial children interpreted ambiguous situations as benign rather than hostile. Several things could have influenced the answer choices of the students. One aggressive student was noted saying, "I'm trying to be as reasonable as possible" when filling out the questionnaire. Though students were ensured the answers were anonymous and to imagine themselves in the situation, the students may have erred on the side of caution and could have been "faking

good” by selecting answers that made themselves look better. Three students were observed to change their answers from hostile intent to ambiguous intent during the administration of the questionnaire on hostile scenarios.

A significant difference was found for the aggressive and prosocial children regarding the responses to the hostile situations, though it was hypothesized that the groups would provide similar responses. Sixty – one percent of the answers provided by aggressive children correctly identified hostile intent, and only 8% of the answers of prosocial children were correct. According to the research of Dodge and colleagues (e.g., Dodge, 1980; Dodge & Coie, 1987; Dodge & Frame, 1982; Dodge & Newman, 1981; Dodge, Price, Backororski, & Newman, 1990; Dodge & Somberg, 1987), as well as the meta-analysis conducted by Orobio de Castro et al. (2002), a significant difference should not have existed for the prosocial and aggressive children. In her thesis research study, Bryant (2011) actually found that prosocial children were more accurate in identifying hostile intentions than aggressive children. However, Bryant did not report validity research for the screener used to identify aggressive and prosocial groups. Therefore, the Student Risk Screening Scale (1994; Drummond) that has a strong body of validity research was included in the current study to increase the likelihood of identifying kids who are truly aggressive. Furthermore, the lack of validity of the screener created by Doston (2008) and questionnaire created by Bryant (2011) made interpretation of the results difficult. However, Bryant concluded that the responses could indicate that both prosocial and aggressive children view teachers as authority figures and are less likely to view hostile actions of the teacher as being wrong. Children are taught to respect authority figures and not to question their actions. Peers, on the other hand, are

considered equal and one child does not have professional authority over another child. By not recognizing the intent of a teacher as being hostile when it clearly is, students may be more vulnerable to teacher bullying. In the current study, prosocial children, by their very nature, typically defer to authority and do not view hostile behavior by teachers as being inappropriate. Aggressive children, on the other hand, are more likely to show defiance and react with more aggression if a teacher interacts with them in a hostile way. Teacher hostility more likely leads to power struggles or further disruption from aggressive students.

The failure of prosocial students in the current study to identify overtly hostile interactions could also be due to the fact that they had a hard time imagining themselves in such a situation. Prosocial students do not evoke hostile reactions from teachers as aggressive children may do, because they do not engage in behaviors that require the teacher to respond in a negative way. The aggressive students were perhaps much more adept at recognizing the hostile intent of the teacher in the scenarios because they are used to being admonished by school personnel. However, 39% of the responses by the aggressive children were incorrect in identifying hostile intent, meaning aggressive children are also vulnerable to being mistreated by teachers as Bryant (2011) suggested.

Another possibility is that the students recognized that there were two versions of the scenarios, and felt they had to answer accordingly. A couple of students made comments expressing confusion or frustration over hearing the same question, only to realize that a fundamental difference existed for the questions: in one scenario the teacher is being mean, in the other she is not. What is most perplexing regarding the students recognizing the teacher as being overtly hostile is that they still chose answers representing benign intent

(especially the prosocial children). As stated before, even if the children recognize the teacher as acting in a hostile way, they may feel the teacher is justified in doing so.

Limitations

Several limitations need to be considered when interpreting the results of this study, the most critical being the number of participants. Due to time constraints and parental consent rejections, only 13 participants were included in the final analysis. Furthermore, groups were not matched based on gender, age, socioeconomic status, or race. The inclusion of both males and females deviates from a few of the male only studies conducted by Dodge (e.g., Dodge, 1980; Dodge & Coie, 1987; Dodge & Frame, 1982; Dodge & Newman, 1981; Dodge & Somberg, 1987). Also, even though the questionnaire was validated, the students may have had difficulty actually placing themselves in the situations. Another possibility is that even if the students placed themselves in the situation, they did not answer truthfully. Finally, even though the SRSS is a scientifically validated screener, it rates children on multiple factors, not just aggression. The SRSS also does not delineate between the types of aggression exhibited by the students, such as relational and overt aggression. Another factor to consider is the audio recordings of the scenarios. Hood (2012) recorded the scenarios included in her study, and the author of the current study recorded the remaining scenarios. The scenarios revised by Hood were validated with the recordings of her voice. Since the remaining scenarios received adequate validation from Bryant (2011), the recordings by the author of the current study were not validated in any way. The aim of including both voices was to increase generalization of the questionnaire, but students may have recognized one voice as being the voice of the administrator of the questionnaire.

Future Directions

Despite inclusion of more empirically validated measures, hostile attribution bias was not indicated for aggressive elementary age students. However, a meaningful difference did exist for the two groups regarding accurate recognition of hostile intent. Prosocial students failing to recognize overtly hostile behavior of teachers puts them at risk for being mistreated by authority figures. The same applies to aggressive students, even though they were significantly more accurate in identifying hostile intentions.

It is highly recommended that future research include many more participants and include in the analysis factors such as gender, age, race, and socioeconomic status. Also, in addition to using the SRSS, an additional assessment to further screen for aggression should be utilized. It would also be interesting to see how students would react in similar situations, not just how they interpret them. A child may recognize that a teacher is being mean, but they may ignore the hostility and justify it simply because teachers are expected to do no wrong. However, if students indicate that they would react angrily to a hostile provocation by a teacher, it would be beneficial in enlightening teachers on reasons to avoid yelling, belittling, engaging in power struggles, etc., as it could lead to further classroom disruption.

Future research should also include a measure of hostile attribution toward peers, as well as teachers, in order to control for the potential issue of lack of a hostile attribution bias in the aggressive group. If a future study confirms a hostile attribution toward peers but not teachers, it will be more evidence that children are more likely to excuse mistreatment from adults simply because of their status as authority figures. Children may learn that engaging in hostile behaviors toward children as an adult is acceptable. Also worth noting is that

children who are labeled as “aggressive” may be more easily able to identify hostile behavior from adults because they are used to it. Aggressive children may be unfairly accused or mistreated simply because of their reputation.

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APPENDICES

APPENDIX B

Transcript of Recording

- 1.) The class is preparing to take a test. The children are supposed to have their folder up to cover their tests. The teacher is handing out pencils to students and knocks your folder down. The teacher sees your folder is down, and then walks over to you and moves you to another seat. Why do you think the teacher knocked your folder down and moved you? A: The teacher always knocks down my stuff. B: The teacher moved me so she wouldn't knock my folder down again. C: The teacher thinks I cheat so she wants to move me. D: the teacher did not mean to knock my folder down.
- 2.) One of your classmates and yourself raise your hands for the teachers help at the same time. The teacher goes to help your classmate and says to you, "I have already helped you multiple times today you should be able to figure this out by now!" Why did the teacher help the other student first? A: She likes him better than she likes you. She always has favorites. B: She knows you know how to do the work. C: She is tired of having to help you. D: She is trying to help you learn the information on your own.
- 3.) The teacher is handing back homework to the fourth grade class. She quietly walks over to you and whispers, "I don't have your homework. So you should redo the assignment and turn it in to get a grade." Why is the teacher making the student redo your homework? A: The teacher is not sure you turned in your homework. B: The teacher thinks you are a bad student. C: The teacher wants to make sure you get a grade for your homework. D: The teacher wants you to get a bad grade.
- 4.) The teacher is walking around the room and sees that you have a lot of papers out on your desk. The teacher walks over and flips your papers on the floor and says, "I told you to keep your area clean! You won't be going outside to recess today. If you had kept it clean your junk wouldn't be in the floor. Now pick up your mess!" Why did the teacher flip your papers on the floor? A: The teacher did not mean to knock the papers off your desk. B: The teacher lost her balance and knocked your papers off on accident. C: The teacher always does mean stuff to you. D: The teacher likes to embarrass you.
- 5.) The class is preparing to take a test. The children are supposed to have their folder up to cover their tests. The teacher is handing out pencils to students. She says to you, "You never put your folder up the right way! Are you in first grade or something?" and knocks your folder down. The teacher then moves you to another seat. Why do you think the teacher knocked your folder down and moved you? A: The teacher

thinks you are a bad student. B: The teacher is trying to help me learn. C: The teacher wants me to do my best. D: The teacher thinks I only get bad grades.

- 6.) One of your classmates and yourself raise your hands for the teachers help at the same time. She goes to help the other student first. Why did she help the other student first? A: She has favorites in the classroom and I am not one of them. B: She tries to spend time helping everyone. C: The other student was sitting closer to her. D: She does unfair things like that to me all of the time.
- 7.) The teacher is walking around the room and she knocks your papers off your desk. She notices that your papers are in the floor. She says, "Please pick those up." Why did the teacher knock the papers off your desk? A: The teacher did not notice that she was the one who knocked the papers off the desk. B: The teacher does not like you. C: The teacher lost her balance and knocked your papers off on accident. D: The teacher always does mean things like that to you.
- 8.) The teacher is handing back homework to the fourth grade class. She looks at you and says, "This is unacceptable! Your handwriting looks like a kindergartener. You better re-do this assignment if you want a grade." Why is the teacher making the student redo his homework? A: The teacher thinks you are a bad student. B: The teacher is trying to help me learn. C: The teacher wants me to do my best. D: The teacher thinks I only get bad grades.

APPENDIX C**Student Questionnaire**

- 1.) The class is preparing to take a test. The children are supposed to have their folder up to cover their tests. The teacher is handing out pencils to students and knocks your folder down. The teacher sees your folder is down, and then walks over to you and moves you to another seat.**

Why do you think the teacher knocked your folder down and moved you?

- A. The teacher always knocks down my stuff.
- B. The teacher moved me so she wouldn't knock my folder down again.
- C. The teacher thinks I cheat so she wants to move me.
- D. The teacher did not mean to knock my folder down.

- 2.) One of your classmates and yourself raise your hands for the teachers help at the same time. The teacher goes to help your classmate and says to you, "I have already helped you multiple times today you should be able to figure this out by now!"**

Why did the teacher help the other student first?

- A. She likes him better than she likes you. She always has favorites.
- B. She knows you know how to do the work.
- C. She is tired of having to help you.
- D. She is trying to help you learn the information on your own.

- 3.) The teacher is handing back homework to the fourth grade class. She quietly walks over to you and whispers, "I don't have your homework. So you should redo the assignment and turn it in to get a grade."**

Why is the teacher making the student redo your homework?

- A. The teacher is not sure you turned in your homework.
- B. The teacher thinks you are a bad student.
- C. The teacher wants to make sure you get a grade for your homework.
- D. The teacher wants you to get a bad grade.

- 4.) The teacher is walking around the room and sees that you have a lot of papers out on your desk. The teacher walks over and flips your papers on the floor and says, "I told you to keep your area clean! You won't be going outside to recess today. If you had kept it clean your junk wouldn't be in the floor. Now pick up your mess!"**

Why did the teacher flip your papers on the floor?

- A. The teacher did not mean to knock the papers off your desk.
- B. The teacher lost her balance and knocked your papers off on accident.
- C. The teacher always does mean stuff to you.
- D. The teacher likes to embarrass you.

5.) The class is preparing to take a test. The children are supposed to have their folder up to cover their tests. The teacher is handing out pencils to students. She says to you, "You never put your folder up the right way! Are you in first grade or something?" and knocks your folder down. The teacher then moves you to another seat.

Why do you think the teacher knocked your folder down and moved you?

- A. The teacher thinks you are a bad student.
- B. The teacher is trying to help me learn.
- C. The teacher wants me to do my best.
- D. The teacher thinks I only get bad grades.

6.) One of your classmates and yourself raise your hands for the teachers help at the same time. She goes to help the other student first.

Why did she help the other student first?

- A. She has favorites in the classroom and I am not one of them.
- B. She tries to spend time helping everyone.
- C. The other student was sitting closer to her.
- D. She does unfair things like that to me all of the time.

7.) The teacher is walking around the room and she knocks your papers off your desk. She notices that your papers are in the floor. She says, "Please pick those up."

Why did the teacher knock the papers off your desk?

- A. The teacher did not notice that she was the one who knocked the papers off the desk.
- B. The teacher does not like you.
- C. The teacher lost her balance and knocked your papers off on accident.
- D. The teacher always does mean things like that to you.

8.) The teacher is handing back homework to the fourth grade class. She looks at you and says, "This is unacceptable! Your handwriting looks like a kindergartener. You better re-do this assignment if you want a grade."

Why is the teacher making the student redo his homework?

- A. The teacher thinks you are a bad student.
- B. The teacher is trying to help me learn.
- C. The teacher wants me to do my best.
- D. The teacher thinks I only get bad grades.

APPENDIX D
Middle Tennessee State University Institutional Review Board
Informed Consent Document for Research
 Informed Consent for Parents

Principal Investigator: Sarah Ann Smith

Study Title: Aggressive vs. Non-aggressive Children: Exploring Differences in Attributional Styles Toward Teachers

Institution: Middle Tennessee State University

Name of participant _____ **Age** _____

Dear Parent or Guardian,

The following information is provided to inform you about the research project and your child's participation in it. Please read this form carefully and feel free to ask any questions you may have about this study and the information given below. You will be given an opportunity to ask questions, and your questions will be answered. Also, you will be given a copy of this consent form.

Your child's participation in this research study is voluntary. He or she is also free to withdraw from this study at any time. In the event new information becomes available that may affect the risks or benefits associated with this research study or your willingness to participate in it, you will be notified so that you can make an informed decision whether or not to continue your participation in this study.

For additional information about giving consent or your rights as a participant in this study, please feel free to contact the MTSU Office of Compliance at (615) 494-8918.

1. Purpose of the study:

Your child is being asked to participate in a research study because I am hoping to develop a better understanding of the relationship between teachers/caretakers and students.

2. Description of procedures to be followed and approximate duration of the study:

Your child will listen to an audio recording that depicts scenarios of a teacher doing something that results in a negative outcome for the student. Some of the interactions are neutral and some are hostile. After each scenario is presented your child will be asked to answer multiple choice questions regarding why the child felt the teacher behaved the way she did. The process should take 15-30 minutes.

3. Expected cost:

There are no costs associated with participation in this research study.

4. Description of the discomforts, inconveniences, and/or risks that can be reasonably expected as a result of participation in this study:

Your child will be removed from his or her after school activity briefly.

5. Compensation in case of study-related injury:

Middle Tennessee State University will not provide compensation in the case of study related injury.

6. Anticipated benefits from this study:

A.) The aim is to further understand the way in which children interact with those around them, particularly teachers and others in positions of authority. The teacher/student dynamic is of utmost importance and information gleaned from this study could potentially help teachers/caregivers/parents understand and acknowledge communication skills deficits in aggressive children. Positive interactions between teachers/caretakers and children increase opportunities for academic and social success

B.) The potential benefits to your child from this study are indirect. Your child may feel a sense of accomplishment and esteem from volunteering to help with the study.

7. Alternative treatments available:

Not applicable or relevant for this study.

8. Compensation for participation:

There are none expected.

9. Circumstances under which the Principal Investigator may withdraw you from study participation:

None are anticipated unless you or your child decides not to participate at any time.

10. What happens if you choose to withdraw from study participation:

Nothing will happen. If you choose to withdraw and information has already been obtained from school or the participant it will be shredded.

11. Contact Information:

If you should have any questions about this research study or possible injury, please feel free to contact (**Sarah Ann Smith**) at (**843-907-0933**) or my Faculty Advisor, (**Dr. Monica Wallace**) at (**615-898-2165**).

12. Confidentiality:

All efforts, within reason, will be made to keep the personal information in your research record private but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human

Research Protections, or if you or someone else is in danger or if we are required to do so by law.

STATEMENT BY PERSON AGREEING TO PARTICIPATE IN THIS STUDY

I have read this informed consent document. I understand each part of the document, all my questions have been answered, and I freely and voluntarily choose to allow my child to participate in this study.

Date: _____

Signature of patient/volunteer: _____

Consent obtained by:

Signature

Printed Name and Title

APPENDIX E

Child Assent

Name of participant _____

Age _____

Below are the answers to some of the questions you may have. If you have any questions about what is written below or have any other questions about this research, please ask them. You will be given a copy of this assent form.

1.) Why are you doing this research? I am doing this to help children, teachers, and anybody else who works with children. I am also doing it for my school work.

2.) What will I do and how long will it take? I will play you several stories from this CD, and then I will read you some questions and you will answer them out loud. If you need a break or don't understand a question, let me know.

3.) Do I have to be in this research study and can I stop if I want to?

You are able to stop at any time. Even if we have already started, I will take you back to your activity if you wish to stop.

4.) Could it make me sick (or sicker)?

No.

5.) Will anyone know that I am in this research study?

Nobody will know except me, you, the ESP staff, and your parents. Children in your program may have seen you leave with me. You can tell them you were helping me out with my school work and that I go to college. Nobody will know how you answer these questions. If you tell me you are thinking or hurting yourself or somebody else, I will need to tell staff or your parents to keep that from happening. I will let you know that I am going to tell them if that happens.

6.) How will this research help me or other people? My goal is to better understand the way teachers and children interact with each other. You may learn some things about yourself today.

7.) Can I do something else instead of this research?

Yes. I will take you back to your activity at any time.

8.) Who do I talk to if I have questions? You can talk to me, your parents, or your teacher

Date

Signature of patient/volunteer

Consent obtained by:

Signature

Printed Name and Title

APPENDIX F

Institutional Review Board Approval Letter

February 11, 2013

Sarah Ann Smith

Sas7x@mtmail.mtsu.edu

Dr. Monica Wallace

Monica.wallace@mtsu.edu

Dept. of Psychology

Protocol Title: Aggressive and Nonaggressive Children: Exploring Differences in
Attributional Style Toward Teachers

Protocol Number: 13-205

Dear Investigator(s),

The MTSU Institutional Review Board, or a representative of the IRB, has reviewed the research proposal identified above. The MTSU IRB or its representative has determined that the study poses minimal risk to participants and qualifies for an expedited review under the 45 CFR 46.110 Category 4.

Approval is granted for one (1) year from the date of this letter for 40 participants.

According to MTSU Policy, a researcher is defined as anyone who works with data or has contact with participants. Anyone meeting this definition needs to be listed on the protocol and needs to provide a certificate of training to the Office of Compliance. **If you add researchers to an approved project, please forward an updated list of researchers and their certificates of training to the Office of Compliance (c/o Emily Born, Box 134) before they begin to work on the project.** Any change to the protocol must be submitted to the IRB before implementing this change.

Please note that any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918.

You will need to submit an end-of-project form to the Office of Compliance upon completion of your research located on the IRB website. Complete research means that you have finished collecting and analyzing data. **Should you not finish your research within the one (1) year period, you must submit a Progress Report and request a continuation prior to the expiration date.** Please allow time for review and requested revisions.

Also, all research materials must be retained by the PI or faculty advisor (if the PI is a student) for at least three (3) years after study completion. Should you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Timothy R. Graeff, Ph.D.

IRB Committee Member