Self-perceptions, peer influence, social information processing and bullying behavior

Jaime Strickler

University of Northern Iowa

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Self-perceptions, peer influence, social information processing and bullying behavior

Abstract
The purpose of this paper is to review the literature on self-perceptions of bullies, peer influence on bullying behavior, and social information processes of bullies. These three variables were chosen in an attempt to understand some of the potential causes of bullying behavior and to examine their effects during bullying episodes. While self-perceptions of bullies may be positive or negative, it is unclear as to the direction of influence between self-perceptions and bullying. Peer influence on bullying can vary from situation to situation; but it is clear that peers do have an influence in bullying episodes. The social information processing that people do in daily life determines their behavior based on their perceptions of their environments. The relationship is unclear in determining whether bullies have deficits or alternative processing skills. More research is needed to determine the precise nature of the relationship between self-perception, peer influence, and social information processing of bullies.
SELF-PERCEPTIONS, PEER INFLUENCE, SOCIAL INFORMATION PROCESSING AND BULLYING BEHAVIOR

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Jaime Strickler
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Dr. Radhi Al-Mabuk, Chair, Committee

Dr. Charlotte Haselhuhn, Committee Member
ABSTRACT

The purpose of this paper is to review the literature on self-perceptions of bullies, peer influence on bullying behavior, and social information processes of bullies. These three variables were chosen in an attempt to understand some of the potential causes of bullying behavior and to examine their effects during bullying episodes.

While self-perceptions of bullies may be positive or negative, it is unclear as to the direction of influence between self-perceptions and bullying. Peer influence on bullying can vary from situation to situation, but it is clear that peers do have an influence in bullying episodes. The social information processing that people do in daily life determines their behavior based on their perceptions of their environments. The relationship is unclear in determining whether bullies have deficits or alternative processing skills. More research is needed to determine the precise nature of the relationship between self-perception, peer influence, and social information processing of bullies.
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CHAPTER 1

INTRODUCTION

It begins with a nickname, such as “nerd” or “dork.” The nickname catches on amongst the other students in the class and replaces the child’s real name as he or she begins to lose all self-confidence. The assigned nickname leads to isolation in nearly all activities at recess, in the lunchroom, and even in the hallways. Within weeks, or even days, this child has become the focus of jokes and hurtful teasing. These daily degrading acts begin to take a toll on the targeted child, who has by now become fearful of school. His or her anxiety level escalates, the child refuses to talk in class for fear of adding more fuel to the fire, and eventually this child becomes depressed about the entire situation.

Some of the children in the classroom are beginning to notice the damaging effects of their behavior and they stop taunting this child, although they do nothing to stop the others. While some of the children stop, a small group continues to taunt this child, even escalating their actions to include physical abuse such as pinching or hitting. This child continues to endure the abuse with the hope that someday someone will notice what is happening and do something to stop it.

Statement of the Problem

In recent years, numerous stories of children who could not continue to endure abuse from their classmates have been reported. Some students have taken drastic steps in an attempt to stop it all. While some students turn to revenge to end their pain, others turn to suicide in an attempt to make it all go away. In 1998, two students who were considered outsiders attacked Columbine high school. They were targeting specific students, such as jocks, possibly in an attempt to seek revenge for years of isolation. The
true motives of the Columbine attackers may never be known, because after killing 13 classmates and teachers, they took their own lives. While the interest in bullying has been around since the late 1960’s; the media reports of tragedies such as the Columbine attack are what create a considerable degree of unease and tension among the general public, school officials, and politicians. The mass media articles, nevertheless depict the very tragic consequences to bullying that fuels a need for action, especially research into the dynamics of bullying.

**Definition of Terms**

It is extremely difficult to determine at what point behavior turns into bullying. Society has come to expect a certain degree of teasing among children, but at what point does that teasing become bullying? While the definition of bullying varies from source to source, two key components identified by Olweus (1999) are generally included. The first is repetition. A victim is often targeted numerous times over a certain period of time, which can be days to years. The second component is an imbalance of power. This imbalance can be due to physical size, the number of people involved, or psychological resilience. Part of the problem in identifying a universal definition of bullying is the lack of consistency from case to case. Each individual case of bullying behavior is different. While some components are found in the majority of cases, not a single case of bullying involves the same mechanisms. Thus, based on the two components identified by Olweus (1999), bullying can be defined as a subset of aggressive behavior characterized by repetition and an imbalance of power.

Research has demonstrated that bullying can occur anywhere. Bullying behavior has been revealed in 16 European countries, the United States, Canada, Japan, Australia,
and New Zealand (Smith, Morita, Junger-Tas, Olweus, Catalano & Slee, 1999). What is even more remarkable is the similarities that have been found in these different cultures, indicating that bullying is a human problem, not a cultural problem. Olweus (1993) found that approximately fifteen percent of the total elementary school and junior high school students in Norway were involved in bully/victim problems. Thus, one out of seven children were involved in bullying behavior at some point, whether it be as a victim, a bully, or both. These survey results are alarming, especially when one thinks of the possible outcomes associated with bullying.

These decades of research have revealed numerous aspects of the bully-victim relationship, the effects of bullying on the victim, and the effects on the bully himself/herself. The dynamics that are involved in the bully-victim relationship vary from situation to situation, but the key element appears to be an imbalance in the relationship (Olweus, 1993). As the percentage of students who are bullied decreases with higher grades, the percentage of students bullying increases with higher grade levels, indicating an inverse relationship (Olweus, 1993; Sourander, Helstela, Helenius, & Piha, 2000). Another interesting aspect is the likelihood that a bully is also a victim at some point. It was previously thought that the bully and victim groups were mutually exclusive, but research has demonstrated that this is not the case (Olweus, 1993; Smith et. al. 1999). This blurring of the lines of the groups involved in bullying has made the identification of characteristics of these groups difficult. However, certain characteristics have been identified.

As with any form of abuse, the victim of bullying suffers greatly. He or she is often anxious, insecure, sensitive, physically weaker, and have low self-esteem (Olweus,
1993; Fried & Fried, 1996; Harachi, Catalano, & Hawkins, 1999). In addition to possessing these characteristics, the child manifests them in their daily activities, thus making them vulnerable to others. These characteristics may exist within the child before being bullied, but they increase in severity after bullying. These same studies indicate that long-term problems such as depression, difficulty adjusting to new situations, and are more likely to be referred for psychiatric consultation (Dawkins, 1995; Kampulainen, Rasanen, Henttonen, Almqvist, Kresanov, Linna, Moilanen, Piha, Puura & Tamminen 1998). While many victims of bullying may demonstrate some of these characteristics, not every victim will. Each person reacts to an event in a different manner, thus creating different outcomes. The same is true in how different people approach a situation.

Bullies are often depicted in the media as highly aggressive children with low self-esteem who gain popularity and attention through degrading others. While these characteristics may be representative in some cases, they are not generally characteristic of each bully. Some of the characteristics that bullies may possess are impulsivity, a need to dominate others, a positive view of themselves, physically stronger, and a positive attitude toward aggression (Olweus, 1993; Fried & Fried, 1996; Harachi, Catalano, & Hawkins, 1999). These researchers also found that popularity is a characteristic for younger bullies, but this popularity decreases with age. The long-term consequences for bullies are usually very sobering. In a longitudinal study conducted by Eron, Huesmann, Dubow, Romanoff, & Yarmel (1987), twenty-two years after a child was identified as a bully he/she had a one in four chance of having a criminal record by the age of 30 compared to a one in twenty chance for other children. This statistic alone
indicates the need to research the causes of bullying in an attempt to create an intervention to stop its occurrence.

**Organization of the Paper**

Most of the research conducted on bullying focuses on the relationship between the bully and the victim or the effects of bullying on the victim, rather than on the psychology of the bully or the contextual elements of bullying behavior. In order to create effective interventions, an understanding of why the behavior occurs is essential. The focus of this paper is the self-concept and attribution processes of the bully, as well as the group dynamics associated with bullying. While these areas have received some attention in recent years, it does not appear to be enough because few intervention strategies have followed the results of these studies.
CHAPTER 2
REVIEW OF LITERATURE

This chapter includes a review of the literature on bullying and is organized in three major parts: (1) self-perceptions of bullies, (2) peers and bullying, and (3) social information processing and bullying.

Self-perceptions of bullies

How a person perceives himself/herself can influence his/her daily emotions, thoughts, and behaviors. When these behaviors deviate from the norm, such as bullying behavior, the question of how this person's self-concept differs fuels great debate and research. Research in the past few years has focused on determining how a bully's self-concept differs from the average child. It is important to note that self-perception can refer to a wide variety of concepts including self-esteem, self-concept, and self-efficacy. These multiple related concepts make reviewing the literature on this topic difficult because the measurement of each concept is clearly related to how a person feels about himself/herself, yet they each pertain to different more specific characteristics. For example, the term self-esteem means "a confidence and satisfaction in oneself" while self-concept refers to "the mental image one has of oneself" (Hoiberg, 2001). These differences in what was measured in these various studies make interpretation difficult, though not impossible, and may contribute to the varying results reported. While the results have proven inconclusive in determining the relationship between bullying behavior and self-esteem, some interesting findings have developed.

Being a bully may relate to many personality factors including self-esteem, levels of happiness, and liking for school. These relationships were investigated by Rigby and
Slee (1993) in an attempt to determine the differences between bullies and those not involved in bullying. Adolescents between the ages of 12 and 18 comprised the sample of 1,162 students who completed the questionnaires related to bullying, self-esteem, liking for school, and overall happiness. The self-esteem of the bullies was found to be slightly above average, while their overall happiness and liking for school was slightly less than average. This dislike for school should be expected, considering that students who bully would most likely be in trouble more often at school. This overall finding of above average self-esteem of bullies contradicts what generally is expected of aggressive students.

In 1982, Bjorkqvist, Ekman, and Lagerspetz conducted a study to determine how adolescent bullies view themselves, how it differs from how they would like to be, and how they feel the social norms require them to be. A measure of self-esteem was created by the discrepancy between how these students' viewed themselves and how they would like to be. These perceptions of bullies were then compared with the perceptions of average students, who were not directly involved in bully/victim situations. Peer ratings were done in order to determine which categories students fell into, bullies, victims, or control. The participants all completed questionnaires related to their current status, ideal status, and normative status in the seven factors of intelligence, dominance, dominated by feelings, perseverance, depression, impulsiveness, and personal attractiveness.

The results indicated some important differences between bullies and the other groups. On the scale of dominance, bullies felt their ideal status was much higher than the other groups' ideals and bullies felt that the social norms required more dominance. Bullies also scored higher than the control group on impulsiveness and slightly higher on
dominated by feelings. All of the other scales indicated that bullies fell within the same range as average children, thus indicating no real differences in terms of self-perceptions. The higher expectations for dominance, impulsiveness, and domination by emotions indicate that bullies may be motivated by desires to fit society's norms, as well as a lack of control in certain situations.

The issue of control was also studied in 2000 by Andreou, by investigating the relationship between bullying behavior and three psychological concepts: self-esteem, Machiavellianism, and locus of control. Scales relating to these three concepts, as well as bullying, were completed by 181 third through sixth grade students. The findings indicated that when a child scored high on the bullying scale, he or she scored lower on scales of scholastic competence, social acceptance, behavioral conduct, and global self-worth. These results indicated that bullies tend to have lower self-esteem related to academic achievement and social acceptance. High scores on the bullying scale also indicated high Machiavellianism and a low internal locus of control belief, which is supported by the findings of Bjorkqvist, Ekman, and Lagerspetz (1982).

The inclusion of more than one area in determining the self-esteem of bullies led O'Moore and Kirkham (2001) to conduct a study that included multiple areas of perceived competence. This study also included a very large sample size of 13,112 children ages eight to eighteen years. These students completed a self-report questionnaire on school bullying and the Piers-Harris Concept Scale. This scale included subscales related to global self-esteem, behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, and happiness and satisfaction.
The results of these questionnaires indicated some interesting differences between those who bully and those who do not. The global self-esteem scores of the children who reported bullying were lower than those students who had not bullied. The results further indicated that the more frequently the children were involved in bullying, the lower these scores of global self-esteem were. These results were found for all ages involved in the study. Those children in primary school who bullied demonstrated greater feelings of inadequacy in relation to behavior, intellectual and school status, physical appearance, anxiety, popularity, and happiness and satisfaction. Adolescents involved in bullying perceived themselves as more troublesome, to have lower intellectual and school status, and to be more unhappy and dissatisfied. An interesting finding related to the anxiety level of the adolescent bullies. They were found to be the least anxious of all other groups in their age level, as well as rating themselves more physically attractive and popular than the other groups. These higher levels of confidence in these areas may explain why bullies are perceived to be more confident than they actually are in some circumstances.

The perceptions that peers have of bullies' self-esteem were investigated by Salmivalli, Kaukiainen, Kaistaniemi, and Lagerspetz (1999) in an attempt to compare the peer-evaluated self-esteem to the self-evaluated self-esteem of bullies. Adolescents ages 14 to 15 comprised the sample of 316 eighth graders. These students completed the Rosenberg Self-Esteem Scale, which included a section for peer evaluations for each member of the class. They also completed a Participant Role Questionnaire to determine their bullying behavior. The results indicated no significant differences between peer evaluations and self-evaluations of self-esteem of bullies and indicated few differences.
between bullies and those not involved in the bullying situation in terms of self-esteem. Thus, this study corroborates the theory that bullies do not differ from their peers in terms of their levels of self-esteem.

Johnson and Lewis (1999) found similar results in their study on self-perceptions of bullies. The self-concept, socially and academically, and self-esteem of adolescent bullies was investigated to determine if significant differences existed between this group and students that were not involved in bullying behavior. The 212 participants consisted of tenth graders and completed self-report surveys, to determine their bully status, as well as the Perceived Competence Scale for Children, which has four scales related to athleticism, social, scholastic, and global self-worth.

The results of this study indicated that students involved in bullying behavior were not significantly different from their peers in their self-perceptions of social competence and self-esteem, with both groups falling above average. The scholastic self-concept of students involved in bullying was slightly lower than those not involved, but this was not found to be statistically significant. These results indicate that the bullies involved in this study thought of themselves as fairly popular individuals with areas of concern related to academic achievement, which was also reported by Andreou (2000).

The many contradictions surrounding the issue of self-esteem of bullies has led many to research the topic in more depth. In 2001, Marsh, Parada, Yeung, and Healey investigated the issue of self-esteem and bullying behavior in an attempt to find support for the theory that bullying behavior increases self-esteem. Thus, bullying behavior is a means for students to raise their self-esteem levels to an average range, which explains the various contradictory results of previous studies. This longitudinal study included
4,216 participants in eighth through twelfth grades. The students completed three self-concept scales and self-reports relating to their bullying behaviors at three points in their educational careers: eighth grade, tenth grade, and twelfth grade.

While the results indicated that the self-esteem levels of bullies were slightly lower than average, an interesting pattern evolved. The students who were found to be bullies had the lowest self-esteem levels in grade eight. However, their self-esteem levels increased in tenth grade, thus indicating that their bullying behavior did not decrease their self-esteem levels over that particular time period. Marsh et. al. posited that these students engage in bullying in an attempt to gain more self-esteem. These effects were not found between tenth and twelfth grades, indicating that bullying behavior does not provide the same effects as children progress through school.

This theory finds further support in Natvig, Albrektser, and Qvarnstrom's 2001 study. The sample included 885 students ages thirteen, fourteen and fifteen. The information was obtained through questionnaires relating to bullying, self-efficacy beliefs, social support, and decision control. The results indicated that students at age thirteen with high self-efficacy were at a lower risk for bullying. However, students ages fourteen and fifteen with high self-efficacy levels were at a high risk for bullying behavior. These results indicate that high self-efficacy is not a predictor of bullying behavior, but rather an effect of being a bully once the child reaches a particular age. The finding that high self-efficacy is associated with bullying lends further support to the theory presented by Marsh et. al.

In summary, these studies provide contradictory information regarding the self-concept's of bullies. While some provide support for low levels of self-esteem in bullies,
others provide support for slightly above average levels of self-esteem in bullies. When the concept of self-esteem is broken down into multiple areas, it has been demonstrated that bullies have high levels of self-esteem related to their dominance, physical attractiveness, and popularity. Low levels of self-esteem have been associated with academic achievement and social acceptance. Thus, while bullies may feel popular, they may also feel less accepted in the social area. Bullies have also demonstrated that they can be more impulsive, unhappy, and dissatisfied. While these findings do not indicate a clear answer to the question of the relationship of bullying and self-esteem, they do provide important clues related to the issue.

Peers and bullying

A student may bully for any number of reasons, but, as with any behavior, something must be achieved in order for the behavior to continue. A student may gain a toy that he or she wanted, a place in line, or even a group of friends based on their bullying behavior. Other than physical items gained through bullying, more important reinforcement for this behavior may be the student’s peers, whether it is intentional or not. More often than not, bullying occurs in social situations with an audience (Olweus, 1993; Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukiainen, 1996; Bjorkqvist, Ekman, & Lagerspetz, 1982). This audience of peers may inadvertently reinforce the bully’s behavior by simply observing the situation or by considering the bully their friend. A peer may go a step further and laugh at the victim with the bully or even join in the bullying. In either situation, these peers, whether they realized it or not, were contributing to the bullying by encouraging the bully.
O’Connell, Pepler and Craig (1999) conducted a study to examine the roles the peers play in bullying situations. Based on a previous study they conducted, they uncovered that while children are aware of a bullying situation and express unease about it, they rarely intervene to help the victim (O’Connell et al., 1997). They hypothesized that a diffusion of responsibility occurred during bullying situations, thus reducing their probability to intervene. This hypothesis led to their 1999 study to examine the effects that bullies have on peers and peers have on bullies. They hypothesized that bullies model for peers, thus demonstrating that aggression can be successful and without consequences. In turn, peers reinforce bullies by their attention and engagement in the bullying situations.

To test these hypotheses, O’Connell et al. videotaped groups of children ages five through twelve while playing with other children on the playground. These focal children were part of a larger study, in which they provided self-report information on bullying, peer nominations of bullies/victims, and teacher nominations. The children wore waist pouches containing wireless FM transmitters, while the children not involved wore empty pouches. Video equipment was placed around the playground and each child was taped for ten minutes at each observation phase. A total of 120 hours of video tape was collected over three years, from a sample of 120 children each year.

From these data, 185 video segments contained bullying. Approximately 53.5% of these bullying segments included a peer group (two or more peers). Fifty-three of the bullying segments that contained a peer group were included in the final sample, due to poor picture quality and multiple bullying situations with the same bully. The average number of peers involved was four, but the range was from two to fourteen. As the
number of peers increase, so did the length of the bullying episode. Peers acted as reinforcement for the bullying in multiple ways including physically or verbally joining in 20.7% of the time and watching 53.9% of the time. Peers intervened 25.4% of the time. Thus, 74.6% of the bullying episodes included reinforcement from peers. Also, the fact that the length of the bullying episode increased as more peers became involved clearly demonstrates that peers influence bullying.

Clearly the presence of peers influences bullies, but the question of how peers are directly involved has led to further research on this topic. Salmivalli et al. (1996) investigated specifically what other students do when a bully is harassing a victim. They also wanted to investigate how well students were aware of their roles and how social status related to these roles. 573 children aged twelve to thirteen completed questionnaires relating to self-perceived roles in bullying situations, peer-perceived roles in bullying situations, and a sociometric part to determine group status. The questionnaire contained five subscales that became the roles that children fit into: bully, reinforcer of the bully, assistant to the bully, defender of the victim, and outsider. Bullies were actively involved in the bullying with a leader role. Assistants were also actively involved, but more of a follower than a leader. Reinforcers contribute to the bullying by laughing, watching, and being present. Defenders make active efforts to stop the bullying, while outsiders do nothing and stay outside of the situation. Children were further divided into sociometric groups of popular, rejected, neglected, controversial, and average based on peer nominations of who was liked the most/least.

The most common roles identified were outsider, reinforcer, and defender. Peer estimates and self-perceived participation in the role of bully were very different.
Students underestimated their tendency to act as a bully and overestimated their tendency to act as a reinforcer, defender, and outsider. This tendency to underestimate aggressive acts and overestimate prosocial/withdrawing behavior indicates that these children want to be viewed in a positive light and understand that aggressive behavior is not the way to achieve that goal.

The results of the status groups' questions revealed that those students who were classified as assistants and reinforcers were considered popular, while defenders of the victim scored the highest for social acceptance. Bullies fell into either the rejected category or the controversial category, which indicates that bullies are viewed as aggressive, but also as social leaders (Coie, Dodge, & Cappotelli, 1982). In a two-year follow up study, these roles had remained stable, with a slight increase in the number of bullies and assistants. This like/dislike relationship of bullies may indicate why they perceive themselves as popular, but at the same time not socially accepted (O'Moore & Kirkham, 2001; Andreou, 2000).

In order to clarify the roles that peers play in social situations, Cairns, Carins, Neckerman, Gest, and Gariepy (1988) interviewed and observed 80 fourth and seventh graders regarding their aggressive behavior. The children were matched by sex, race, classroom, physical size, socioeconomic status, and chronological age. The only difference in a pair was their level of aggressiveness, either highly aggressive or nonaggressive. Teachers, counselors, and principals nominated children as highly aggressive or nonaggressive based on their experiences with the child. These children completed questionnaires regarding their roles in social networks, nominated peers as aggressive or best friends, and completed competency scales relating to aggression,
popularity, and academic success. The researchers then interviewed and observed the children in their classrooms in an attempt to validate the results identified through these measurements.

Based on these measures, aggressive children were found to be less popular than controls, yet their self-rated popularity was the same as the controls. Also, there were no differences between the groups in terms of how often they were nominated by peers as “best friend”. This finding further adds to the view of bullies as controversial individuals in the social setting. Further analysis revealed that aggressive participants tended to hang out with aggressive peers. This indicates that their aggressive behavior is accepted and encouraged by their social network. While bullying may be unacceptable to some peers, it appears to be accepted and encouraged by others.

Similar findings were reported by Boulton and Smith (1994). This study investigated the peer perceptions of bullies, victims, and those not involved as well as the relationship between bully/victim status and peer acceptance or rejection. Students were observed in the classroom, interviewed, and completed the Self-Perception Profile for Children on four occasions over the course of a year (October, March, June, and October). Peer nominations were also obtained at each of these points to determine sociometric status and bully/victim status.

The results revealed that 12.7% of the sample was considered bullies, which was a fairly stable percentage throughout the study. No significant differences emerged between the groups in relationship to self-perceived competence in any of the six areas (scholastic, social, athletic, physical, behavioral, and global). In relation to peer perceptions, bullies received more “starts fights”, “disrupts”, and “leader” nominations
than any other group. Bullies also occupied the rejected and controversial groups pertaining to sociometric status more often than the victims or not involved children. The combination of the finding of bullies as leaders as well as disliked lends further support to the idea of bullies as controversial. While they appear to have supportive social networks, other peers also negatively perceive them. However, these peers see bullies as leaders, which can be viewed as a positive attribute. This controversial view of bullies may lead to further bullying behavior.

This controversial standing of bullies may be explained by the qualitative differences in their bullying behavior. For example, some bullies may act aggressively in response to a personal attack while others act aggressively to obtain something. Peers may view these differences and form different impressions of the students involved, thus creating both liked and disliked students that all fall into the category of bullies. In 1991, Coie, Dodge, Terry, and Wright investigated these issues by observing groups of elementary aged children in playgroups. These groups were formed based on age (first or third grade) and sociometric status, two average status boys, two rejected boys, one popular boy, and one neglected boy. These children had no prior acquaintance with one another and were classified in sociometric status and aggressive status based on peer nominations.

These play groups met for five 45-minute sessions during one week of the summer. These supervised sessions were structured for the first half and involved free play in the second half. The supervisor of these sessions left the room for ten minutes during each half of the session, thus allowing twenty minutes of unsupervised play. These sessions were taped and the aggressive episodes were coded as provoked,
instrumental (e.g. grabbing a toy), or bullying. The predominant type of aggression demonstrated was bullying (49%) and rejected, aggressive children were most often the bullies. The results further indicated that during a bullying episode, the victim was more likely to give in, thus communicating to the bully that this aggression is an effective way to get what you want. This reinforcement for the bully may indicate that he/she is in control, thus he/she does not really receive an indication of dislike from the victim or peers. This miscommunication may explain the differences in how bullies perceive themselves and others perceive them.

In summary, these studies indicate that while bullies perceive themselves as popular individuals, their peers have a controversial perception of them. Peers view bullies as leaders, yet they also indicate a dislike for them. This controversial perception of bullies does not prohibit peers for encouraging and reinforcing the bully's behavior. During a bullying episode, peers are likely involved in a variety of roles and their mere involvement tends to increase the length of the episode. Peers are most often involved in the bullying episode as reinforcers, defenders, or outsiders. While bullies are perceived as disliked, the peers that play roles of reinforcers or assistants are viewed as popular individuals. This complex relationship indicates that being a leader in a bullying episode is looked down upon, but involvement in the form of following this bully and actively bullying the victim or laughing is acceptable behavior. This contradictory information may lead the bully to incorrectly infer the results of their behavior, but also the causes.

**Social Information Processing and Bullying**

How a person interprets his or her environment is key to understanding his/her behavior. On a daily basis, a person depends on environmental and social cues to help
determine appropriate behavior for that particular situation. For example, when a person visits a restaurant that they have never been to before he/she observes what other people are doing in an attempt to better understand what is expected of them. This analysis of cues is done in nearly every situation, including bullying.

How a person interprets social information can explain their behavior in social settings. The way that child interprets social information can be broken down into a series of steps, including encoding of social cues, interpretation of social cues, clarification of goals, response access or construction, response decision, and behavioral enactment (Crick & Dodge, 1994). These multiple steps also include multiple areas of possible deficiencies or biases, which has been hypothesized to lead to aggressive behavior.

One of the possible areas of bias involves the attributions that children use to interpret social cues. Attributions are the way people interpret cues to determine the cause of their own and other's behavior (Jaspars, Fincham, & Hestone, 1983). Attributional patterns may differentiate aggressive children who participate in bullying from children who are not involved. Nasby, Hayden and DePaulo (1980) hypothesized that a link between particular patterns of behavior and a particular attribution style existed among aggressive boys, thus causing them to misinterpret social cues as hostile.

One limitation of this study is the sample, which consisted of 32 boys in a residential treatment facility for emotional disturbance aged ten to sixteen. Obviously this sample includes a very particular group of children, thus limiting the ability to generalize these results to other groups of children.
Three caretakers most familiar with each boy completed a Behavior Problem Checklist to determine the extent and severity of their aggression. The participants also completed a Still Photo Profile of Nonverbal Sensitivity test to assess potential biases in attribution style. This still photo test consisted of pictures of social situations and the boys had to correctly identify the situation. The situations varied from positive to negative and from dominant to submissive, thus allowing four types of emotional situations: positive-dominant, positive-submissive, negative-dominant, and negative-submissive. The participants were then asked to determine which type of situation was depicted using multiple-choice answer.

The results indicated a positive correlation between aggression and the percentage of incorrectly endorsed negative-dominant responses. Thus, as a child’s aggressiveness increased, his tendency to view social situations as negative-dominant also increased. This study was also conducted a second time, with the same sample. The only variation was the lack of multiple-choice responses, thus allowing the children to develop their own responses. The results of this second study also indicated a positive correlation between aggression and negative-dominant responses. This correlation suggests an attributional bias to infer hostility (negative-dominant affect) in interpersonal situations. This bias becomes more pronounced as the child’s aggressiveness increases. Bullying is viewed as a type of aggression, which suggests that this bias may also be present in the bullying situation.

Two types of aggression have been identified through previous research and theory: reactive and proactive. Reactive aggression is an angry, defensive response to frustration or provocation. Proactive aggression is a deliberate behavior that is controlled
by external reinforcements, such as attention (Crick & Dodge, 1996). Based on the definitions of these types of aggression, the definition of bullying, and previous research, bullying is classified as a form of proactive aggression (Boulton & Smith, 1994). Crick and Dodge (1996) hypothesized that this hostile attributional bias is characteristic of reactively aggressive children, while proactively aggressive children evaluate aggression as positive. This tendency to evaluate aggression as positive occurs in the response decision step of a child's social information processing and it allows them to expect positive outcomes from aggressive behavior.

To test these hypotheses, Crick and Dodge used a variety of assessment tools on 624 children in grades three through six. Teachers rated the children's aggressive tendencies to determine if the children were reactively aggressive, proactively aggressive, or nonaggressive. To assess the child's intent attributions, a series of six stories describing provocation situations with ambiguous intent were used. The child was then asked to circle one of four reasons for the provocation, two of which were hostile, and to tell whether the behavior was intentional. A response decision instrument was also used to assess the child's outcome expectations and feelings of self-efficacy for aggression.

The results indicated some interesting differences between proactive and reactive aggressive children. The proactively aggressive children evaluated verbally and physically aggressive acts in more positive ways than did the reactive or nonaggressive groups. These proactively aggressive children also reported more positive outcome expectations and greater efficacy for aggression than the other two groups. The reactively aggressive children attributed hostile intent to the peer provocations than the other two groups and they also did not evaluate aggression as a source of positive
outcomes. This result caused the researchers to hypothesize that reactive aggression is maintained by a negative cycle where the child attributes hostility to their peers and reacts aggressively. In the future, the peers actually become hostile based on past interactions, thus confirming the child's hostile attributions.

These results support the hypothesis that proactive aggression is viewed as an effective way to obtain external reinforcements, thus those who demonstrate this type of behavior view it positively. This result directly relates to bullying behavior, as it is a form of proactive aggression. The finding that reactive aggression is caused by hostile attributions further supports the findings of Nasby et al. This finding would not directly relate to bullying based on the afore mentioned definitions.

Similar findings were reported by Dodge and Frame (1982). In this study, aggressive and nonaggressive boys were presented with hypothetical stories in which a frustrating outcome, instigated by a peer, was directed toward either the participant or a second peer. The outcomes of the stories were either negative or ambiguous and the peer instigator was characterized as aggressive or nonaggressive. The participants were 81 boys in kindergarten through fifth grade. These participants were grouped according to age, thus three groups emerged: kindergarten and first, second and third, and fourth and fifth. Each group contained roughly fifteen aggressive boys and fifteen nonaggressive boys, which was determined by teacher and student ratings.

The participants were presented with eight stories and they were asked to decide how the outcome occurred (attribution of peer's intent) and how he would behaviorally respond to the situation. The results indicated that more hostility was attributed to the peer when he was characterized as aggressive, when the outcome was negative, and when
the story was directed at the aggressive participants. Retaliation was likely when the
outcome was considered negative, when it was an aggressive participant, and when the
instigator was characterized as aggressive.

These results indicate that aggressive participants attributed more hostility to
peers only when they were the recipients of an outcome, not when they observed the
action. This indicates that their attributional bias is limited to situations when they
experience the action and outcome first hand. The results further indicate that this
tendency to attribute hostility to peers may be founded, considering that all participants
expected the peers characterized as aggressive to behave aggressively and reported that
they would retaliate aggressively toward them. This finding supports the concept of a
negative cycle of aggression and indicates that this hostile attribution bias in aggressive
children may be founded.

These findings and hypotheses led Dodge and Frame to conduct two more studies
to investigate these issues further. In the second study, their aim was to determine if
aggressive boys selectively recall the hostile portions of their social environment, thus
leading to their biased interpretations. The sample consisted of 80 boys from Study 1.
Each participant watched nine videotapes of peers making hostile, neutral, and
benevolent statements during an interview. The status of the peer was also changed from
tape to tape to include children described as aggressive, popular and nonaggressive, or no
description was given at all. The participants were then asked to recall statements that
they heard, to recognize statements heard, and to make attributions about the peer’s
future behavior toward others.
The free-recall test revealed that participants were likely to remember cues consistent with the labels attributed to the peers. For example, when the child was described as popular, the participants remembered more benevolent cues and when the child was described as aggressive, the participants remembered more hostile cues. The aggressive participants also made up statements that were no present more often than the nonaggressive group. The recognition task yielded similar findings. The aggressive participants made more false positive errors, regardless of the type of cue, than the nonaggressive participants. The attributions about the peer's future behavior were found to be more hostile behavior when the participant was aggressive, when the peer was labeled aggressive, and when more hostile cues were presented.

These findings provide further support of the negative cycle of aggression, based on the recall of cues consistent with the peer's label. Also, the expectations of future hostile behavior were greater when the peer was labeled aggressive. While the findings did not support the hypothesis that aggressive children would recall more hostile cues, they do suggest a deficit in aggressive boys related to intrusions into recall and a tendency to recall cues that were not present. This study does demonstrate that selective recall of hostile cues does contribute to the attribution of future aggressive behavior, but this finding is consistent regardless of the aggressiveness of the participant.

Study 3 was conducted to determine if there is a relationship between the frequency a child initiates aggression and the frequency that this same child is the object of aggression. To test this relationship, six playgroups of eight unacquainted second grade boys each were created. These groups met for an hour a day for eight days and the boys were also interviewed at the end of the eight days to determine which boys were
aggressive, average, or nonaggressive based on peer nominations. The results indicated that committing verbal and physical aggression were correlated, as were receiving verbal and physical aggression. Also, the aggressive status boys initiated and received more acts of aggression than either of the other two groups. These findings provide further support that aggressive children’s belief that other’s will act aggressively toward them may be founded.

The previously discussed studies have involved participants that were labeled as aggressive or nonaggressive. As previously discussed, aggression can be further broken down into reactive or proactive forms, the latter including bullying. More specific research has been conducted on students labeled according to their bully status in an attempt to apply these findings to the specific type of aggression, bullying.

In an attempt to better understand why bullies bully, Boulton and Underwood (1992) interviewed 25 bullies, 25 victims, and 25 not involved students aged eight to ten. These students were classified based on peer nominations. The interviews consisted of a series of questions pertaining to why bullies bully, how bullies/victims feel during a bullying situation, and why victims are bullied.

When asked “What makes bullies pick on other kids?”, bullies responded that the victim provoked the harassment (44%), victims responded that they were smaller/weaker (36%), and not involved students suggested that it was for no reason at all (16%), followed by provocation (12%). These findings suggest that the majority of bullies and not involved students feel that victims provoke these bullying situations. When bullies were directly asked why they bullied their responses indicated that 72.8% of them felt provoked or they disliked the victim because he/she was annoying. This discrepancy
between bullies and victims reasons for bullying suggests that some sort of hostile attributional error does occur. However, the tendency for not involved participants to also suggest provocation as a main reason for bullying indicates a lack of such an error/bias.

The results of Smorti and Ciucci (2000) may help clarify this presence or lack of an attribution bias in bullies. This study tests the hypothesis that bullies and victims use different strategies to explain incongruence in social behavior. By means of a questionnaire on bullying behavior, 64 bullies, 42 victims and 101 controls aged eleven through thirteen constituted the sample of this study. The participants were read six stories. The first part of each story described typical behavior of a protagonist toward a peer, while the second part described an event when this protagonist violated his/her typical behavior, thus created incongruence. There were six variations of these stories based on the type of incongruence: neutral (in first half)-aggressive (in incongruent behavior), aggressive-neutral, aggressive-prosocial, prosocial-aggressive, prosocial-neutral, and neutral-prosocial. The participants were then asked why the protagonist had behaved in that way and how the other child in the story would react.

Bullies tended to respond that the other child in the story would respond aggressively more often than victims or controls. Bullies were also more likely than victims to attribute the protagonist’s behavior to an affect or a thought, rather than environmental context. Thus, bullies tended to say that “Protagonist does X, because he/she is thinking Y” where a victim would say that the “Protagonist does X, because the other person did Y”. An interesting finding was that the control participants were also likely to attribute the protagonist’s behavior to an affect, similar to bullies. This finding
suggests that bullies reason behavior on the basis of mental states without intentionally more than victims. This suggests that bullies are equipped to manipulate social relations, thus playing a more active role in the group. This finding does not suggest that bullies are deficient or biased in their attributions, but rather they are superior to victims in their ability to understand the mental states, beliefs and emotions of others.

The suggestion that bullies understand others at a higher level than victims was assessed by Sutton, Smith and Swettenham (1999). This study also assessed the social cognitive levels of peers that play the particular roles of reinforcers and assistants during a bullying episode. It was expected that bullies would also be superior to these followers in their levels of social cognition. This study clearly discriminates between the deficit/bias theory of interpreting social situations, as demonstrated in previous studies, and the theory that bullies have superior social cognitive levels, thus allowing them to manipulate social situations.

The participants included 193 children between the ages of seven and ten. The participants' verbal ability was assessed to ensure that differences were not explained by an understanding of the language of the stories. Following that assessment, participants completed the Participant Role Survey (Salmivalli et al., 1996) in the form of a nomination interview due to the age of the participants. Their social cognitive levels were assessed using eleven short stories, which addressed the participants understanding of emotion. Teachers also completed questionnaires to nominate children according to their bully status.

The results supported the hypothesis that bullies would score higher on social cognition than any other group, with the exception of outsiders. The participants who
were considered reinforcers or assistants also scored higher than the victims, but not higher than the bully or outsiders. This data clearly contradict the theory that bullies demonstrate a deficit or bias in their social cognitive abilities. The researchers hypothesize that the social cognitive skills of bullies must be high in order to avoid detection, choose victims that are most vulnerable, and tease someone effectively. While these skills are essential to bullying, it is interesting to find that those not involved in the bullying situation possess similar social cognitive capabilities. This may contribute to their ability to avoid the situation all together.

In summary, the findings of these studies indicate that aggressive children have a tendency to demonstrate a hostile attribution error in interpreting social cues. While reactively aggressive children demonstrate this attribution bias, proactively aggressive children tend to view aggression as an effective, positive manner to attain external reinforcers. Bullies fall into the proactive aggression category and studies have failed to demonstrate this attribution error amongst them, some studies have even found support for this hostile attribution toward peers. Instead, these studies suggest that bullies have superior social cognitive processing capabilities, thus allowing them to easily manipulate situations to gain control and dominance. This finding is consistent with the view that proactively aggressive children view aggression positively and as an effective means to reach goals.
CHAPTER 3
DISCUSSION

These studies indicate some important implications for the study of bullying. The self-perception of bullies remains a controversial topic, with strong support for a negative correlation between self-concept and bullying, as well as a positive correlation between self-concept and bullying. This relationship could be explained by the theory that negative self-concept motivates a child to bully in an attempt to increase the constructs related to self-concept.

This theory is strongly supported by the fact that peers reinforce bullying behavior through a variety of participant roles. The majority of the students involved in these studies reinforced the bullying behavior by coming to watch, laughing, and simply being there without intervening. While these children may not be aware of their influence on bullies, clearly this influence is strong due to the fact that bullying episodes are longer when peers are present. This peer influence may relate to bullies self-perceptions, but further research would be needed in order to support this theory.

Bullies view their aggressive behavior in a positive manner, seeing it as an effective method to reach their goals. This view of bullying is consistent with the fact that bullies feel supported by their peers during these aggressive episodes. Bullies have also been found to possess higher social cognitive skills than their victims, their reinforcers, and their assistants. This finding leads to an interesting picture of a bully.

A bully may begin with a negative self-concept. He or she, in an attempt to increase this self-perception, thinks of ways to improve. Bullying comes to mind and it seems like a plausible way to reach goals without any negative consequences. He or she
then utilizes his/her social skills to manipulate the social situation to gain dominance over peers. As this bully gains dominance, his/her self-perception improves as peers begin to pay more attention to him/her. This hypothesis of what a bully looks like is different from the typical perception of bullies as lonely children with poor social skills and poor self-esteem, thus requiring further investigation and support.

This cycle of bullying behavior is by no means complete. These studies on bullying do present some limitations. First, the majority of the participants in these studies were male. Two possible reasons for this have emerged. Simply put, there may be more male bullies than female bullies. Another potential reason is the type of bullying behavior observed and investigated in these studies. The most direct forms of bulling behavior were used in these studies, physical aggression, such as hitting, kicking, and pushing. It has been hypothesized that female bullying is indirect, such as exclusion, starting rumors, and talking about each other behind their backs. This difference in the forms of bullying that males and females participate may be the reason for the lack of female bullies in these studies because direct bullying is most easily observed.

Another limitation to these studies is the use of self-reports to collect information. While many of these studies used multiple methods of data collection, nearly all included self-reports. The participants may not have been forthcoming with all of their responses for a number of reasons. For example, a participant who bullies may not want to share this information because he/she fears that he/she will get in trouble for this behavior.

Implications for School Psychologist

While more research is needed on the topic of how these variables affect bullying behavior, some implications do exist based on the findings. First and foremost, these
studies indicate that there are not universal characteristics of children who bully. These studies strongly support the practice of treating each child as an individual. Although children who bully all participate in similar behaviors, their intentions, motivations, and thoughts about this behavior vary considerably. It is essential that psychologists treat each child as an individual and when bullying behavior develops the same standards should be utilized.

Secondly, this research indicates that multiple intervention techniques may be useful. While the self-perceptions and social information processes of bullies may involve misconceptions and faults with the child, the influence of peers is strongly supported by the research reviewed. For this reason, it is important to utilize individual interventions for the child, but also school-wide interventions to ensure that peers are no longer influencing the bullying behavior. Even classroom interventions might be more beneficial when compared to individual interventions alone.

Finally, it is essential that psychologists understand why the child has chosen to bully in order to achieve goals. In order to truly eliminate a negative behavior, an understanding of why it occurs is necessary. As demonstrated by the research, there are no characteristics that all bullies possess. Bullies participate in bullying behavior for various reasons. For example, one bully may see bullying as a way to increase his self-esteem and gain friends, while another bully simply feels that everyone is attacking him, thus putting him on the defensive. These different children require completely different intervention techniques in order to truly change their behaviors.
Directions for Future Research

Directions for future research include more longitudinal studies, more studies of female bullying, and devising more reliable methods of data collection. Longitudinal studies would clearly benefit in the case of self-concept and bullying. The theory that bullies utilize their behavior to increase their self-concepts could gain support from longitudinal studies that track bullies over a period of time, thus providing a link between the variables addressed within this paper.

While it may be difficult to examine more indirect forms of bullying behavior, the question of differences between the groups of children that participate in this form of bullying compared to a more direct form merits attention. Gender differences may exist, but more differences in self-perception, peer support, and social cognitive processing may also exist as a difference between these two groups.

Finally, research on bullying should attempt to find methods to verify the information collected via self-report measures. While the use of peer and teacher nominations does provide some support, more reliable methods need to be developed in an attempt to gain an accurate picture of bullying.
REFERENCES


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