

DISLIKING IN DYADS AND GROUPS: THE ROLE OF MUTUAL DISLIKE AND
PEER REJECTION IN CHILDREN'S SUBSEQUENT EXTERNALIZING AND
INTERNALIZING BEHAVIOR PROBLEMS

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INTERNALIZING BEHAVIOR PROBLEMS

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DISSERTATION ABSTRACT

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PEER REJECTION IN CHILDREN'S SUBSEQUENT EXTERNALIZING AND
INTERNALIZING BEHAVIOR PROBLEMS

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The purpose of this study was to examine the link between children's mutual dislike relationships and subsequent behavior problems. Mutual disliking and peer rejection were assessed among children in kindergarten and first grade, with adjustment assessed in kindergarten (as controls) and second grade (as outcomes). Enemies' level of group liking and child sex were assessed in terms of moderating the relation between mutual dislike and subsequent behavior problems. Of interest was whether mutual disliking would predict later

externalizing and internalizing behavior problems after controlling for initial levels of behavior difficulties and peer rejection, and whether these predictive links would be stronger when enemies were well-liked versus not well-liked by classroom peers.

The data for this study were drawn from an ongoing longitudinal project. Sociometric interviews were conducted in kindergarten and first grade classrooms and were used to compute mutual dislike, peer rejection, and enemies' level of liking scores. Externalizing and internalizing behavior problems were measured with teacher ratings in kindergarten second grade. Complete data were available for 505 children.

The findings show that mutual dislike, operationalized as reciprocated low-liking, is predictive of subsequent behavior problems, independently of prior problems and co-occurring peer rejection. Links between mutual disliking and externalizing problems were stronger for boys than for girls, and links between mutual disliking and subsequent internalizing problems were stronger when enemies were well-liked by the peer group than when enemies were not well-liked by the peer group. Overall, these findings suggest that mutual disliking may reflect an important aspect of children's peer experience.

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I. INTRODUCTION

The role of peer relationships in children's development has been a topic of interest of researchers for some time (Berndt, 1996; Cairns, Leung, Buchanan, & Cairns, 1995; Hartup, 1996; Parker & Asher, 1987). The emphasis to date largely has been on identifying children with problematic peer relationships and examining the antecedents, correlates, and consequences of such relationships (McDougall, Hymel, Vaillancourt, & Mercer, 2001). Group-level indicators, such as the degree of disliking or rejection (Coie, Dodge, & Coppotelli, 1982), have received extensive study, as have dyadic-level indicators, such as reciprocated liking or friendships (Newcomb & Bagwell, 1995). High levels of peer disliking (rejection) and low levels of reciprocated friendships have been linked with a variety of adjustment problems and socioemotional difficulties (Bukowski & Hoza, 1989; Coie et al., 1982; Hartup, 1996; Parker & Asher, 1987).

Recently, researchers have begun to turn their attention to dyadic peer experiences that reflect the so called "dark side" of peer relations. Chief among these are what some have termed mutual dislike, mutual antipathies, inimical relationships, or enemy relationships (Abecassis, Hartup, Haselager, Scholte, & Van Lieshout, 2002; Hartup, 2003; Parker & Gamm, 2003). Mutual dislike appears to be a common experience among elementary school children, with reports of between 29% and 67% of children having at least one reciprocated

“enemy,” depending on type of assessment used and age of child (Parker & Gamm, 2003; Pope, 2003; Schwartz, Hopmeyer-Gorman, Toblin, & Abou-ezzeddine, 2003). Moreover, there are reasons to expect mutual disliking may play a significant role in children’s social development. Enemy relationships likely are conflictual and unpleasant, at least for some children, and involvement in such relationships may result in aggressive confrontations or to anxiety and withdrawal as children seek to avoid their enemies (Hembree & Vandell, 2000; Pope, 2003). It also is possible that children who are immature, aggressive, shy, or retiring elicit reactions from peers that increase the likelihood of mutual disliking. Disentangling these possibilities requires a longitudinal analysis in which changes in externalizing-type behaviors (such as aggression) and internalizing-type behaviors (such as anxiety) as a function of level of mutual disliking can be traced over a period of years.

Further confounding the study of the role of mutual dislike in children’s social behavior and adjustment is its likely overlap with peer rejection. Peer rejection refers to the degree to which a child is disliked by the peer group (Asher, Parker, & Walker, 1996). Consequently, peer rejection is a unilateral construct, representing the view of the group toward an individual (Bukowski & Hoza, 1989). In contrast, mutual disliking is an inimical experience between two peers. That is, mutual disliking is a bilateral construct that takes place between two individuals who have reciprocated negative feelings toward one another (Abecassis, 2003; Hartup, 2003). There is evidence that children who are rejected and children who are involved in high numbers of mutual disliking

display similar behavioral characteristics (e.g., aggression and jealousy) in their interactions with the peer group (Abecassis, 2003; Hartup, 2003). Thus, rejected children also manifest attributes that make them prone to mutual dislike relationships. It is not surprising, then, that mutual disliking occurs more frequently among peer-rejected children (86%) than among popular (54%) or average (66%) status children (Pope, 2003).

In spite of this overlap, there are reasons to believe that peer rejection and mutual disliking may be associated in non-redundant ways with children's behavioral adjustment and well-being. Previous research has documented that different, but correlated, aspects of children's peer experience predict children's subsequent adjustment. For example, Ladd, Kochenderfer, and Coleman (1997) found that low peer acceptance, lack of friends, and victimization were moderately interrelated, but that each had unique associations (i.e., after covarying out the other peer relationship features) with school adjustment. Likewise, Vandell and Hembree (1994) found that peer social status and friendship, though overlapping, were not redundant: each contributed uniquely to the prediction of children's behavioral adjustment and academic competence.

Peer rejection may contribute to maladjustment because the social exclusion associated with it may limit opportunities for positive peer group experiences and because it may act as a stressor that undermines competence and confidence in maintaining connections with peers (Coie, 1990; Dodge, Lansford, Burks, Bates, Pettit, Fontaine, & Price, 2003). Mutual dislike is potentially an emotionally charged and intense experience, because it is based

on patterns of social exchange in a dyadic context. As noted earlier, frequent experiences of mutual dislike might contribute to anger, aggression, loneliness, and anxiety. Peer rejection and mutual disliking might therefore overlap to some degree yet still show non-redundant associations with subsequent social and behavioral outcomes. There are few empirical studies of peer rejection, mutual disliking, and child adjustment, and evidence to date of overlapping versus additive (non-redundant) links between peer rejection, mutual disliking, and adjustment is inconclusive. Some studies have found that mutual disliking no longer predicts behavioral adjustment once peer rejection has been controlled (Schwartz et al., 2003). Other studies have reported additive, non-redundant associations (Abecassis et al., 2002; Hembree & Vandell, 2000), but these findings are drawn from either cross-sectional or short-term (two assessments during a single school year) investigations in which antecedent adjustment was not controlled.

A more comprehensive analysis was undertaken by Pope (2003). In this study of third through sixth graders, number of mutual enemies (assessed both through sociometric nominations and through peer ratings) and peer rejection (number of dislike sociometric nominations) were examined in relation to concurrent and subsequent (one year later) adjustment. The study focused on both internalizing-type behaviors (e.g., anxious, withdrawn, sad) and externalizing-type behaviors (e.g., immature, aggressive, over-reactive). An index of mutual dislike based on peer ratings generally showed a stronger pattern of concurrent relations with adjustment compared to peer nominations, and

associations were somewhat stronger for internalizing-type problems (e.g., $r = .29$ with withdrawn behavior) than for externalizing-type behaviors (e.g., $r = -.02$ with aggressive behavior). Peer disliking was more consistently associated with the adjustment indexes, however, and accounted for a substantial proportion of the impact of mutual disliking on adjustment. Prospective relations between mutual disliking (whether based on nominations or ratings) and later adjustment were non-significant once concurrent adjustment levels were controlled.

The Pope (2003) findings suggest that mutual disliking is less important, in the prediction sense, than peer rejection. However, several questions can be raised about these findings. In the principal analyses both predictors (mutual disliking and peer rejection) and outcomes (adjustment problems) were derived from peer report. Moreover, the adjustment outcomes were based on single-item peer nominations, of unknown reliability. Substantial selective attrition occurred in the follow-up assessments which were conducted within only one year. A high level of cross-year stability, which is reasonable when assessments are separated by only one year, would reduce the likelihood that mutual disliking could predict change in behavioral adjustment (i.e., worsening adjustment) over time.

The current study was designed to address some of these issues and to examine links between mutual dislike and behavior problems at earlier grades than have typically been studied. Also, to guard against within-year (and within-classroom) idiosyncrasies in patterns of mutual disliking, scores were averaged across kindergarten and first grade. To insure some methodological

independence, adjustment scores were derived from kindergarten and second grade teachers' ratings on a well-known standardized instrument (CBCL-TRF; Achenbach, 1991). The kindergarten ratings were treated as controls (and correlates) and the second grade teacher ratings served as prospective outcomes.

The current investigation also extends the study of mutual disliking by taking into account the characteristics of the "enemies" with whom a child shares a mutual dislike relationship. As noted by Hartup (1996) and others (e.g., Ladd, 1999), to understand the impact of a dyadic relationship on an individual, one must know both about the quality of the relationship and the behavioral characteristics of the individuals in that relationship (whether they be friends or enemies). Several studies have shown that the socialization benefits of having friends (i.e., the extent to which friendships forecast good adjustment outcomes) hinges on whether those friends are prosocial or antisocial (Criss et al., 2002; Hodges, Malone, & Perry, 1997; Vitaro, Brendgen, & Wanner, 2005). A common procedure is to estimate the average level of a characteristic across all of a child's friends and then to use the resulting score as a moderator (e.g., see Hodges et al., 1997).

In the current context it was of interest to determine the average level of liking of children's enemies by the larger peer group. Two possibilities seemed plausible with respect to how this average of enemies' liking score might operate in conjunction with number of enemies. First, it seems reasonable that the risk associated with having an enemy who is also disliked by the larger peer group

(i.e., a rejected child) is substantially less than having an enemy who well liked by the larger peer group (i.e., a popular child). That is, it may be self-validating when others share a child's negative view of his or her enemy. As a result of others supporting one's views about an enemy, the level of stress is likely to be low. In contrast, having an enemy who is well-liked by the peer group places a child in the minority of opinion, and this difference of judgment is likely to be quite palpable and a potential source of stress for the child. The child may be distressed about why they (and not others) are not able to get along with the particular enemy, and the shared dislike may also contribute to their own exclusion from opportunities to socialize with peers when the popular enemy engages in group activities. These two possibilities were evaluated in the current study.

A final issue of interest in the current study was the extent to which sex differences were found in overall level of mutual dislike and in patterns of relations between mutual disliking and adjustment outcomes. Some researchers have argued that mutual dislike should be assessed based only on within-sex nominations and ratings (Parker & Gamm, 2003), but other researchers have employed mixed-sex nominations and ratings (Pope, 2003; Rodkin, Pearl, Farmer, & Van Acker, 2003). As noted some time ago by Asher and Hymel (1981), mixed-sex peer nominations and rating scores are appropriate when the research goal is to examine behavioral antecedents and correlates of sociometric scores, which is the case in the proposed study. Previous research on mutual disliking that has examined gender differences has produced a mixed pattern of

results. That is, while some studies (e.g., Parker & Gamm, 2003; Pope, 2003) report marked differences in adjustment outcomes for boys and girls involved in mutual disliking, other studies (e.g., Abecassis et al., 2002; Hembree & Vandell, 2000) have found similar outcomes for boys and girls involved in mutual disliking. Thus, the question regarding whether the outcomes associated with mutual disliking differ for boys and girls remains unanswered. An examination of sex differences, therefore, was a focus of the present study.

Research Questions

There were several aims within the current study. First, the study attempted to gain a greater understanding of the predictive link between mutual disliking and maladjustment, and whether it predicts maladjustment above and beyond peer rejection. Second, the study attempted to determine if other factors moderate the effects of mutual disliking. Specifically, the study examined if an adversary's level of group liking moderates the predictive power of mutual disliking and peer rejection to subsequent adjustment problems. Prior to the current investigation, it was not clear how being disliked by a child who has low group liking (relative to a child who is high in group liking) posed a risk for later maladjustment to a child. Thus, there was a need to distinguish between the dyadic and group levels of influence in order to clarify the connections between them. Additionally, because negative peer experiences may affect boys and girls differently, the study examined whether child sex moderates the relationship between mutual disliking and peer rejection to subsequent adjustment problems.

The primary purpose of the current study was to examine the predictive

association between mutual disliking, assessed in kindergarten and first grade, and children's behavior problems, assessed in second grade. Most research on mutual disliking has focused on older age groups. It is not clear whether mutual disliking in the early elementary school years will yield findings similar to what has been found among older children and adolescents, but given that research on other types of problematic peer relationships (e.g., lack of friends and peer rejection) show meaningful links with adjustment difficulties as early as the preschool years (e.g., see Ladd, 1999, and Rubin et al., 1998), it seemed reasonable to expect that kindergarten and first-grade levels of mutual dislike will be associated with later behavior problems. This expectation was tested by controlling for both earlier (kindergarten) behavior problems and concurrent (kindergarten and first grade) peer rejection. Mutual dislike was operationalized as the number of reciprocated ratings of "1" between two peers using a rating scale. Peer rejection was operationalized as the standardized (within classroom) number of "disliked" nominations received from classmates. It is recognized that the term "peer rejection" sometimes has been restricted to sociometric-based categories (i.e., reflecting a high level of disliking by peers and a low level of liking by peers), but in the present context it is used to denote a continuum of disliking (see Jiang & Cillessen, 2005).

Also of interest was whether "enemies'" liking by their classroom peers moderated the association between mutual disliking and behavior problems. Enemies' liking by the peer group was operationalized as the standardized number of "liked" nominations received by the enemies, averaged across

enemies. For all three peer measures—mutual disliking, peer rejection, and group liking of enemies—scores were averaged across kindergarten and first grade to improve reliability and to insure that the peer indexes were not idiosyncratic to a single grade. Teachers provided rating of children’s internalizing and externalizing behavior problems in kindergarten and second grade.

The current study addresses five research questions. The first question is whether mutual disliking is associated with higher levels of internalizing and externalizing behavior problems. The second question is whether these predictive links continue to be significant after controlling for peer rejection and prior adjustment. The third question is whether these predictive associations are moderated by child sex. The final question is whether group liking of adversaries moderates the relation between mutual disliking and behavior problems.

II. LITERATURE REVIEW

The primary goal of the current study was to examine the prospective association between mutual disliking in kindergarten and first grade and externalizing and internalizing behavior problems in second grade. The role of initial levels of behavior problems and group-level peer rejection in these predictive associations were evaluated. That is, the predictive utility of mutual disliking for adjustment outcomes beyond the explanatory power provided by initial behavior problems and peer rejection were examined. Further, the extent to which the links between mutual disliking and behavior problems is conditional on (moderated by) the average level of group liking of the child's "enemies" also was considered. A final goal was to explore whether the links between mutual dislike and behavior problem outcomes differs for boys and girls.

In response to the goals of the study, the literature review will address the following set of issues. First, an overview of research linking problems in peer relations with adjustment difficulties will be presented. Second, research that provides a justification for why mutual dislike should fall under the rubric of problematic peer relationships will be offered. Third, research that examines the unique contribution of mutual dislike to adjustment (beyond initial levels) will be explored. Fourth, research that compares the explanatory power of mutual dislike and group-level rejection to adjustment will be discussed. Fifth, research on the

importance of characteristics of a child's friends (and by implication the characteristics of a child's enemies) when examining the links between dyadic relationships and adjustment will be summarized. Finally, research that addresses differences in the links between mutual dislike and behavior problem outcomes for boys and girls will be presented.

Peer Relationship Problems and Adjustment

Investigators have long acknowledged the importance of peer relations during childhood (Bagwell, Newcomb, & Bukowski, 1998; Parker & Asher, 1987; Rubin, Bukowski, & Parker, 1998). Socialization is multifaceted with both the dyadic and peer group experiences making distinctive and important contributions to children's social development. The independent contributions of both of these socialization domains have been well documented but the link between these two systems is less understood. One consequence of the increased knowledge of the permeable boundaries between these two domains has been the promotion of the interdependence of socialization relationships (Hartup, 1996). Hartup (1996) states that children are embedded in a variety of social systems that mutually influence each other in the course of shaping children's social development. Two such peer experiences, mutual dislike and peer rejection, are considered to be negative experiences that are characterized by unilateral or bilateral enmity and therefore are likely to be detrimental to development (Parker & Asher, 1993; Parker & Gamm, 2003).

Numerous longitudinal studies have shown that children identified with problematic peer relations are at risk for later adjustment problems with respect

to their social and emotional functioning (e.g., Dodge et al., 2003; Fergusson & Horwood, 1999; Haselager, Cillessen, Van Lieshout, Riksen-Walraven, & Hartup, 2002; Hodges et al., 1999; Wentzel, 2003). Such problems may include externalizing difficulties, such as delinquency and antisocial behavior (Coie, Lochman, Terry, & Hyman, 1992; Kupersmidt & Coie, 1990), as well as internalizing difficulties, such as anxiety and depression (Rubin, Rowden, & LeMare, 1990). One challenge for researchers has been to separate the effects of problematic peer relationships at the group level compared to difficulties at the dyadic level. The most commonly used group-level indicator of peer relationship difficulties is peer rejection.

Peer Problems at the Group-level

Although multiple forms of negative peer group experiences are recognized by researchers (e.g., peer rejection and deviant peer groups), the current discussion will only focus on peer rejection. Peer rejection has been operationalized as the number of low social preference nominations plus the number of high social impact nominations, standardized within classroom (Coie, Dodge, & Copotelli, 1982) and describes how the peer group perceives the individual in terms of overall acceptance and social visibility. In all, five sociometric categories (popular, controversial, average, neglected, and rejected) typically have been created by researchers to serve as an index of each child's level of social position among peers (e.g., see Coie et al., 1982). Thus, this position, referred to as social status or group acceptance, has been defined as "a general, group-oriented, unilateral construct that represents the view of the group

toward the individual” (Bukowski & Hoza, 1989, p. 19). A review of the effects of peer rejection will be presented first, followed by a discussion of negative dyadic peer experiences.

Peer Rejection

As researchers have gained a greater understanding of how peer relationships develop and are maintained, investigators have paid greater attention to the developmental significance of peer rejection. A number of studies demonstrate that peer rejection in early childhood holds implications for poor school and psychological adjustment in later childhood and early adolescence (Boivin et al., 1995; Broidy, Nagin, Tremblay, Bates, Brame, Dodge, et al., 2003; Dobkin, Tremblay, Masse, Vitaro, 1995; Dodge, Coie, Pettit, & Price, 1990; Hoza, Molina, Bukowski, & Sippola, 1995; Parker & Asher, 1987) and that 10% to 20% of children are “not liked” by their classmates (Cillessen, van Ijzendoorn, van Lieshout, & Hartup, 1992). Parker and Asher (1987) reviewed research linking three aspects of childhood adjustment (i.e., peer rejection, withdrawal, and aggression) to maladjustment in adolescence and young adulthood. They found evidence that aggression and peer rejection were significant predictors of maladjustment. Indeed, peer rejection was predictive of school dropout and criminality in adolescence, and follow-back comparisons indicated that adolescents who dropped out of school were rated higher by both teachers and peers on aggressive and withdrawal behaviors. Thus, those adolescents who dropped out of high school showed a pattern of problematic peer relations

beginning in middle childhood and early adolescence.

Children who are cooperative, helpful, and competent are typically well regarded by their peers, and those who engage in high rates of aggressive and antisocial behavior are rejected by many in the peer group (e.g., Cairns, Cairns, Neckerman, Gest, & Gariepy, 1988; Cillessen et al., 1992; Dishion, Andrews, & Crosby, 1995; Miller-Johnson, Coie, Maumary-Gremaud, & Bierman, 2002; Parker, Rubin, Price, & DeRosier, 1995; Parkhurst & Asher, 1992; Pettit, Clawson, Dodge, & Bates, 1996). As a result, rejected children receive fewer positive initiations and more negative treatment from others (e.g., Cillessen et al., 1992). Perhaps as a corollary of this, many children who are rejected become more isolated and less interactive over time and it seems plausible that they experience negative emotional consequences. Indeed, prior research has found that especially among girls, rejected children report greater feelings of social anxiety and more social avoidance (Cillessen et al., 1992; Parkhurst & Asher, 1992). Over time, it is reasonable therefore to speculate that children who are rejected may develop internalizing difficulties characterized by apprehensiveness, timidity, social withdrawal, and submissiveness (Rubin, LeMare, & Lollis, 1990).

In their review, Parker and Asher (1987) examined the mechanisms through which peer rejection plays a role in development and compared two models: the causal and incidental models. The causal model posits that peer rejection has a direct role in the development of maladjustment beyond any other factors. For example, if main effects for mutual dislike on subsequent behavior

problems are found (after controlling for prior adjustment levels), this would be evidence for a causal mechanism. In contrast, the incidental model does not assume a direct link between peer relations and a developmental outcome. Instead, the incidental model views individual differences in aberrant social behavior as reflecting an underlying propensity for maladjustment and the development of poor quality relationships (Newcomb & Bagwell, 1996). That is, poor peer relations may be the consequence (rather than antecedent) of maladjustment, and thus may serve as an indicator for the underlying risk factor (Dodge et al., 2003; Parker & Asher, 1987; Schwartz et al., 2003). For example, if mutual dislike does not predict later behavior problems beyond initial behavior difficulties, then mutual dislike would be considered a marker for early maladjustment and consistent with the incidental model. At the time of their review, it was unclear which model had the greatest explanatory power for understanding the link between peer relationship problems and outcomes. One way of testing these models is to control for prior adjustment to see if peer rejection continues to predict adjustment outcomes.

In an early test of the causal versus incidental models, Kupersmidt and Coie (1990) compared peer status, aggression, and school adjustment in middle childhood as predictors for maladjustment in adolescence. The outcome variables considered in this study were school-related adjustment (i.e., suspension, truancy, grade retention, and school dropout) and externalizing behavior problems (i.e., delinquent acts that lead to contact with police and courts). The study followed 112 fifth grade children prospectively for seven years.

The cohort consisted of 19 rejected children (17%), and 8 of the rejected children (47%) were classified as highly aggressive, while 7 of the rejected children (42%) were classified as low-achieving in school. Results indicated that although aggression proved to be the stronger predictor of a specific negative outcome, peer rejection more predictive of multiple negative outcomes in adolescence (after controlling for prior aggression). Kupersmidt and Coie (1990) conclude that different aspects of negative peer relations should be considered in order to gain a better understanding of the risks associated with poor peer relationships. The authors also emphasize the need for future research to consider internalizing behavior problems in addition to externalizing behavior problems as adjustment outcomes. Much of the research to date has focused on the association between poor peer relations and externalizing difficulties, making the connection between negative peer experiences and other forms of maladjustment (i.e., internalizing problems) less well understood. One aim of the proposed study is to address the issues raised by Kupersmidt and Coie (1990) by comparing different aspects of negative peer relationships (i.e., peer rejection and mutual disliking) on subsequent internalizing and externalizing adjustment outcomes longitudinally.

In another investigation that compared the causal model to the incidental model, Miller-Johnson et al. (2002) documented that the experience of peer rejection in the early school years adds to the risk for early-onset conduct disorder. Peer rejection and aggression in the early school years were examined with 657 boys and girls from first through fourth grades. Findings indicated that peer rejection in first grade added to the prediction of early-onset conduct

disorder in third and fourth grades, over and above the effects of aggression. Thus, peer rejection does not merely serve as a marker for behavioral risk factors (i.e., aggression), but instead independently contributes to later behavior problems.

Dodge et al. (2003) also describe the role of peer rejection in children's adjustment. This study examined the association between peer rejection and increases in antisocial behavior using two separate longitudinal samples followed during two time periods: from kindergarten to grade 3 and from grades 5 to 7. The study consisted of 259 boys and girls from the Social Development Project (Burks, Dodge, & Price, 1999) and 585 boys and girls from the Child Development Project (Pettit, Bates, & Dodge, 1997). Of primary importance to the current study is the finding that peer rejection in elementary school predicted subsequent antisocial behavior, even after controlling for previous social behavior. That is, peer rejection played an incremental role in the development of aggression, suggesting that low regard among peers during childhood can have at least at add to the risk of developing of later antisocial behavior.

Coie (2004) recently provided a framework for how peer rejection may be implicated in maladjustment. He argues that one mechanism by which rejected children might become intertwined in a negative cycle of peer difficulties that maintains itself over time involves social characteristics (e.g., behaviors exhibited in social situations) of rejected children that perpetuate their low regard among peers. Importantly, Coie (2004) emphasizes the role of both externalizing (e.g., disruptive behavior) and internalizing (e.g., withdrawal) behavior problems in low

peer acceptance, which in turn contribute to poor social skills. That is, the adjustment problems that contribute to group-level rejection and exclusion from peer group activities also results in rejected children having fewer social skills to initiate and maintain friendships, and having fewer strategies for resolving conflict. Poor impulse control, inadequate emotional regulation, and deficient social skills leads to a child's rejected status and peer rejection leads to a worsening of social behavior (i.e., increased internalizing difficulties) by the child who is frustrated by his social position, which in turn increases the risk for developing antisocial behavior (Coie, 2004). Coie (2004) suggests, therefore, that early maladjustment leads to difficulties within the peer group, and that the resulting peer rejection adds to the risk of developing antisocial behavior.

As is evident from the preceding discussion, it is well established that low peer acceptance is a strong predictor of subsequent adjustment difficulties, and some useful frameworks have been constructed by researchers to facilitate a better understanding of the processes through which these relationships operate in social development. We turn now to a consideration of dyadic-level peer relationship problems, which, as will be seen, have received comparably less research attention.

Peer Problems at the Dyadic-level

The effects of multiple forms of negative dyadic experiences on adjustment have been examined by researchers. One type is friendlessness, although this is considered to be more unilateral rather than dyadic (Parker & Asher, 1993). A second type of negative dyadic experience is the bully-victim

relationship, although researchers have typically focused on either the bully or victim (and not the actual “relationship”), so less is known about the sentiments felt between the dyad members (Dishion et al., 1995; Hodges et al., 1997). Recently, researchers have begun to examine a third form of negative dyadic experience: mutual dislike. Although previous investigations into friendlessness and bully-victim relationships have shown these experiences to be associated with concurrent and subsequent maladjustment for children (Cassidy & Asher, 1992; Hodges et al., 1997), the literature is less conclusive regarding the impact of mutual disliking on adjustment outcomes. A review of studies on mutual dislike will be presented next.

Mutual Dislike

There is a new interest in the study of mutual dislike, spurred in part by an earlier investigation by Hartup and Abecassis (2002). Chapters in a recent book by Hodges and Card (2003) focus on the correlates and consequences of this experience. These investigations reveal that mutual dislike is a fairly common experience in childhood, with studies reporting that as few as 29% (Schwartz et al., 2003) to as many as 67% (Pope, 2003) of children being involved in this type of dyad. Given the range of occurrence of mutual disliking found across studies, one question that naturally emerges is whether the operationalization of mutual dislike matters.

Typically, researchers have used either sociometric ratings or nominations to assess mutual disliking among children. Specifically, reciprocated peer nominations of “dislike” or reciprocated ratings of low liking have been used as

ways to assess the mutual dislike relationships of children (e.g., Abecassis et al., 2002; Parker & Gamm, 2003; Pope, 2003; Rodkin et al., 2003; Schwartz et al., 2003). A limitation of nominations is that the number of disliking relationships is restricted to the number of nominations allowed. For instance, if children are asked to nominate three peers whom they dislike, then the maximum number of mutual dislike relationships will be limited to three. Reciprocated low ratings (i.e., ratings of “1”), on the other hand, have the advantage of not restricting the number of evaluations that children can make of their classmates. The ratings-based mutual dislike score therefore will usually have a greater range than the nomination-based score. In addition, compared with nomination scales, rating scales display better test-retest stability, especially with younger children (Parker & Asher, 1987). For these reasons, reciprocated peer ratings of “1” were used to assess children’s mutual dislike dyads.

Overlap of Peer Rejection and Mutual Dislike

Research has revealed that many sociometrically popular and average children report experiencing a mutual dislike relationship (Abecassis, 2003; Parker & Gamm, 2003; Pope, 2003; Rodkin et al., 2003; Schwartz et al., 2003). The extant literature on mutual disliking has reported that peer rejected children are disproportionately represented in these dyads, but that some average and popular children experience some degree of mutual dislike. For example, peer nominations have indicated that 13% of popular, 31% of average, 53% of controversial, 40% of neglected, and 60% rejected children had at least one mutually disliked peer (Pope, 2003). In contrast, peer ratings indicate that 54% of

popular, 66% of average, 80% of controversial, 90% of neglected, and 86% of rejected children have at least one mutually disliked peer (Pope, 2003).

There are several reasons why mutual dislike and peer rejection overlap. One possible explanation for why there is a high degree of overlap between peer rejected status and mutual dislike is that there are a number of qualities involved in mutual dislike relationships that may be relevant to group social status (Hartup & Abecassis, 2002). For instance, the negative characteristics that promote rejection (e.g., aggressiveness) may also contribute to mutual disliking among children. Also, the positive characteristics that promote popularity (e.g., cooperation) also aid children in establishing and maintaining friends (Asher, Parker, & Walker, 1996). As a result, some overlap in experiences at the group and dyadic levels would be expected. A second possibility for why mutual dislike and peer rejection overlap is that, at least for one member of the dyad, the response given in an interaction by one partner (e.g., being submissive or aggressive) may be reinforcing to the other partner (Card & Hodges, 2003). Many of the preceding attributes are consistent with a portrait of the rejected child, who may exhibit either a retiring disposition or an aggressive posture. The key elements of mutual dislike that distinguish it from other peer relationships and that may account for its developmental significance include reciprocity, intensity (i.e., mild aversion to deep hatred), and mutual hostility (Hartup, 2003).

The distinction between group-level peer experiences and dyadic relations is important because they represent two overlapping yet unique aspects of children's social experience (Cairns, Xie, & Leung, 1998). Consistent with this

premise, when considering the overlap between mutual dislike and peer rejection, it is useful to consider previous research that addressed the issue of distinct versus overlapping features between friendship and peer acceptance. Therefore, some illustrative research that has addressed the issue of overlap versus distinct processes in different peer relationship domains will be presented as a basis for considering mutual dislike as a separate yet overlapping construct from peer rejection.

In a study by Ladd et al. (1997), the relative contributions of three forms of peer relationships (e.g., friendship, peer acceptance, and victimization) to children's early school adjustment were examined. Participants were 200 children (95 females & 105 males) from 16 kindergarten classrooms and assessments were made twice, Time 1 in the fall and Time 2 in the spring of the same school year. School adjustment was assessed with measures of school affect (loneliness and social dissatisfaction), school liking and avoidance, and school performance (academic readiness and classroom involvement). Results revealed that relationship measures were moderately concordant (i.e., young children's involvement in one relationship does not necessarily correspond to involvement in another). With regard to school affect, both peer acceptance and number of friends were negatively related to loneliness in the fall and spring and changes in loneliness over time. Also, peer victimization was positively related to loneliness and uniquely explained the degree of loneliness concurrently and subsequently. Although all three relationship measures were related to social dissatisfaction, both number of friends and victimization uniquely predicted

changes over time. Second, peer victimization was significantly positively related to avoidance, and was the only peer relationship measure that was consistently associated with avoidance. Finally, academic readiness was related to victimization (negatively in the spring) and having a best friend (positively in the fall). Thus, the Ladd et al. (1997) study found that both group-level and dyadic-level measures were uniquely associated with different aspects of adjustment.

In another study that examined the importance of a mutual friendship on future adjustment, Bagwell et al. (1998) examined preadolescent friendship and peer rejection and its impact on adjustment in adulthood. The study consisted of 334 participants (175 males and 159 females) from five fifth grade classrooms and the follow-up study consisted of 60 (30 males and 30 females) young adults. Results suggested that friendship and peer rejection were not redundant predictors of adjustment in adulthood. That is, friendship and level of peer acceptance emerged as different components of peer relationships and associated with different aspects of adult functioning. The level of preadolescent peer acceptance uniquely predicted overall adult adjustment. In addition, preadolescents with multiple friendships had higher levels of general self-worth in adulthood, even after controlling for perceived social competence in preadolescence. Conversely, peer rejection and the absence of friendship were associated with depression and anxiety in adulthood. These findings highlight the important role that friendship plays in development, and suggest that friendship and group-level acceptance are separate aspects of peer relations with different implications for subsequent adjustment.

As the reviewed research suggests, researchers have gained a better understanding of the impact of negative peer experiences on children's well-being, and following the lead of Kupersmidt and Coie (1990), have incorporated multiple indicators of poor peer relations, including those of dyadic relations. Contemporary researchers acknowledge that peer rejection and the number of friends that a child has are correlated, although they nonetheless reflect distinct social experiences (e.g., some rejected children have friends). Moreover, researchers have discovered that the relationship between peer rejection and friendship with concurrent and subsequent adjustment outcomes are non-redundant. For example, the Ladd et al. (1997) and Bagwell et al. (1998) studies suggest that a child's dyadic and group-level peer experiences hold unique implications for adjustment. These findings lend support to the notion that another dyadic relationship feature – mutual disliking – likewise may have implications for children's behavior problems, such as externalizing and internalizing behavior problems. Consistent with this notion, it seems reasonable to speculate that the dyadic experience of mutual disliking holds unique, yet overlapping, implications for adjustment with peer rejection. However, the neglect of attention to mutual disliking as a negative or problematic peer relationship in childhood has created a gap in the literature. Specifically, although researchers have an understanding of children's friendships and peer acceptance and how each affects adjustment, less is known regarding the association between mutual disliking and low peer acceptance, and how each separately contributes to behavior problems. Studies that have examined the issue of mutual dislike and

its association with behavior problems will be presented next.

Mutual Dislike and Adjustment Problems

In the sections that follow, research examining mutual dislike to adjustment outcomes will be reviewed with special attention to whether (a) peer rejection was controlled, and (b) whether prior adjustment was controlled. Two studies that found mutual disliking to predict maladjustment beyond peer rejection will be presented first, followed by two additional studies that suggest mutual disliking does not contribute uniquely to maladjustment beyond peer rejection.

Hembree and Vandell (2000) examined mutual dislike among 324 third grade children. Mutual dislike was operationalized as reciprocated nominations (i.e., “name 3 peers you don’t like to play with”). Using a cross-sectional design and controlling for peer rejection, the study found that the link between mutual disliking and adjustment outcomes continued to be significant. Specifically, results revealed that higher numbers of mutual disliking were associated with emotional maladjustment and poor academic adjustment. Although Hembree and Vandell (2000) controlled for level of group liking, a cross-sectional design was used, thereby preventing them from considering prior levels of adjustment when examining the impact of mutual dislike on outcomes.

In a second study of mutual dislike, Parker and Gamm (2003) examined the prevalence of mutual dislike relationships among 221 seventh through ninth graders. The authors examined the frequency of mutual disliking, its behavioral correlates, and impact on adjustment. Results indicated that 58% of seventh

through ninth graders were engaged in mutual disliking, and similar to findings documented by Hembree and Vandell (2000), this investigation found that mutual dislike relationships were found to contribute uniquely to victimization beyond group liking. Victimization, in turn, lead to increased feelings of internalizing behavior problems (Parker & Gamm, 2003). Although Parker and Gamm (2003) controlled for level of group liking in their study, the use of a cross-sectional design in the investigation did not allow for the control of prior adjustment.

In contrast, a study by Schwartz et al. (2003) found mutual dislike to not predict maladjustment beyond the effect of peer rejection. Schwartz et al. (2003) conducted a study with 239 third through fifth graders to examine the effect mutual disliking and exposure to community violence had on child adjustment. This study employed a multi-informant approach, with data collected from self-reports, peer nominations, and school records. Schwartz et al. (2003), using a peer nomination procedure, measured mutual disliking and peer rejection. Using this procedure, children were given a class roster and asked to nominate up to 3 peers who fit the item, “kids you liked least in the whole class.” Peer rejection was calculated based on the number of nominations received by each child and standardized within class. Those children who nominated each other as “liked least” were considered to be involved in a mutual dislike relationship. Approximately 29% of children were involved in at least 1 mutual dislike relationship using the nominations method, with boys and girls equally likely to have a mutual dislike relationship. Although having mutual dislike relationships was positively correlated with externalizing and internalizing behavior problems,

mutual disliking did not predict maladjustment beyond peer rejection. However, although Schwartz et al. (2003) controlled for level of group liking by peers, the study used a cross-sectional design and therefore did not control for prior adjustment when examining the impact of mutual disliking or peer rejection.

A second study that failed to show a predictive link between mutual dislike and maladjustment beyond peer rejection was conducted by Pope (2003). Mutual dislike relationships were assessed for 213 children in two age groups, with each group assessed twice. The first assessment occurred when participants were in grades 3 through 5, and the second assessment occurred a year later when participants were in grades 4 through 6. This study contrasted two methods (e.g., nominations and ratings) for identifying mutual dislike relationships. Results varied by the method employed. Peer nominations showed that 33% of children had at least one mutual dislike relationship, compared to 67% when using peer ratings across both assessments. Because only peer nominations of dislike (i.e., group-level peer rejection) predicted concurrent adjustment problems, this suggests that the association between mutual disliking and adjustment is due to the level of unilateral dislike. Further, results indicated that neither the nominations nor ratings method used for assessing mutual disliking predicted future adjustment problems beyond general dislike. Thus, the Pope (2003) findings suggest that mutual disliking poses less risk for children compared to peer rejection. In contrast to previous studies that have examined mutual dislike to date, Pope (2003) used a longitudinal design and controlled for both prior adjustment and level of group liking in her analyses. As mentioned previously,

several issues can be raised about the findings in this study. First, although Pope (2003) examined outcomes across multiple points in time, the follow-up assessments were conducted within the same year, reducing the likelihood that mutual dislike could predict increases in maladjustment. Relatedly, selective attrition occurred in the follow-up assessment, further limiting the predictive utility of mutual dislike on adjustment outcomes. Second, both the predictors (mutual disliking and peer rejection) and outcomes (adjustment problems) were derived from peer report rather than multiple sources. Finally, the peer-evaluated adjustment outcomes were based on peer nominations of unknown reliability.

The conflicting findings regarding the effects of mutual dislike relationships on children's concurrent and later adjustment illustrates the need for longitudinal studies that control for both prior adjustment and level of group liking in order to fully understand the impact of mutual dislike on subsequent outcomes. One explanation for the mixed pattern of results is that most have employed a cross-sectional design, and in so doing prevented consideration of other contributing factors to outcomes, such as prior adjustment. A second explanation is that researchers have differed in the operationalization of mutual dislike across studies, with some researchers employing peer nominations on the one hand, and others using peer ratings on the other. In order for studies to avoid conflating group-level rejection and mutual dislike dyads, separate measures are needed to assess peer rejection (i.e., peer nominations) and mutual dislike dyads (i.e., peer ratings).

In summary, the review of group-level and dyadic-level peer relationship difficulties outlined above suggests that youths experiencing problematic peer relationships provide evidence for the need to differentiate among the types of problematic peer relationships experienced by children. Inasmuch as mutual dislike is embedded within a network structure, the effects of mutual disliking and the social network are difficult to disentangle. Nevertheless, separating these effects apart is important to determine whether a child's mutual disliking experiences contribute uniquely to adjustment. However, inconsistencies and shortcomings in the mutual dislike literature provide ambiguous evidence for answering the question of the significance of this dyadic experience in relation to prior adjustment problems and the concurrent level of group liking by peers. The aim of the current study was to more thoroughly examine the role of mutual dislike in children's behavioral adjustment. As did Pope (2003), the current study used a longitudinal design that enables a control for prior adjustment and peer rejection. The current study extends the Pope (2003) investigation in several ways. First, using a longitudinal design, the current study examined the predictive power of mutual disliking, in comparison to peer rejection, in explaining adjustment outcomes (controlling for prior adjustment). The longitudinal design of the current study extended over three years, whereas the study by Pope (2003) examined mutual disliking across only a single school year. Second, the principal analyses of the current study used multi-method approach to study the effect of mutual disliking on adjustment. That is, sociometric nominations and ratings were used only for the predictors (mutual disliking and peer rejection) and teacher

reports for outcomes (adjustment). This is in contrast to Pope (2003), in which both predictors and outcomes were derived from peer report. Third, the current study examined mutual disliking among children in kindergarten and first grade. The Pope (2003) study investigated mutual disliking only among third grade children. Finally, the current study considered the characteristics (i.e., the degree of overall peer liking) of the disliked partner, a topic that is addressed in the section that follows.

The Level of Group-liking of an Enemy

As noted by Hartup (1996) and others (e.g., Ladd, 1999), to understand the significance of children's dyadic relationships, researchers need to move away from focusing on the mere presence of such relationships and consider the characteristics of individuals within the relationship. However, researchers who explored the influence of partners' characteristics have rarely considered them in juxtaposition with the effects of these relationships. This has been the case in the friendship literature, in which the effects of friendship have rarely been considered in relation to characteristics of individuals in the relationships (Berndt, Hawkins, & Jiao, 1999; Hartup, 1996). To date, research has demonstrated that children's friendships with peers may have beneficial or detrimental influences on their social development, depending on whether those friends are well adjusted or poorly adjusted (Berndt et al., 1999; Criss, Pettit, Bates, Dodge, & Lapp, 2002; Hodges et al., 1997; Ladd et al., 1999; Newcomb et al., 1999). In the present context, this suggests that it is important to consider not only whether children have a mutual dislike relationship, but whether these "enemies" are well liked by

the larger peer group. To illustrate the need for researchers to consider characteristics of members of the mutual dislike dyad, it is useful to examine studies in the friendship literature that have addressed the issue of friends' characteristics. Four recent studies that have considered friends' characteristics as important qualifiers of the impact of these relationships will be reviewed.

Hodges et al. (1997) examined the role of friendship as a moderator in the link between behavioral risk factors (i.e., externalizing and internalizing behavior problems) and victimization. Number of friends, friendship characteristics, and victimization of 229 children (119 boys) in the third through seventh grades were assessed in the spring of the school year. Both the number of friends and friendship characteristics (e.g., physical strength) were considered as separate moderators. Children's adjustment was based on teacher-rated externalizing and internalizing behavior problems in each grade. After averaging across friends' physical strength, analyses showed that this friendship characteristic moderated the relationship between both externalizing and internalizing behavior problems and victimization. That is, behavior problems were associated with victimization among children with low-strength friends, but not among those children with high-strength friends. These findings were interpreted as showing that children who possess behavioral problems (i.e., externalizing and internalizing difficulties) that place them at risk for victimization are less likely to be chronically abused if they have friends who are able to physically protect them. These findings are consistent with the notion that in addition to the presence of friends, the characteristics of those friends are important in adjustment.

Berndt et al. (1999) examined friends' behavioral adjustment and the stability of the relationships with friends as factors in students' adjustment across the transition from elementary school to junior high school. Participants were 101 students (48 girls) who were interviewed about their friendships in the spring of sixth grade and again in the fall of seventh grade. Assessments of students' behavioral adjustment were provided by teachers. Analyses showed that when one's friends' behavior problems were high and the relationship was stable from one school year to the next, then the target child's externalizing behavior problems increased between school years. However, if students' friendships were unstable from one year to the next, the target child's externalizing behavior problems decreased, even when friends were high in behavior problems. In other words, the negative influence of misbehaving friends was magnified when these friendships were stable from one school year to the next. When these friendships were unstable from one year to the next, friends did not have any negative influence and students' externalizing behavior problems improved (Berndt et al., 1999). A different pattern emerged for internalizing problems. Increases in internalizing problems were found for children whose friends were high on internalizing, but only if the friendship was unstable. Thus, the negative influence of withdrawn friends was inflated when these friendships were unstable.

In a third study that considered the role of friends' characteristics, Criss et al. (2002), using the same sample as that in the current study, examined the role of peer acceptance and friendship as possible moderators in the link between family adversity (e.g., ecological disadvantage and violent marital conflict) and

child externalizing behavior problems. Peer acceptance, friendship, and friends' aggressiveness of 585 children were assessed in kindergarten and first grade. Peer acceptance was operationalized as the standardized difference between the liking and disliking nomination scores, averaged across kindergarten and first grade. Friendship was operationalized as the highest reciprocated rating (i.e., reciprocal rating of "5") and the number of friends for kindergarten and first grade were averaged across kindergarten and first grade. Friends' level of aggressiveness was operationalized as the average aggression nominations of friends across kindergarten and first grade. Children's adjustment was assessed with teacher-rated externalizing behavior problems in second grade. To explore whether a friend's average level of aggressiveness played a significant role, Criss et al. (2002) computed a series of regressions in which teacher-rated externalizing behavior was predicted by family adversity, friendship, friends' level of aggressiveness, and their interactions. Interestingly, although the study found that friendships (as well as peer acceptance) moderated the impact of family risk factors, the friends' aggressiveness did not qualify this moderating pattern.

Finally, Vitaro et al. (2005) examined the impact of peer group affiliation on adjustment (i.e., delinquency and depression) among 376 participants from ages 10 through 13. Participants were divided into five groups based on pattern of deviant peer group affiliation: an "early affiliative" group, a "late affiliative" group, a "declining" group (i.e., a group that affiliates with deviant peers but declines contact thereafter), a "never" group (i.e., those who did not affiliate with deviant peers throughout the period covered in the study), and a "no friend"

group of children. Results of the study showed that although the “early affiliative” group of children were already more delinquent than children in the other four groups, this group showed the largest increases in delinquency over time. The “late affiliates” group became almost as delinquent as the “early group” by age 13, suggesting that having delinquent peer models of behavior (whether early or late) have a potent influence on behavior. Moreover, the “late affiliates” showed a steady increase in depression until age 13. Children in the “declining” group showed a steady decline in delinquent behavior up to age 13 and had consistently low depression scores. The findings of the Vitaro et al. (2005) study are consistent with the argument that the characteristics of one’s friends have a strong influence on the impact that a child’s friends have on adjustment.

Most of the research on friendship characteristics has tended to focus on the aggressiveness of those friends. To date, there has been no research on the general level of acceptance by peers of those friends, though it seems reasonable that friends’ popularity might also play a role in friendship relations, as well as in relationships based on enmity. Enemies’ characteristics have yet to receive study, however. As a first step in addressing this issue, the current study evaluated the overall peer acceptance levels of enemies to determine whether having relatively high-status or low-status enemies mitigates or exacerbates the relation between mutual disliking and behavior problems. As mentioned previously, if one member of the mutual dislike dyad is lower on group liking compared to the adversary, it seems reasonable to speculate that this dyadic experience may hold different adjustment implications for members of the dyad.

That is, it would be self-validating for a child to be involved in a mutual dislike dyad with another who is on average, not well liked by the larger peer group. Conversely, for the child who is low on group liking, the experience of mutual dislike may reinforce the low level of group liking that the child feels. As this brief discussion indicates, one potentially important issue that has been overlooked in the mutual dislike literature is whether the average level of group liking moderates the relationship between mutual disliking and adjustment outcomes. That is, it is not clear whether the level of group liking of one's adversary holds important developmental implications for the children involved. The current study evaluated this possibility in an effort to learn about the extent to which enemies' characteristics condition (i.e., moderate) the association between mutual dislike and adjustment outcomes.

Implications of Mutual Disliking on Adjustment for Boys and Girls

A final issue of interest in the current study was the extent to which sex differences will be found in overall level of mutual dislike and in patterns of relations between mutual disliking and adjustment outcomes. As mentioned earlier, whereas some researchers have argued that mutual dislike should be assessed only based on within-sex nominations and ratings (Parker & Gamm, 2003), other researchers have employed mixed-sex nominations and ratings (Pope, 2003; Rodkin, Pearl, Farmer, & Van Acker, 2003), consistent with the approach to be used in the proposed study. As mentioned previously, some years ago Asher and Hymel (1981) made the point that mixed-sex peer nominations and rating scores are appropriate when the research goal is to

examine behavioral antecedents and correlates of sociometric scores, which is the case here.

As just mentioned, gender differences might be observed in terms of overall levels of mutual dislike. Gender differences previously have been found for other aspects of children's social behavioral relationships, with boys being more likely to be rejected by their peers and to develop externalizing problems, and girls being more likely to develop internalizing problems (Parker & Asher, 1993). The sparse literature on mutual dislike is inconsistent with respect to whether boys and girls differ in numbers of such relationships. On one hand, four investigations (Card & Hodges, 2003; Hembree & Vandell, 2000; Parker & Gamm, 2003; Pope, 2003) using a similar age range across studies, found no significant differences between boys and girls and involvement in mutual dislike dyads. Hembree and Vandell (2000) considered the frequency of involvement in mutual disliking among third grade children. Results indicated that an equal percentage of boys and girls (32%) were involved in mutual dislike dyads. Card and Hodges (2003) examined the occurrence of mutual disliking among fourth through eighth grade children, and found that an equal percentage (25%) of boys and girls across these grades were involved in these dyads. Parker and Gamm (2003) also found equal involvement (29%) in mutual disliking among seventh through ninth grade boys and girls. Finally, Pope (2003) examined mutual disliking among third through sixth grade children and results showed that boys and girls were equally likely (38%) to be involved in these dyads. On the other hand, three additional studies (Abecassis et al., 2002; Rodkin et al., 2003;

Schwartz et al., 2003) found that involvement in mutual dislike dyads differed for boys and girls. Abecassis et al. (2002) examined mutual disliking among fifth through eighth grade children and found that more boys (25%) than girls (17%) were involved in these dyads. Rodkin et al. (2003) also found differences between boys and girls in third through fifth grades, with boys (37%) more likely than girls (21%) involved in mutual disliking. Finally, Schwartz et al. (2003) examined mutual disliking among third through fifth grade children and found that a higher percentage of boys (35%) were involved in these dyads compared to girls (23%).

Some studies (e.g., Abecassis et al., 2002; Hembree & Vandell, 2000) indicate similar adjustment for boys and girls involved in mutual dislike relationships, whereas others (e.g., Parker & Gamm, 2003; Pope, 2003) have shown that mutual dislike dyads hold different implications for boys' and girls' adjustment. For example, in one study where no sex differences in adjustment outcomes emerged, Hembree and Vandell (2000) found that for both boys and girls, those with two or more mutual dislike relationships were more aggressive and were more likely to be victimized. Similarly, Abecassis et al. (2002) found that boys and girls involved in mutual dislike were more aggressive and withdrawn compared to peers not involved in this type of dyad. On the other hand, some studies have found differential outcomes for boys and girls involved in mutual dislike dyads. For example, the results of a study by Parker and Gamm (2003) indicated that involvement in mutual dislike dyads was associated with increases in antisocial behavior and bullying in boys but victimization, withdrawal,

and depression in girls. In another study, Pope (2003) reports that the number of mutually disliked relationships for girls was associated with lower social preference, as well as higher withdrawal and immaturity. In contrast, boys involved in mutual dislike dyads were more aggressive. To extend these studies, the current study explored whether child sex moderates the relationship between mutual dislike and adjustment.

Conclusion

To summarize, past research and theorizing on mutual dislike suggest that it overlaps with, but is distinct from, peer rejection with regard to adjustment outcomes. However, the issues of whether mutual disliking dyads should be considered a problematic peer relationship for children and whether outcomes are differentially related for boys and girls are still unclear. Although speculations have been raised suggesting that the average level of group liking of a child's foe will influence the impact that mutual dislike has on adjustment, research investigating this issue is nonexistent. Moreover, with regard to differences in adjustment outcomes for boys and girls involved in mutual disliking, the small number of studies examining sex differences in adjustment among mutual dislike dyads are inconsistent, suggesting the need for further examination. On the basis of previous research suggesting that group-level and dyadic peer relations make unique contributions to adjustment, it may be that mutual disliking predicts adjustment outcomes above and beyond the effects of peer rejection, that the average level of group liking of a child's nemesis will moderate these adjustment outcomes, and that child sex will moderate the association between mutual

disliking and adjustment outcomes.

The purpose of the current study was to assess the prospective predictive association between mutual dislike and children's behavior problems (i.e., externalizing and internalizing behavior problems), controlling for initial levels of behavioral adjustment. The research questions addressed were (1) To what extent is mutual dislike associated with later externalizing and internalizing behavior problems? (2) Does mutual dislike uniquely predict adjustment outcomes when controlling for peer rejection? (3) Is mutual dislike differentially related to adjustment outcomes for boys and girls? and (4) Does the average level of group liking of a child's adversary moderate the relationship between mutual dislike and subsequent behavior problems?

III. METHOD

Participants and Overview

Participants in the ongoing Child Development Project (Pettit, Bates, & Dodge, 1997) were originally recruited at approximately age five, in two cohorts (1987 and 1988), from three sites: Nashville and Knoxville, TN and Bloomington, IN. At kindergarten pre-registration, parents were randomly approached by research staff and asked to participate in a longitudinal study of child development; about 75% agreed to do so. Because approximately 15% of children at the targeted schools did not pre-register, 15% of the sample was comprised of late-registering families who were recruited at the beginning of school through letters and telephone contact.

The initial sample of 585 participants was diverse in terms of child sex (52% male), ethnicity (81% European American, 17% African American, 2% other ethnic groups), family composition (26% lived with single mothers), and socioeconomic status (Hollingshead [1975] index of socioeconomic status $M = 40$, $SD = 14$, range = 8 - 66), with 9%, 17%, 25%, 33%, and 16% in Hollingshead's five classes (from lowest to highest). Follow-up assessments were conducted annually. The present study examined peer experiences in kindergarten and first grade and behavioral adjustment in kindergarten and second grade. Behavioral adjustment was indexed by teacher-rated externalizing

and internalizing behavior problems, the types of problems that have been studied most extensively in research on problematic peer relations. Complete data are available for 505 children (262 males, 243 females). These participants are highly similar to the original participants with respect to child sex (51.8% male), ethnicity (80% European American, 18% African American, 2% other ethnic groups), and socioeconomic status (Hollingshead [1975] index of socioeconomic status $M = 39.8$, $SD = 13.3$), with 7%, 16%, 27%, 34%, and 16% in Hollingshead's five classes (from lowest to highest). Comparisons of those participants without complete data and those with complete data on year 1 measures revealed no significant differences in demographic characteristics or in kindergarten adjustment.

Procedure

Individual sociometric interviews were administered in each child's class in kindergarten and first grade to all peers whose parents consented to their participation (at least 75% of each class participated). The number of children participating in the sociometric assessment in kindergarten, first grade, or both was 511. Teachers completed the 112-item Child Behavior Checklist-Teacher Report Form (CBCL-TRF; Achenbach, 1991) in the winter and spring of the school year to assess behavior problems, and data from teachers' reports in kindergarten and second grade were used in the present study.

Sociometric procedure. Individual sociometric interviews were conducted in the winter of each school year. Sociometric assessments were conducted in small groups in children's classrooms. Each child was shown photographs of all classmates and asked to nominate up to three peers they liked and three peers that they disliked. Each child was also asked to rate how much he or she liked the classmate on either a 3-point or 5-point scale, with higher ratings indicating higher liking and a rating of "1" indicating the lowest possible rating. In kindergarten, 47% of the sample ($n = 260/553$) completed peer ratings based on a 3-point scale, and in first grade, 25% of the sample ($n = 119/470$) completed peer ratings using a 3-point scale. The average numbers of mutual dislike relationships in kindergarten and first grade classrooms using the 3-point scale and 5-point scale were 1.12 and 1.28, respectively, a nonsignificant difference, $F(1, 571) = 1.41, p = .29$. To account for differences in class size in kindergarten ($M = 21.51$) and first grade ($M = 18.51$), scores for mutual dislike dyads and peer rejection were standardized within classrooms.

Measures

Peer rejection. Standardized peer nominations of "disliking" were used to determine group-level rejection in each year. Using the sociometric classifications from both kindergarten and first grade, scores from both years, $r = .72, p < .001$, were averaged to yield an index of peer rejection (see Appendix A for Data Preparation). Although peer status has most often been examined with respect to the categories created by Coie et al. (1982), continuous measures of peer liking and disliking are often used in peer relations research (e.g.,

Brengden, Vitaro, & Bukowski, 1998; Sippola, Bukowski, & Noll, 1997) to assess children's social standing within the peer group. Moreover, peer nominations were used to measure peer rejection and ratings were used to measure mutual disliking (described below) to lessen the methodological overlap between the two measures.

Mutual dislike. Mutual dislike was operationalized as reciprocated rating of "1" given and received by two peers. The total number of mutual disliking was calculated separately for kindergarten and grade 1. Data from both years, $r = .83$, $p < .001$, were averaged to compute the final mutual disliking variable (see Appendix A for Data Preparation). A composite score across kindergarten and grade 1 for mutual disliking was created for several reasons. First, using an average score across grades ensures that an experience is captured that is not unique to a specific year. Second, averaging across years has the benefit of making the measurement of mutual disliking more reliable.

Enemies' level of group liking. The average level of group liking of a child's adversaries was operationalized as the standardized number of "liked" nominations received from the peer group, averaged across enemies. Data from kindergarten and first grade were correlated, $r = .70$, $p < .001$, and were averaged to compute the final level of group liking variable (see Appendix A for Data Preparation).

Behavioral Adjustment

Externalizing behavior problems. During the winter and spring of the school year, kindergarten and second grade teachers completed the 112-item Child Behavior Checklist-Teacher Report Form (CBCL-TRF; Achenbach, 1991). The highly reliable 55-item Externalizing Behavior Problems scale (1-week test-retest = .90) was used for this study. Teachers responded to each item (e.g., “argues a lot,” “is disobedient,” and “is mean to others”), using a 3-point scale that ranged from not true for the child (0), somewhat or sometimes true (1), to very true or often true (2). Raw item scores were summed to yield the scale score. The alphas for the externalizing scale was .91 in kindergarten and .88 in second grade.

Internalizing behavior problems. The Internalizing Behavior Problems scale was used for this study. It consists of a subset of 39 items within the 112-item Child Behavior Checklist-Teacher Report Form (CBCL-TRF; Achenbach, 1991). Teachers responded to each item (e.g., “is sad,” “feels worthless or inferior,” and “too fearful or anxious”), using a 3-point scale that ranged from not true for the child (0), somewhat or sometimes true (1), to very true or often true (2). Raw item scores were summed to yield the scale score. The alphas for the internalizing scale was .88 in kindergarten and .84 in second grade.

IV. Results

Results are discussed in four sections corresponding to each research question. First, descriptive statistics will be presented. The first section will also present bivariate correlations with an emphasis on the links between adjustment outcomes and adjustment-relevant variables (i.e., initial levels of adjustment, mutual disliking, peer rejection, and group liking of one's enemies). This will be followed by a description of analyses comparing similarities between groups of children with only one mutual dislike relationship to those with multiple mutual dislike affiliations. In the second section, regression analyses examining the main effects of mutual dislike and peer rejection (after controlling for initial levels of adjustment) on the prediction of subsequent behavior problems are presented. This section also includes a summary of moderated regression analyses examining whether child sex moderates the association between mutual disliking (as well as peer rejection) and adjustment outcomes. Finally, results of moderated regression analyses that examine whether the average level of group liking of one's adversary moderates the relationship between mutual disliking and adjustment outcomes are presented.

Descriptive Statistics and Intercorrelations among Variables

The means, standard deviations, ranges, and number of participants for mutual disliking, peer rejection, externalizing behavior problems, and internalizing

behavior problems are shown in Table 1. Among the 578 participants included in the mutual dislike analyses, 56% ($n = 322$) had at least one mutual dislike relationship in either kindergarten or first grade. Of the 322 children with at least one mutual dislike relationship in either year, 54% were boys ($n = 175/322$) and 46% were girls ($n = 147/322$). Of the 196 children (33% of the sample) with at least one mutual dislike relationship in both kindergarten and first grade, 54% were boys ($n = 105/196$) and 46% were girls ($n = 91/196$). The average number of mutual dislike relationships across kindergarten and first grade was .67, with a range from none to seven. Boys and girls did not differ significantly (via t-test) in average number of mutual dislike relationships ($M_s = .69$ and $.65$, respectively, $t(576) = .43$, $p = .67$).

The peer rejection score was near zero, reflecting that standardized scores were averaged across kindergarten and first grade. The average of enemies' standardized liking scores was positive. The behavior problem scores were skewed, as typically is found in the use of these measures with community samples.

Table 1

Means and Standard Deviations of Mutual Dislike, Peer Rejection, and BehaviorAdjustment Variables

Measure	<u>M</u>	<u>SD</u>	<u>Range</u>	<u>N</u>
Child sex				585
Mutual dislike ^a	.67	.92	0-7	578
Peer rejection ^a	-.12	.80	-1.46-3.43	577
Level of group liking ^a	.63	.50	-1.45-2.93	320
Kindergarten externalizing behaviors	5.75	8.68	0-47	571
Kindergarten Internalizing behaviors	4.25	5.18	0-30	571
Second grade externalizing behaviors	7.02	10.42	0-57	514
Second grade internalizing behaviors	5.81	6.28	0-40	514

^a Scores averaged across kindergarten and first grade.

Correlations among variables, shown in Table 2, indicate considerable overlap between mutual disliking and peer rejection ($r = .44$). Mutual disliking was unrelated to peer-group liking of enemies; peer rejection was modestly but significantly associated with peer-group liking of enemies ($r = -.16$). Externalizing problems showed moderately strong cross-grade stability ($r = .55$); internalizing problems were only modestly stable across grades ($r = .20$). Externalizing problems and internalizing problems were significantly and positive related in

both kindergarten ($r = .15$) and first grade ($r = .36$).

Children with higher externalizing scores in kindergarten had significantly higher mutual disliking ($r = .30$) and peer rejection ($r = .43$) scores. Kindergarten internalizing problems were unrelated to mutual disliking or peer rejection.

Children with higher externalizing scores in grade 2 also had higher levels of mutual disliking ($r = .31$) and peer rejection ($r = .47$). Grade 2 internalizing was modestly but significantly associated with both mutual disliking ($r = .16$) and peer rejection ($r = .17$). As can be seen, links between externalizing problems and peer-relationship difficulties were somewhat stronger for peer rejection than for mutual disliking. Group liking of enemies was not significantly related to any behavior-problem score.

Consistent with the t-test reported earlier, child gender was not significantly related to mutual disliking. Gender was, however, significantly related to peer rejection ($r = -.18$), and to externalizing problems ($r_s = -.14$ and $-.15$ for kindergarten and second grade, respectively), indicating that boys tend to have higher peer-rejection scores and higher externalizing scores, compared to girls. No gender differences were found for internalizing problems.

Table 2

Correlations Among Mutual Dislike, Peer Rejection, and Behavior Adjustment Outcomes

Variables	1	2	3	4	5	6	7	8
1. Mutual dislike ^a		.44***	-.08	.30***	.05	.31***	.16***	-.02
2. Peer rejection ^b			-.16**	.43***	.06	.47***	.17***	-.18***
3. Enemies' level of group liking ^c				-.05	-.01	-.06	-.07	.15**
4. Kindergarten externalizing behaviors					.15***	.55***	.11**	-.14***
5. Kindergarten internalizing behaviors					.01	.20***		-.02
6. Second grade externalizing behaviors						.36***		-.15**
7. Second grade internalizing behaviors								.05
8. Child sex								

Note: *p < .05; **p < .01; ***p < .001

Note: Child sex coded as 1 = male, 2 = female

^a Scores averaged across kindergarten and first grade. ^b Standardized negative nominations averaged across kindergarten and first grade. ^c Standardized positive nominations averaged across kindergarten and first grade.

To insure that the relation between mutual disliking and other variables was not attributable to the fact that large numbers of children had mutual disliking scores of 0, correlations were computed for the subset of children who had at least one mutual disliking relations ($n = 322$). These correlations were highly similar to those shown in Table 2. All tabled correlations that were significant remained significant in the subset analysis. The magnitudes of the correlations were attenuated somewhat, most notably for the correlation between mutual disliking and peer rejection ($r = .31$ in the subset analysis vs. $r = .44$ in the full sample analysis) and for the correlation between mutual disliking and kindergarten externalizing ($r_s = .22$ and $.30$). Because the overall patterns were highly similar, the full-sample mutual disliking score was retained for use in the principal analyses.

Do Mutual Disliking and Peer Rejection Uniquely Predict Grade 2 Externalizing and Internalizing Behavior Problems?

The purpose of these analyses was to examine whether mutual disliking and peer rejection were uniquely predictive of behavior problems in second grade, and whether these predictive links continued to be significant after controlling for initial levels of behavior problems in kindergarten. Also of interest was whether child sex moderated the relation between the peer-relation scores and grade 2 outcomes. Hierarchical regression analyses were computed, separately for grade 2 internalizing and externalizing problems, with the corresponding kindergarten behavior-problem score and child sex entered in the first step, mutual disliking and peer rejection entered simultaneously in the

second step, and the interactions between child sex and mutual disliking and between child sex and peer rejection entered simultaneously in the third step. These interaction terms were computed as the multiplicative product of child sex and mutual disliking (or peer rejection). The peer problem scores were centered prior to computing the interaction terms, as recommended by Jaccard, Turrisi, and Wan (1990). Significant interactions were decomposed by computing slopes at each level of the child-sex categorical variable (i.e., for boys and for girls), following the guidelines presented by Aiken and West (1991). This entailed calculations of standard error and t-scores to examine which slopes were significantly different from zero and which slopes were not.

Predicting externalizing problems. As can be seen in Table 3, kindergarten externalizing and child sex, entered in the first step, accounted for a significant portion of the variance in grade 2 externalizing, $R^2 = .30$, $p < .001$. Kindergarten externalizing was significantly associated with grade 2 externalizing ($\beta = .54$), consistent with the correlational results presented earlier. Child sex was marginally associated with grade 2 externalizing ($\beta = -.07$), also consistent with the earlier analysis showing that boys have higher externalizing scores than girls.

The two peer-relations scores, entered in the second step, collectively accounted for 7% of the variance in grade 2 externalizing problems. Inspection of the betas shows that both mutual dislike ($\beta = .08$) and peer rejection ($\beta = .24$) were significant predictors of grade 2 externalizing. The magnitude of these relations, as can be seen, indicate a stronger predictive link for peer rejection than for mutual disliking with respect to grade 2 externalizing problems.

The interaction terms involving child sex were entered on the third step and accounted for a significant portion of the variance in grade 2 externalizing, $\Delta R^2 = .01$, $p = .05$. The mutual dislike X child sex interaction term was marginally significant, $\beta = .07$, $p = .06$. Decomposing this interaction revealed that mutual disliking was significantly associated with grade 2 externalizing for boys (slope = 1.796, $p < .01$) but not for girls (slope = .25, $p = ns$). These slopes are depicted in Figure 1.

Predicting internalizing problems. As shown in Table 3, child sex and kindergarten internalizing, entered on the first step, accounted for a significant portion of variance in grade 2 internalizing, $R^2 = .04$, $p = .001$. Only kindergarten internalizing was significantly associated with grade 2 internalizing, $\beta = .20$, $p = .001$. The peer-problem measures, entered on the second step, were significantly associated with grade 2 internalizing, $\Delta R^2 = .04$, $p < .001$. Both mutual dislike ($\beta = .11$) and peer rejection ($\beta = .12$) contributed to this prediction, at comparable magnitudes. The two child-sex interaction terms were entered on the third step. The step did not produce a significant ΔR^2 , and neither interaction term was significant.

Table 3

Regression Analyses Examining the Relationship between Mutual Dislike,
Peer Rejection, and Adjustment Outcomes

	Grade 2 Externalizing		Grade 2 Internalizing	
	β	ΔR^2	β	ΔR^2
Step 1				
Kindergarten externalizing	.54***	.30***		
Child sex	-.07 ⁺			
Step 2				
Mutual dislike ^a	.08*	.07***		
Peer rejection ^a	.24***			
Step 3				
Mutual dislike x Child sex	.07 ⁺	.01*		
Peer rejection x Child sex	.04			
Step 1				
Kindergarten internalizing			.20***	.04***
Child Sex			.05	
Step 2				
Mutual dislike ^a			.11*	.04***
Peer rejection ^a			.12*	
Step 3				
Mutual dislike x Child sex			.02	.01
Peer rejection x Child sex			.01	

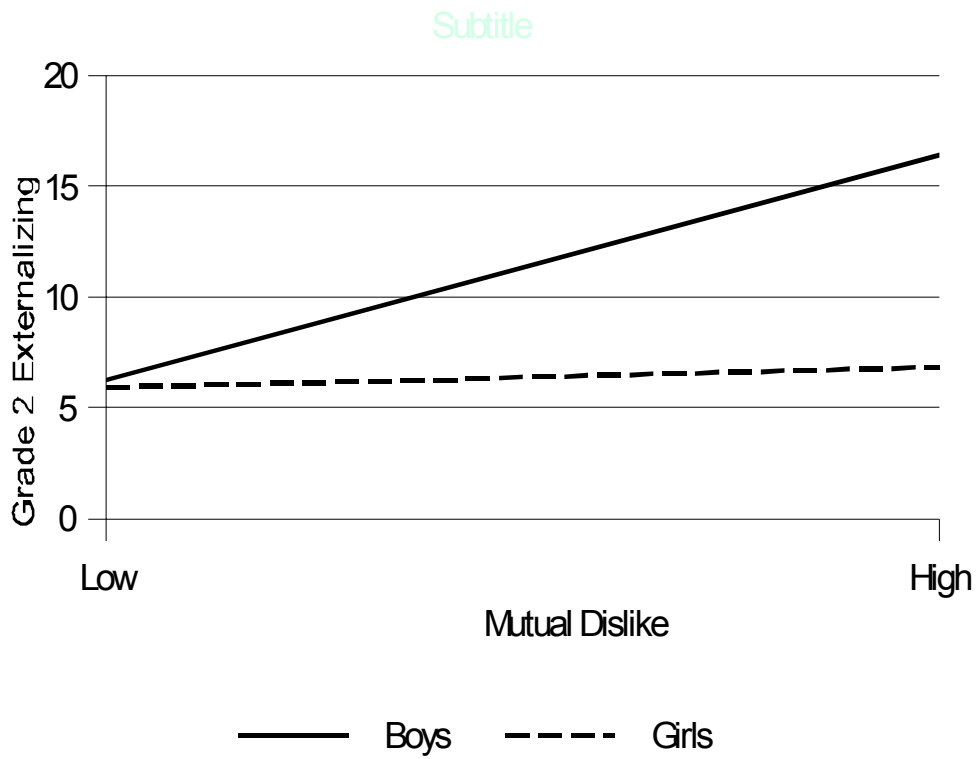
Note: * $p < .05$; ** $p < .01$; *** $p < .001$; ⁺ indicates marginally significant effect at $p < .06$

Note: All beta weights reported are standardized.

^a Scores averaged across kindergarten and first grade.

Figure 1

Slopes depicting the association between mutual disliking and second grade externalizing behavior problems dependent on child sex



Does Enemies' Group-level Liking Moderate the Association between Mutual Disliking and Grade 2 Externalizing and Internalizing Behavior Problems?

The goal of these analyses was to determine whether enemies' group-liking moderated the association between mutual disliking and subsequent behavior problems. Regression analyses with interaction terms were used to examine this issue. Separate analyses were conducted with grade 2 externalizing problems and internalizing problems as outcomes. To investigate the issue of interest—enemies' liking as a moderator of mutual disliking—up to three sets of analyses were conducted. In the first, the association between mutual disliking and grade 2 externalizing was examined, with enemies' disliking as a moderator. If the interaction term was significant, it was interpreted following the procedure described below. To test the robustness of the interaction effect, a follow-up analysis was conducted with kindergarten adjustment added as a control variable (i.e., entered on the first step). If the interaction term remained significant, then a third, even more stringent, analysis was conducted, in which kindergarten adjustment and peer rejection were controlled, with both entered on the first step.

Predicting externalizing problems. The first set of analyses consisted of a moderated regression with mutual disliking and enemies' group-level liking entered on the first step, with each variable centered, following the recommendations of Jaccard et al. (1990). The interaction between mutual disliking and enemy liking (i.e., their multiplicative product) was entered on the

second step. If the interaction was significant, slopes were computed at three levels of the moderator, enemies' disliking (i.e., one standard deviation above the mean, 0, and one standard deviation below the mean), as recommended by Aiken and West (1991). Also recommended by Aiken and West (1991), calculations of standard error and t-scores were used to examine which slopes were significantly different from zero and which slopes were not.

As can be seen in Table 4, mutual disliking and enemies' liking, entered on the first step, accounted for significant variance in grade 2 externalizing, $R^2 = .08$, $p < .001$. Only mutual dislike contributed uniquely to this prediction, $\beta = .27$. The interaction term, entered on the second step, was not significant. Therefore, additional follow-up analyses, controlling for kindergarten adjustment and/or peer rejection were not conducted.

Predicting internalizing problems. Also shown in Table 4 are the results of the analysis with grade 2 internalizing as the outcome. Enemies' liking and mutual disliking, entered on the first step, accounted for a significant portion of grade 2 internalizing problems, $R^2 = .05$, $p < .001$. Only mutual disliking contributed significantly to this prediction, $\beta = .17$. The interaction between enemies' liking and mutual disliking was significant. This interaction was decomposed in the manner described earlier. Mutual disliking was significantly associated with grade 2 externalizing at high (slope = 2.43, $p < .01$) and medium (slope = 1.20, $p < .05$) levels of enemies' liking but not low levels (slope = -.03, *ns*) of enemies' disliking (see Figure 2).

Follow-up analyses were conducted with controls for kindergarten

internalizing and peer rejection. When kindergarten internalizing was controlled (entered on the first step), the previously significant interaction became marginally significant, $\Delta R^2 = .01$, $p = .097$). When both kindergarten internalizing and peer rejection were entered first as controls, the interaction term was no longer significant, $\Delta R^2 < .01$, $p = .14$.

Table 4

Summary of Analyses of the Moderating Role of Average Level of Group Liking in the Prediction of Second Grade Adjustment Outcomes from Mutual Dislike

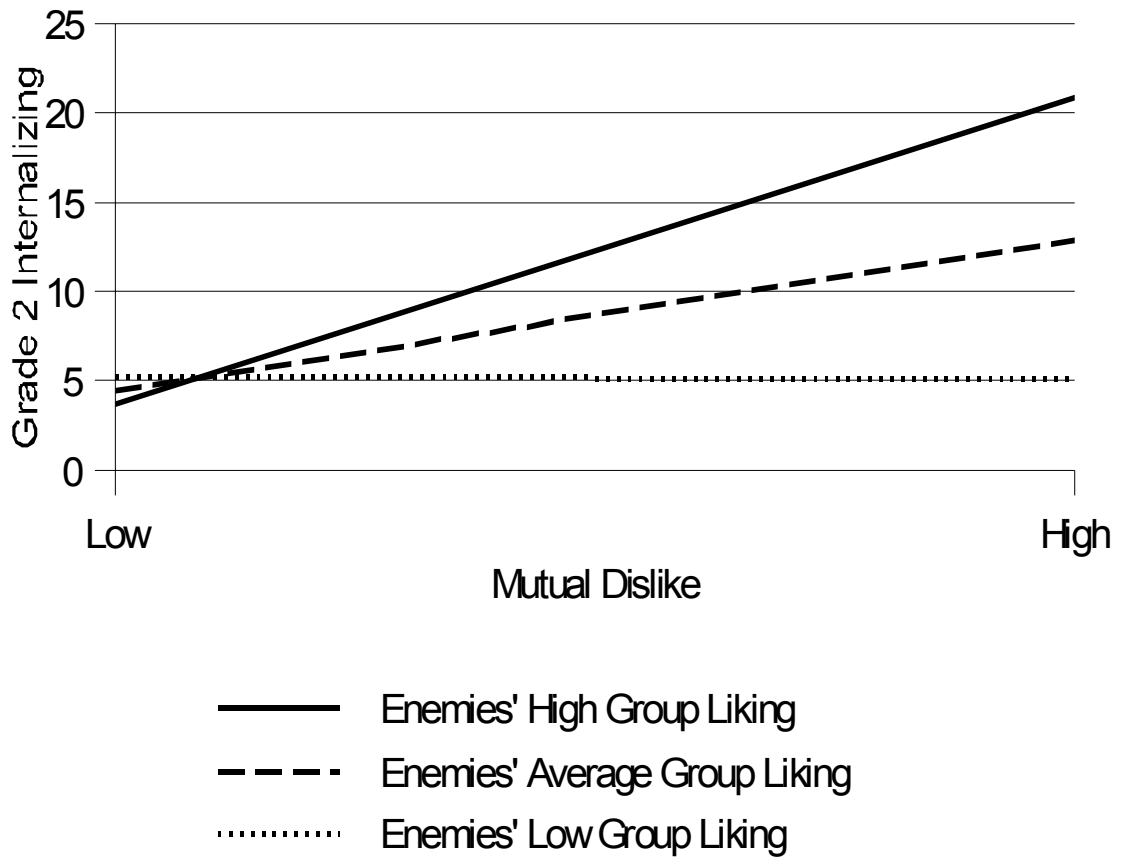
Adjustment Outcome	Step	Effects Entered on Step	β	ΔR^2
Externalizing behavior	1	Enemies' level of group liking	-.01	
		Mutual dislike	.27	.08***
	2	Enemies' level of group liking	-.06	.003
		X Mutual dislike		
Internalizing behavior	1	Enemies' level of group liking	.00	
		Mutual dislike	.17	.05***
	2	Enemies' level of group liking	.14	.02*
		X Mutual dislike		

Note: * $p < .05$; ** $p < .01$; *** $p < .001$;

Note: All beta weights reported are standardized.

Figure 2

Slopes depicting the association between mutual disliking and second grade internalizing behavior problems at three levels of enemies' level of group liking



V. Discussion

The principal goal of this study was to evaluate the possible link between mutual dislike relationships and children's adjustment difficulties in the early elementary school years. Three sets of issues were considered. First, the association between the dyadic indicator of mutual dislike and the group-based indicator of peer rejection was examined. Next, the prospective relation between mutual dislike and peer rejection, assessed in kindergarten and first grade, and teacher-rated internalizing and externalizing behavior problems, assessed in second grade, was evaluated. This set of analyses also controlled for earlier (kindergarten) problem behavior, and considered the impact of child sex as a moderator of relations between peer problems and subsequent adjustment problems. Finally, a key characteristic of children's "enemies"—their level of liking by the class as a whole—was tested as a moderator of the impact of mutual disliking. Results indicated that whereas the measures of mutual disliking and peer rejection overlapped to a considerable degree, each contributed non-redundantly to the prediction of later behavior problems, even after controlling for earlier behavior problems. Importantly, whether one's enemies were liked by the group moderated the relation between mutual disliking and behavior problems. Mutual disliking was associated with internalizing (but not externalizing) behavior problems only when enemies were average or above in peer regard. In the

sections that follow each of these sets of findings will be discussed in relation to relevant literature. The chapter concludes with a discussion of strengths and limitations of the present study, and recommendations for future research.

Incidence of Mutual Dislike

Mutual disliking was found to be a fairly common experience in the current study of early-elementary school-age children. More than half of the children (56%) had at least one mutual dislike relationship in either kindergarten or first grade, and 33% had at least one mutual dislike relationship in both kindergarten and first grade. These frequencies generally are in line with those reported by other researchers who also used a ratings-based operationalization of mutual dislike, but who focused on older age groups (e.g., Parker & Gamm, 2003; Pope, 2003). Children tended not to be involved in large numbers of such relationships (the mean number was less than 1 in both kindergarten and first grade), although the range (none to 7) was considerable, also consistent with past research (Abecassis et al., 2002; Pope, 2003). It therefore appears that mutual disliking, at least when operationalized as reciprocated low liking ratings, has already emerged as a characteristic of peer experience by kindergarten. It would seem reasonable to expect that mutual disliking among classroom peers occurs at even earlier ages.

Sex differences were not found in terms of presence versus absence of mutual disliking, or in average numbers of such relationships. Of those children with at least one mutual dislike relationship in either kindergarten or first grade, slightly more than half (54%) were boys. Similarly, among those children with at

least 1 mutual dislike relationship in both kindergarten and first grade, 54% were boys. The average number of mutual dislike relationships also was similar for boys and girls in both kindergarten ($M_s = .84$ and $.74$) and first grade ($M_s = .53$ and $.52$). Sex differences generally have not been found in the research on mutual disliking, although there is some suggestion that boys begin to experience more of these relationships than girls in the late middle-childhood and adolescent years. Abecassis et al. (2002), using a nominations-based assessment, found higher levels of mutual dislike for adolescent boys compared to adolescent girls, but no differences among school-age boys and girls.

The general lack of sex differences in mutual disliking stands in contrast to the sex differences typically reported for peer rejection, in which boys have been found to be disproportionately represented (see Rubin et al., 1998). In the present study boys were found to have significantly higher peer rejection scores, compared to girls. It is not clear why boys and girls tend to be more similar with respect to level of mutual disliking compared to peer rejection. Peer rejection is more strongly correlated with externalizing problems than with internalizing problems (in the current study and in the literature more generally; see Ladd, 1999) and boys tend to have higher levels of externalizing problems than do girls (again, in the current study as well as in the broader literature). However, the current study's measure of mutual dislike also correlated more strongly with externalizing than with internalizing problems. It remains for future research to explore in more detail gender differences and similarities in mutual disliking across development.

Overlap of Mutual Dislike and Peer Rejection

There is a growing interest in peer relations research in examining the overlap between differing aspects of peer experience, and testing whether these different aspects relate in similar (or overlapping) or different ways to social, behavioral, and academic adjustment. Past research on mutual disliking has found that it tends to covary with peer rejection, and some have suggested that this overlap in fact explains why mutual disliking is associated with adjustment difficulties (Abecassis et al., 2002; Pope, 2003). In the present study mutual disliking, based on reciprocated low ratings of “liking,” correlated modestly ($r = .44$) with peer rejection, indexed through peer nominations of disliking. The degree of empirical overlap found here is similar to that reported by other investigators, where reported correlations between mutual disliking and peer rejection have ranged from the .30s (Hembree & Vandell, 2000; Pope, 2003) to the .40s (Rodkin et al., 2003; Schwartz et al., 2003). That mutual disliking and peer rejection are linked empirically is not surprising, given that unilateral disliking is a requirement for reciprocated disliking. That is, if no peer dislikes a child, then by definition that child must have a mutual disliking score of 0, even if that child reports disliking one or more peers. It is recognized that nominations of disliking and low ratings of liking do not correspond perfectly, and, in fact, the rationale for using the former to assess peer rejection and the latter to assess mutual disliking was that doing so would lessen the problem of operational (methodological) overlap. Still, it no doubt is the case that part of the reason that

mutual disliking and peer rejection are correlated is that both stem, in part, from peers' disliking of the target child.

It also is possible that the characteristics of individual children that increase the likelihood of peer rejection likewise increase the probability of being involved in a mutual dislike dyad, and that the characteristics of children who have more "enemies" in a class also contribute to an increased likelihood of them being (or becoming) rejected by the broader peer group. These behaviors likely would include aggression, disruptiveness, and related externalizing problems, as well as excessively shy or withdrawn behavior (Hartup & Abecassis, 2002). Both types of peer problems also would be expected to be higher among children lacking social skills and competencies (e.g., friendliness and assertiveness) needed for successfully navigating the complex social world of peers. Alternatively, in all probability mutual dislike and peer rejection are related to one another in a bidirectional manner, with mutual disliking fostering more peer dislike, and peer dislike increasing the likelihood of mutual disliking.

In spite of their empirical overlap, the current study found evidence that mutual disliking and peer rejection contribute in non-redundant ways to the prediction of subsequent externalizing and internalizing behavior problems. These findings are discussed in the sections that follow.

Links between Mutual Dislike and Behavior Problems

Correlational findings showed that children with more externalizing problems in kindergarten and second grade had higher levels of mutual disliking, and higher peer rejection scores. Kindergarten internalizing problems were not

associated with mutual disliking and peer rejection, but both types of peer problem were significantly (albeit modestly) associated with more internalizing problems in second grade. Follow-up analyses revealed that the predictive links between mutual dislike and behavior problems continued to hold after controlling for earlier behavior problems and for peer rejection. In the two sections that follow, these findings are discussed separately for externalizing problem outcomes and for internalizing problem outcomes.

Links between mutual dislike and concurrent and subsequent externalizing behavior problems.

An extensive literature has documented relations between aggression, disruptive behavior, and associated externalizing problems and children's levels of disliking by peers (see Ladd, 1999; Rubin et al., 1998). The current study's findings show that externalizing problems antecede and co-occur with both group-level disliking (i.e, peer rejection) and dyadic-level reciprocated disliking. The link between externalizing and problematic peer relationships may stem from both the presence of antagonistic behavior that alienates peers, and from the absence of more skillful, prosocial behavior that might endear a child to peers. As mentioned previously, Coie (2004) describes a cycle in which both externalizing (e.g., disruptive) and internalizing (e.g., shy, withdrawn) behavior problems lead to low peer regard, which in turn limits opportunities for developing key social skills, such as initiating and maintaining friendships, and learning strategies for resolving conflict. Coie (2004) notes that the cycle likely repeats itself, such that

early externalizing problems lead to difficulties within the peer group, and the resulting peer rejection leads to even higher levels of antisocial behavior.

Similar processes might explain the link between early externalizing and dyadic-level mutual disliking. Children who behave in aggressive, antisocial ways toward peers may find that some of those peers react especially negatively, and over time the two children develop an adversarial relationship. Children involved in mutual disliking may use past experiences with these peers as a basis for future interactions with an adversary, and this guarded posture may contribute to perpetuating negative interactions between the dyad members. Moreover, mutually disliking peers are less concerned with resolving conflict, and perhaps are more vested in perpetuating it, compared to friends (Abecassis et al., 2002). In this sense, mutually disliking peers share a commitment to sustaining conflict (Abecassis et al., 2002). From this perspective, mutual disliking is an active socializing force that contributes directly to increased externalizing difficulties (Hartup, 2003). As with the aggression-rejection cycle described earlier (Coie, 2004), it is likely that aggressive behavior fosters the development of mutual disliking by inviting and sustaining dislike among peers (Abecassis, 2003), and that children who have multiple mutual enemies show an increase in their level of aggression and associated externalizing problems over time.

Because mutual disliking and peer rejection were found to overlap, and because each was significantly associated with externalizing problems, the possibility remained that any predictive links between mutual disliking and problem behavior could be accounted for by peer rejection. This issue has

received some attention in the mutual dislike literature. In cross-sectional research, Schwartz et al. (2003) found that mutual disliking did not predict behavior problems once peer rejection was controlled. Schwartz et al. (2003) suggested that peer rejection may account for more behavior problems because of social exclusion, and hostile overtures from a larger range of peers, compared to mutual dislike. On the other hand, Parker and Gamm (2003) found that mutual disliking continued to predict behavior problems after controlling for peer rejection. However, Parker and Gamm (2003) reported that, after controlling for peer rejection, the effects varied somewhat as a function of child sex: involvement in mutual dislike dyads was associated with higher levels of externalizing behavior problems only in boys (consistent with the findings of the present study). Parker and Gamm (2003) speculate that the basis for this sex difference may be that boys' mutual dislike dyads are characterized by higher levels of externalizing behavior problems compared to girls. Abecassis et al. (2002) further suggest that, given boys in their study were viewed as exhibiting more externalizing-type behaviors (i.e., aggression), involvement in mutual dislike dyads served as a context that instigates more externalizing difficulties (2002).

A more rigorous test of the link between mutual disliking and externalizing requires a longitudinal analysis, in which both earlier problem behavior and concurrent peer rejection are controlled. Such an analysis was undertaken in the present study, and showed that both peer rejection and mutual dislike were uniquely predictive of later externalizing problems, after accounting for earlier

problems. Peer rejection accounted for most of this prediction, but mutual dislike still made a modest but significant contribution. And, as just mentioned, the link between mutual dislike and later externalizing was stronger for boys than for girls.

In the only prior study of mutual disliking using a longitudinal design, Pope (2003) found similar results, using similar measures. Pope (2003) found that mutual disliking was significantly and positively associated with externalizing behavior problems (i.e., peer-reported aggression), but this association became non-significant after controlling for initial levels of externalizing problems and peer rejection. There are several methodological differences between the Pope (2003) study and the present study that may account for this finding. First, although Pope assessed behavior problem outcomes longitudinally, the follow-up assessments were conducted within the same year. This resulted in a high level of stability in behavior problems, thereby reducing the likelihood that mutual dislike could predict changes in behavior problems. Second, both the predictors (mutual disliking and peer rejection) and outcomes (adjustment problems) were derived from a single source - peer report. Finally, the peer-evaluated adjustment outcomes were based on peer nominations of unknown reliability. All of these methodological issues likely contributed to the Pope (2003) findings that mutual dislike did not predict adjustment beyond peer rejection.

The findings from the present study suggest that something in the experience of mutual disliking may foster the continuing development of externalizing behavior problems, and that mutual disliking (and peer rejection) is

not merely a marker for pre-existing problems, but a source of potential stress and a context for further developing an antisocial behavioral repertoire. Hartup (2003) argues that because mutual disliking is likely characterized by hostility and conflict, mutual dislike relationships attenuate the benefits of friends and increase aggression and antisocial behavior. Hartup (2003) also asserts that because aggressive children have a propensity for involvement in mutual dislike dyads, these relationships cultivate aggression and the growth of externalizing behavior problems.

The finding that mutual disliking was associated with increases in subsequent externalizing behavior problems for boys is consistent with previous research documenting sex differences in behavioral difficulties (Coie et al., 2002; Parker & Gamm, 2003). Children who exhibit externalizing behavior problems may be more emotionally reactive and have lower levels of social competence (Coie et al., 2002). A possible explanation for this finding is that boys' mutual dislike relationships are characterized by more externalizing-type (e.g., aggression) behaviors compared to girls. It is well documented that boys exhibit higher levels of externalizing behavior problems than do girls (Coie & Dodge, 1998). It seems plausible, therefore, that a contentious relationship such as mutual dislike serves to amplify the externalizing difficulties displayed by some boys. Importantly, the divergent effects of mutual dislike and peer rejection for boys and girls adds support to the premise that both forms of negative peer experiences affect children differently, at least with regard to externalizing behavior problems.

In summary, both peer rejection and mutual disliking were associated with increases in externalizing behavior problems. The effect sizes were modest, especially for mutual disliking. There is no doubt that externalizing behavior problems are multi-determined, and that problematic peer relationships, including mutual disliking, are only one of many possible sources of influence of externalizing difficulties.

Links between mutual dislike and concurrent and subsequent internalizing behavior problems.

Children who are shy, anxious, or withdrawn are at increased risk for later behavior problems and peer relationship difficulties (Rubin et al., 1990). For socially anxious and withdrawn children, the inability to interact with peers creates a situation of deprivation, wherein they become ostracized by peers, and unable to engage in the positive peer interactions that would allow them to develop social skills (Rubin et al., 1990). Children who exhibit internalizing difficulties may elicit negative attention from peers and become easy targets for teasing and victimization (Hodges et al., 1997). Hence, children with internalizing difficulties are often fixed in a negative socialization cycle, which contributes over time to feelings of loneliness, depression, and worthlessness (Boivin et al., 1994; Rubin et al., 1990). The child's degree of discomfort and distress about his or her lack of connection to peers is a sign that withdrawal is not a chosen social style, but may represent a significant social handicap (Asher, Parker, & Walker, 1996). Rubin et al. (1990) suggest one process through which internalizing behavior problems lead to peer difficulties. These authors postulate that when children

enter a peer setting with a pre-existing internalizing disposition (e.g., withdrawn, anxious), they are rebuffed by peers and this in turn leads to increased withdrawn and anxious behaviors. Self-recognition that he or she is rejected, or is failing in the social world, may elicit feelings of distress and despair in the child. Over time, negative self-perceptions of social competence lead to internalizing behavior problems (e.g., anxiety and depression) (Rubin et al., 1990). Consistent with the explanation offered by Rubin et al. (1990), peer relationship difficulties would serve as a marker for internalizing behavior problems. In contrast, Kupersmidt et al. (1990) suggest that the experience of being actively shunned by peers leads to a child's internalizing behaviors (e.g., anxiety and withdrawal). Thus, the experience of exclusion and rejection engenders feelings of personal inadequacy and depression that lead to internalizing behavior problems (Kupersmidt et al., 1990). According to Kupersmidt et al. (1990) then, difficulties in peer relationships have a direct link in the cause of children's internalizing difficulties.

Similar processes might explain the link between early internalizing behavior problems and mutual disliking. Children who behave anxious or withdrawn around peers become salient to the peer group, and they may be considered easy targets by aggressive peers for victimization (Abecassis et al., 2002; Schwartz et al., 2003). It is likely that children who exhibit internalizing difficulties may therefore be susceptible to mutual dislike. Moreover, the experience of mutual disliking for children with internalizing difficulties may heighten feelings of anxiety within the peer group and increase withdrawal and

avoidance in social settings (Pope, 2003; Schwartz, 2003). This issue has been examined in cross-sectional research of mutual dislike. For example, after controlling for peer rejection, Hembree and Vandell (2000) found that mutual disliking was associated with concurrent internalizing behavior problems for both boys and girls. Hembree and Vandell (2000) posit that the experience of mutual dislike may adversely affect children's self-perceptions regarding their social competence and self-worth, consistent with the argument espoused by Rubin et al. (1990). Consistent with the study by Hembree and Vandell (2000), Abecassis et al. (2002) reported that boys and girls involved in mutual dislike displayed more internalizing behavior problems compared to peers not involved in this type of dyad after controlling for peer acceptance. Abecassis et al. (2002) speculate that children involved in mutual disliking are more likely to experience internalizing difficulties as the result of feeling victimized by an adversary, consistent with the position held by Kupersmidt et al. (1990) that problematic peer relations lead to increased behavior problems. Additionally, Parker and Gamm (2003) reported that mutual dislike relationships were associated with internalizing difficulties, even after controlling for peer acceptance. Interestingly, the findings by Parker and Gamm (2003) varied as a function of child sex: involvement in mutual dislike dyads was associated with increases in internalizing behavior problems in girls. Parker and Gamm (2003) suggest that mutual dislike leads to children appraising their peer relationships as being poor in quality, which in turn leads to increased feelings of loneliness and social dissatisfaction, thereby resulting in internalizing difficulties. In contrast, Schwartz

et al. (2003) found that, similar to externalizing behavior problems, mutual dislike relationships no longer predicted concurrent internalizing behavior problems after controlling for peer rejection. Schwartz et al. (2003) argue, therefore, that mutual disliking is merely a marker for other social risks (e.g., vulnerability to community violence).

As mentioned previously, the only study of mutual disliking using a longitudinal design that controlled for prior behavior problems and peer rejection was conducted by Pope (2003). Although Pope (2003) found that mutual disliking was significantly and positively associated with internalizing behavior problems, this association became non-significant after controlling for initial level of internalizing difficulties and peer rejection. Again, the methodological issues raised in the discussion of externalizing behavior problems regarding the Pope (2003) study likely contributed to the findings that mutual dislike did not predict subsequent internalizing behavior problems after controlling for initial behavioral difficulties and peer rejection.

The findings of the present study showed that neither mutual dislike nor peer rejection was associated with concurrent internalizing difficulties. These findings stand in contrast to the peer rejection literature, which has demonstrated that children who are rejected by the peer group tend to report feeling lonely and dissatisfied with their social experiences (Parkhurst & Asher, 1992; Rubin et al., 1990). It may be that if children are assailed strictly by enemies (rather than indiscriminately by the larger peer group), they may be able to dismiss or discount its significance. Another interpretation of this finding is that internalizing

behavior problems reflect behavioral heterogeneity within the group of children involved in mutual dislike (Hembree & Vandell, 2000). That is, children who experience mutual dislike may differ in how they express internalizing difficulties. Additionally, and in light of the strong association between mutual dislike and externalizing difficulties, teachers in kindergarten and first grade may be less likely to view these children as withdrawn or anxious, especially as externalizing problems become more prominent, which the present findings would suggest.

The findings of the present study showed that mutual dislike and peer rejection made approximately equal, though modest, contributions to internalizing behavior problems over time, after controlling for initial levels of internalizing difficulties. The pattern of social risk factors that predicted internalizing difficulties did not vary as a function of child sex. That is, the interaction between mutual dislike and child sex was not significant in the moderator analyses for internalizing difficulties. This finding was somewhat surprising in that prior research (e.g., Abecassis et al., 2002; Pope, 2003) has found that especially among girls, peer rejection and mutual dislike are associated with greater feelings of social anxiety and more social avoidance. Clearly, more research is needed to sort out the types of peer experiences that may pose risks for boys and girls. Overall, the results of the present study provide support for the hypothesis that mutual dislike contributes uniquely to, and serves as a risk factor in the prediction of, internalizing behavior problems. As with externalizing problems, the portion of variance accounted for was small. Multiple factors, in

addition to peer problems, no doubt play important roles in the development of internalizing behavior problems.

Impact of Enemies' Group-level Liking

Contemporary perspectives on peer influence emphasize the need to consider the social and behavioral characteristics of those peers with whom a child has a dyadic relationship. Research on children's friendship has shown that whether friendships play a salutary or harmful role in children's social-emotional development depends on whether those friends are antisocial or prosocial (Boivin et al., 1994; Hartup, 1996). This work now needs to be extended to consider a broader array of peer characteristics (including how those peers are viewed by the group as a whole) for differing types of dyadic relationships.

The most novel element of the current study was the examination of whether the link between mutual disliking and children's behavior problems was conditional on (i.e., moderated by) the peer group's liking of children's enemies. It was expected that having mutual enemies who generally were liked by the peer group would serve as a risk amplifier. That is, the relation between mutual disliking and internalizing and externalizing problems was expected to be stronger when enemies were well-liked versus non well-liked. This expectation received empirical support for internalizing difficulties but not for externalizing difficulties. Thus, when adversaries are well-liked by the peer group, the number of mutual disliking is more strongly linked to internalizing difficulties for children. However, when enemies are not well-liked by the peer group, the number of

mutual dislike relationship does not show a predictive link to internalizing behavior problems.

From a conceptual standpoint, the finding that an enemies' level of liking is linked to increases in internalizing problems is consistent with the speculations mentioned earlier. That is, it may be self-validating when others share a child's negative view of his or her enemy, and the level of stress is mitigated as a result. Conversely, having an enemy who is well-liked by the peer group places a child in the minority of opinion, and this difference of judgment may serve as a source of stress for the child. Finally, having more enemies, if they are disliked by the peer group, was not associated with internalizing behavior problems for children in mutual dislike dyads.

The present study was unable to examine why a popular enemy would be detrimental to behavioral adjustment. It is interesting to speculate what behaviors or traits of popular children contribute to increased internalizing behavior problems for less well-liked enemies. It may be that popular children are perceived by peers as prosocial also display negative behaviors (e.g., being "stuck up" or domineering) toward enemies (LaFontana & Cillessen, 2002). These negative behaviors may be less salient to the larger peer group but nonetheless contribute to the internalizing difficulties experienced by less well-liked enemies.

The results of the present study suggest that the moderating role of enemies' level of group liking applies only to internalizing behavior problems. One explanation for this finding is that children with well-liked enemies may

experience less social support from peers. Thus, a child's mutual dislike experience with a well-liked enemy may spill over into the broader social group, resulting in the child being marginalized by the peer group, leading to increases in internalizing difficulties. Another possible explanation for this finding is that, if mutual disliking by itself is a stressor, a mutual dislike relationship with well-liked enemies exacerbates the stress associated with this dyadic experience. In conclusion, the results of the present study suggest that, whether children who experience mutual disliking exhibit internalizing behavior problems is dependent on their enemies' level of group liking. Such results provide evidence for the need to differentiate a child's enemies by the characteristics of those enemies, to have a clear understanding of the developmental significance of children's mutual dislike relationships.

The present study extends research of mutual disliking by taking into account the characteristics of the "enemies" with whom a child shares a mutual dislike relationship. This study was the first in the mutual dislike literature to consider the impact of enemies' level of group liking in relation to adjustment outcomes. These findings lend support to the position held by Hartup (1996) and others (Ladd, 1999), that knowing the characteristics of members within a dyad are necessary for understanding the impact of these relationships on social development. By including an examination of a mutual dislike dyad member's level of peer liking, the present study was able to gauge the importance of the larger social network and its impact on the dyadic experience. Several studies presented earlier (i.e., Criss et al., 2002; Hodges et al., 1997; Vitaro et al., 2005)

demonstrated that the socialization benefits of having friends (i.e., the extent to which friendships forecast good adjustment outcomes) hinges on whether those friends are prosocial or antisocial. Similarly, results of the present study were consistent with this premise, and showed that enemies' level of group liking moderates the association between mutual disliking and internalizing difficulties.

Conclusions, Limitations, and Suggestions for Future Research

The current study addressed research issues of mutual disliking (i.e., longitudinal design, characteristics of enemies) proposed to be especially important (Hartup, 2003). The results suggest that mutual dislike is independently related to behavioral adjustment, beyond peer rejection, and is differentially related to externalizing behavior problems for boys but not for girls. Additionally, findings from the present study support the notion that assessing the characteristics of members within the dyad is necessary for understanding the developmental significance of mutual dislike.

Overall, the results of the present study indicate that mutual dislike, peer rejection, and the characteristics of members within the mutual disliking dyad appear to be related dimensions of peer experience that uniquely contribute to children's externalizing and internalizing behavior problems. The present study adds to the existing literature on mutual dislike by shedding light on some of the behavioral correlates that are associated with mutual disliking. In addition to answering questions about the behavioral correlates associated with mutual disliking, the present study answers questions about the unique contribution of mutual dislike to subsequent behavioral outcomes, and how this dyadic

experience affects boys and girls differently. Moreover, the present study highlights the important role that an adversary's characteristics play in determining the extent to which mutual disliking impacts behavior difficulties. Finally, the present study examined the existence and effect of mutual disliking among children in kindergarten and first grade, and its association with behavioral adjustment in second grade. To date, none of the published research on mutual disliking has investigated this dyadic experience earlier than third grade.

Previous research (e.g., Abecassis & Hartup, 2002; Hembree & Vandell, 2000; Pope, 2003) postulated that mutual disliking is most likely to occur when children (especially rejected children) have behavioral problems that put them at risk for being disliked by peers. The results of the present study provide support for researchers' conceptualization of children's interpersonal relationships as contexts in which individual behaviors govern whether a child is liked or disliked by peers. These findings lend support to the conceptualization of behavior problems as risk factors for peer difficulties (Coie, 2004; Dodge et al., 2003; Hartup, 2003). Furthermore, that mutual dislike and peer rejection were independent predictors of subsequent behavioral difficulties indicates that both forms of problematic peer relations are likely to put children at risk for future behavioral maladjustment.

Limitations

Some limitations of the present study merit mention. First, the present study was unable to examine mixed-sex mutual dislike dyads. Prior research

(e.g., Abecassis et al., 2002; Hembree & Vandell, 1994; Parker & Gamm, 2003; Pope, 2003) has indicated that adjustment outcomes vary depending on whether the mutual dislike dyad is same-sex or mixed-sex. The debate over whether mutual dislike should be assessed only based on within-sex nominations and ratings versus mixed-sex nominations and ratings has continued to be a focus of researchers (Parker & Gamm, 2003; Pope, 2003; Rodkin et al., 2003), but the method used is ultimately determined by research goals of a specific study (Asher & Hymel, 1981).

A second limitation, in considering the implications of the findings, is the possibility that the present study did not measure children's mutual disliking. The present study followed the methodological approach advanced by previous studies (i.e., low peer ratings) to operationalize mutual dislike. It may be more valid for researchers to explicitly word questions regarding mutual dislike relationships, whether employing peer ratings (e.g., "rate how much you consider each classmate to be an enemy") or peer nominations (e.g., "name three peers that you consider to be an enemy"), rather than presuming that low reciprocated peer ratings or reciprocated peer nominations are indicative of mutual dislike relationship. Finally, the combination of ratings and nominations for measuring mutual disliking and peer rejection, respectively, had the benefit of ensuring a stronger measure of mutual disliking in the present study.

Third, the current study was unable to measure relational aggression in girls' mutual dislike relationships. Previous research (e.g., Crick & Grotpeter, 1995) has documented that relational aggression (such as rumor spreading) is

more characteristic of girls' problematic peer relations compared to boys. The examination of relational aggression and girls in the current study may have resulted in patterns similar to those found for externalizing and boys. Future studies may need to include more differentiated outcomes to yield sex differences.

Future Directions

The overall pattern of results suggests that mutual dislike and peer rejection are distinct relational experiences that hold unique implications for behavioral adjustment. With regard to mutual disliking, the findings demonstrated that children who exhibit behavior problems early on are more likely to experience this problematic dyadic occurrence and mutual dislike is associated with an escalating cycle of behavior problems, especially if one's enemies' are well-liked by the larger peer group. However, given the inconsistent findings regarding gender differences that may exist in the relations between mutual disliking and behavior problems, it is important to investigate possible gender effects further. Some studies have found no gender effects in the relationships among mutual dislike and behavior problems (e.g., Abecassis et al., 2002; Hembree & Vandell, 2000), but others have (e.g., Parker & Gamm, 2003; Pope, 2003). It is interesting that, when examining the relation between mutual dislike and behavior outcomes, the present study found a moderating effect for sex with externalizing difficulties. Perhaps some of the discrepancy in the gender effects is related to the age of the participants. Clearly, the role of gender requires further study.

In summary, the present study sought to examine the role of mutual dislike relationships in children's development of behavior problems. The findings show that mutual dislike, operationalized as reciprocated low-liking, is predictive of subsequent behavior problems, independently of prior problems and co-occurring peer rejection. Links between mutual disliking and externalizing problems were stronger for boys than for girls, and links between mutual disliking and subsequent internalizing problems were stronger when enemies were well-liked by the peer group than when enemies were not well-liked by the peer group. Overall, these findings suggest that mutual disliking may reflect an important aspect of children's peer experience.

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Appendix A

Data Preparation

Sociometric data were collected for this study from the participating children and their classmates in years one through two of the project. For the reciprocated mutual dislike data, the “raw” sociometric data were used. Each child assigned a number to each other child in the classroom to indicate how much they “liked” each other child in the class. For the most part, the rating scale was on a 5-point scale, with “1” indicating dislike and “5” indicate like a lot. During the second year of the study (1988), most of the classrooms used a 3-point scale with “1” indicating dislike and “3” indicating like (59 classrooms in Year 1—all in Cohort 2 and 48 classrooms in Year 2—primarily in Cohort 1). For the classrooms that used the 1-3 scale, the data were recoded so that “3s” were converted to “5s” for those classrooms. These variables indicate the rating score that each child *gave* the other children in the classroom.

Reciprocated Ratings

Reciprocated relationships were identified by using the TRANSPOSE command in SPSS. The TRANSPOSE command was used to “flip” the data reported by each child in the classroom so that the ratings (or nominations) *received* could be identified for each child. In order to perform the data transposition, the data had to be separated by classrooms. In order to do this,

each classroom was assigned a unique identification number. After creating the class identification variable (“classid”), syntax was created to make data sets for *each classroom* in order to transpose the sociometric variables. The “recode” command was then used to fill in the “missing” classid* numbers resulting from the merging the classroom data into the “temp” file to create the square grid—the only purpose of this command was to be able to keep each “grid” together by sorting by classid—the actual rows of data corresponding to the missing classid* numbers was blank because these classroom child id numbers (“s*id”) were the children who were assigned numbers but did not participate in the sociometric assessment (although they could receive ratings and nominations from the other children in the classroom).

After merging the data sets for each classroom into a single data file, this data file was used to identify reciprocated ratings relationships. The total number of reciprocated “1s” could then be summed to identify the total number of each type of relationships identified for each child. The resulting grid of matched dyads were also used identify the characteristics of the members of the dyads by matching with other aspects of the sociometric reports such as “average level of group liking” in the relationship.

Peer Nominations

The sociometrics nominations data are set up so that each child in the classroom nominates three individuals (identified by their id number) in the classroom as either “liked most” or “liked least.” In order to identify reciprocated relationships, the data was first put into a grid format similar to the ratings data.

This syntax created a series of 30 variables with either a “1,” indicating that the child was one of the children nominated or a “0” indicating the child was not nominated. The syntax used to create the reciprocated ratings data was modified to have the variable names indicate whether or not a child was nominated, thus replacing the sociometric ratings with nominations. The transposed data sets for each classroom were merged similar to the ratings data to identify children who were nominated as liked least.

Average Level of Group Liking

To examine the relative liking or disliking levels of the members of the mutual dislike dyads identified, additional sociometric data were created using similar processes of calculating and transposing data. For each child, the total numbers of “1” ratings as well as “liked most” and “liked least” nominations were calculated by summing the total numbers of ratings or nominations or nominations received. These totals were then standardized within classroom to give an indication of the relative liking and disliking for each child in relation to the other children in the child’s classroom. These z-scores for each of the sociometric variables were expanded across a 30 variable grid with each score in the grid for a particular individual being the child’s z-score for the particular variable (the same value across all 30 variables). This grid was then transposed using the process previously outlined for creating the reciprocated relationships data sets to give a new grid with each child’s standardized score in each classroom listed in a vertical column. The grid of the children’s reciprocated relationships (matched disliking ratings) was then compared with the grid of the

standardized scores listed in columns to identify the level of liking and disliking score for each of the “other” children in a reciprocated dislike relationship. A level of liking of the “other” in the mutual dislike dyad(s) was then computed across the number of mutual dislike dyads to yield an index of the average level of liking of a specific child’s “enemies.”