Compensatory Patterns of Support Among Children's Peer Relationships: A Test Using School Friends, Nonschool Friends, and Siblings

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Abstract

We examined the extent to which isolated and aggressive 6th graders compensate for unsatisfying school friendships by deriving support from siblings and nonschool friends and whether this support protects such children from poor socioemotional outcomes. Results were as follows: (a) When compared with average and aggressive children, isolated children perceived their school friendships as least supportive and their favorite sibling relationships as most supportive; (b) isolated, aggressive, and average children did not differ in their perceptions of support from nonschool friends; and (c) high support from a favorite sibling was associated with better adjustment among isolated children on select outcomes. Despite the somewhat ameliorating role of siblings for isolated children, isolated children with high sibling support remained less well adjusted than did average children.

Recent research suggests that our understanding of children's social support can be enriched by simultaneously analyzing the various functions provided by different types of relationships within children's social networks (Berndt, 1989; Buhrmester & Furman, 1986, 1987; Cauce, Reid, Landesman, & Gonzales, 1990; Furman & Buhrmester, 1985a; Hirsch, 1985). Much of this work draws on Weiss's (1974, 1986) typology of adult relational bonds in which he outlined the various functions of different types or classes of social relationships. Weiss hypothesized that different types of social relationships (e.g., kin, friendships, marital relationships) provide different kinds of social provisions or social support. In examining these specialized types of support within children's social relationships, investigators have found that a particular support characteristic can be obtained from more than one relationship type (Buhrmester & Furman, 1986; Furman & Buhrmester, 1985a). Given this, Furman and Buhrmester (1985a, p. 1022) have argued that it would be adaptive for an individual who lacks a specific relationship type (e.g., a friend or sibling) to be able to compensate for the missing support by turning to a functionally similar type of relationship. Indeed, it is interesting to consider (a) whether a relationship that is low

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in support could be compensated for by the provisions of a functionally analogous relationship, and (b) to the extent that it could, whether the individual would forego experiences of emotional distress associated with the absent support.

This brings to mind two conceptually distinct meanings of the term *compensation.* The first meaning of compensation refers to a more or less planned investment in a particular kind of social relationship as a result of knowing that one has failed in other kinds of relationships. In this way, compensation implies active seeking of social provisions in an effort to substitute or make up for a particular relationship deficiency. This type of compensation would be evident if those who perceive low support in one type of relationship seek support in another, functionally analogous relationship. A second meaning of compensation refers not to the process of seeking substitute social provisions but, rather, to the impact of such substitute provisions on pyschological health. That is, apart from knowing whether children who lack fulfilling friendships at school obtain support from others, it is important to know whether this substitute social support affords psychological benefits to the extent that it can protect such children from the unfavorable outcomes associated with unsupportive friendships (Berndt, 1989; Fleming & Baum, 1986).

In analyzing the compensatory supportive patterns among children's peer relationships, it was necessary (a) to identify individuals who may be vulnerable to low support from school friends and (b) to demonstrate that such individuals indeed lack crucial provisions provided by school friends. As a starting point, we selected two clearly identifiable populations of children who have specific peer relational difficulties and who have been the focus of numerous research reports, namely, peer-isolated children and peer-aggressive children (e.g., French, 1988; Hymel, Rubin, Rowden, & LeMare, 1990; Parker & Asher, 1987). Although the nature of their peer difficulties differs considerably, both isolated and aggressive children are poorly accepted by peers and are often excluded from normal patterns of peer interaction (Asher & Dodge, 1986; Gottman, 1977). Few published studies have examined the qualitative features of their friendships, but it seems plausible that continued peer rejection and exclusion, combined with their idiosyncratic social behavior, would place aggressive and isolated children at risk for unsupportive friendships.

In studying the patterns of support among children's peer relationships, it was also necessary to identify ties that are functionally analogous to school friendships or bonds that could potentially compensate for unfulfilling school friendships. Because sibling relationships often resemble friendships in the functions that they perform (i.e., engendering a sense of closeness, providing companionship, and encouraging a sharing of mutual experiences; Furman & Buhrmester, 1985a, 1985b), children who lack friends at school may look to siblings to perform the functions typically associated with friendship. The familiarity, intimacy, and enduring nature of the sibling bond may allow some latitude in the reactions to socially unskilled behavior. For example, sibling relationships may offer refuge to the peer-aggressive child whose angry outbursts are unacceptable to school peers but are tolerated by siblings (Bryant, 1982; Furman & Buhrmester, 1985b). In addition, because sibling relationships are obligatory (in contrast to the voluntary nature of friendships), siblings are forced by circumstance to have a continuing relationship that minimally guarantees further interaction, thereby paving the way for the exchange of social provisions.

Moreover, the asymmetrical nature of sibling relationships, created by siblings' age differences, may also work to the advantage of isolated and aggressive children. An isolated and withdrawn child should find it easier to take an assertive role with a younger sibling than with an age-mate peer, or, in the case where the withdrawn child's sibling is older, the older sibling may take on an active leadership role that complements the withdrawn child's passive tendencies.

In addition to siblings, neighborhood age mates represent a pool of potential compensatory social ties for children who have unfulfilling school friendships. Peer-isolated and peer-aggressive children may be particularly likely to develop nonschool friendships because the opportunities for social contact are greater in the neighborhood setting (Epstein, 1989), and the types and ages of contacts are more diverse (Ellis, Rogoff, & Cromer, 1981; Ladd, 1983). Moreover, neighborhood relationships offer an opportunity for aggressive and isolated individuals to initiate and maintain rewarding friendships in the absence of their negative reputation at school (Coie & Kupersmidt, 1983). Although nonschool relationships certainly represent an important component of children's social networks, little research has specifically focused on children's neighborhood friendships (notable exceptions include Bryant, 1985; Epstein, 1989; Ladd, 1983), and even less attention has been paid to the potential associations among qualities of children's peer behavior, school friendships, and nonschool friendships.

The intent of this study was to test whether evidence of the two types of compensation exist using the case of children's peer relationships. We did this by examining the compensatory patterns of support among three types of children's peer relationships: school friendships, nonschool friendships, and sibling relationships. First, we examined whether children with unsupportive school friendships turn to nonschool friends and siblings to compensate for the provisions that they lack from school friends. Second, we examined the potential protective effects of the substitute support on such children's adjustment.

In this study, we tested the following hypotheses: (a) Because of their idiosyncratic social behaviors, peer-isolated and aggressive children will be more likely than children with average peer relations to have less supportive school friendships; (b) such children will compensate for this low support from school friends by deriving more support from a peer alternative, such as a favorite sibling or a neighborhood–nonschool friend, relative to children with average peer relations; (c) children who have unsupportive school friendships will experience greater socioemotional difficulties than will children with supportive school friendships; and (d) to the extent that siblings and nonschool friends provide the support lacking in their school friendships, isolated and aggressive children will forego experiences of emotional distress.

Method

Subjects

Subjects for this study were drawn from a sample of 450 sixth graders (205 boys and 245 girls; $M = 12.02$ years and $SD = 0.51$ years) attending 12 public schools in four districts in southern California. All schools included only first through sixth grades and were located in

suburban middle-class neighborhoods. Fifty-one percent of subjects were Caucasian, 17% were Hispanic, 12% were Black, 11% were Filipino, and 9% were of other racial origin. In addition, 37 teachers (25 women and 12 men) and 474 of parents of subjects (281 mothers and 193 fathers) participated in the study.

Subjects were recruited by sending a letter to the children's parents requesting their participation and the participation of their child in a survey of students' social relationships and social support. Of the 692 parents contacted, 65% agreed to allow their child to participate. Agreement to participate ranged from 36% to 98% across all schools. The low response rate of 36% at one school was due to many students (9%) not returning their consent form until after the testing date. Of parents who were currently living with their child, 71% of the mothers and 56% of the fathers completed and returned the surveys. The participation rate for teachers was 100%.

Measures

Peer groups—Peer nominations on the Revised Class Play (RCP; Masten, Morison, & Pellegrini, 1985) were used to identify peer-isolated and peer-aggressive children. A group of average children was also included in this study to compare the social support levels and socioemotional outcomes of children who do experience difficulties with peers as opposed to those who do not. An average-status group is most often used as a baseline comparison group in research on aggressive and isolated children (e.g., French, 1988; Waas, 1988). The RCP measures three dimensions of children's social behavior: social sensitivity–isolation, aggression–disruption, and sociability–leadership. Subjects completed this questionnaire by nominating classmates for 27 different roles: 15 sociability–leadership roles, 7 aggressive–disruptive roles, and 5 sensitive–isolated roles. The role of "very sad" was omitted from the sensitive–isolated dimension because of its similarity to items on the depression measure (one of the socioemotional outcomes assessed). The administration and scoring of the RCP were identical to that described by Masten et al. (1985). Subjects first nominated male classmates who could best play each role; then students recast all parts, using their female classmates. Scores were standardized within sex and within school. Exemplar roles corresponding to the sensitive–isolated, aggressive–disruptive, and sociability–leadership dimensions include "often left out," "gets into a lot of fights," and "makes new friends easily," respectively. Masten et al. (1985) reported alpha coefficients of 0.95, 0.93, and 0.85 for the sociability–leadership, aggressive–disruptive, and sensitive–isolated factors, respectively. Using the present sample, the alphas were 0.89, 0.90, and 0.85 for these dimensions.

The peer-isolated and peer-aggressive groups were formed using the same-sex medians of the three RCP dimensions. Subjects classified as *isolated* received sensitive–isolated nominations above the same-sex median of this dimension and below the same-sex medians on the aggressive–disruptive and sociability–leadership dimensions ($n = 43$ girls and 30 boys). Subjects classified as *aggressive* received aggressive–disruptive nominations above the same-sex median on this dimension and below the same-sex medians on the sensitive–isolated and sociability–leadership dimensions ($n = 42$ girls and 35 boys). Subjects classified as *average* were those who received peer nominations within±1 standard deviation of the

mean on all three dimensions and who were not already classified as *isolated* or *aggressive* (*n* = 53 girls and 42 boys).[1] The mean scores (standardized) for the sensitive–isolated, aggressive–disruptive, and sociability–leadership dimensions for the three groups were the following: (a) for the isolate group, 2.62, −1.44, and −2.53, respectively; (b) for the aggressive group, −0.46, 2.25, and −1.31, respectively; and (c) for the average group, −1.25, −1.29, and 1.34, respectively. Using this method, comparable percentages of girls (57%) and boys (52%) were classified into a peer group. Data from subjects who did not meet the group classification criteria were omitted from all analyses.

Social support from school friends, nonschool friends, and siblings—The Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985a), which was based on Weiss's (1974, 1976) typology of social provisions, was used to assess the following seven kinds of support within children's relationships with a school friend, a nonschool friend, and a favorite sibling: (a) companionship, (b) affection, (c) reliable alliance, (d) instrumental help, (e) enhancement of worth, (f) intimate self-disclosure, and (g) satisfaction with the relationship. Four subscales from the original measure that do not assess support were omitted from the inventory (relative power, conflict, nurturance of other, and importance of the relationship). No changes were made to theremainingseven subscales in terms of wording or number of items. Thus, as used in this study, the NRI consisted of 21 items—three items for each of the seven scales. If subjects knew more than one person in the school friend or nonschool friend categories, they were instructed to rate therelationshipthat was personally most important. The average age of subjects' nonschool friends was 12.5 years (*SD* = 3.99), with 84% of nonschool friends between the ages of 10 and 14. In completing the NRI, subjects were asked to identify their favorite sibling or the sibling with whom they felt closest. Only scores for subjects' favorite sibling were used in this study. For children who had only one sibling (*n* = 135), that sibling's NRI scores were used in the analyses involving a favorite sibling. Subjects who did not have a nonschool friend (*n* = 13) or a sibling (*n* = 19) or who had incomplete data on a school friend *n* = 13) were excluded from all analyses. Individuals from a particular peer group were not overrepresented among those excluded. The remaining number of subjects for the analyses of this study was 200: 59 peer-isolated, 54 peer-aggressive, and 87 peer-average children.

Response options for the NRI range from 1 indicating *little or none* to 5 indicating *the most.* An exemplar item (indexing intimate self-disclosure) reads, "How much do you share your secrets and private feelings with this person?" Thus, the score range for each support dimension is 3–15, with higher scores reflecting more favorable perceptions of support. The Cronbach alphas for the seven support dimensions averaged 0.72, 0.78, and 0.74 for school friend, favorite sibling, and nonschool friend, respectively. Furman and Buhrmester (1985a) reported a mean Cronbach alpha of 0.80 for all scale scores.

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[1]Although we assign profile labels of *isolated, aggressive*, and *average-peer status* , we advise readers to keep in mind that these children were selected for other social dimensions as well. For example, the isolated group was selected for high social sensitivity and isolation and low aggression and sociability. Similarly, the aggressive group was selected for high aggression and disruption and low social sensitivity–isolation and sociability. It should also be noted that by selecting for these dimensions, the aggressive group may have not included the extremely aggressive children because these children would tend to be rejected by peers and, thus, high on social isolation. Thus, some of the most maladaptive children (i.e., those high on both aggression and isolation, 27 children in this sample) may not have been classified.

Socioemotional Outcomes—The UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978) was used to assess children's feelings of social isolation and dissatisfaction with their social network.[2] A representative item is "I feel as if nobody really understands me." One of the 20 items was not well understood by subjects ("My social relationships are superficial") and was discarded from the scale. Response options on the UCLA Loneliness Scale range from 1 (*I never feel this way*) to 4 (*I often feel this way*). Thus, the range of possible scores is 19–76, with higher scores reflecting greater feelings of loneliness. The Cronbach alpha using the present sample was 0.80.

The Center for Epidemiological Studies Depression Scale for Children (CES-DC; Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986) was used to assess subjects' depression. An exemplar item is "I feel down and unhappy." Response options for the 15 items were identical to those of the UCLA Loneliness Scale. The possible score range is 15–60, with higher scores indicating greater depression. The Cronbach alpha using the present sample was 0.77.

The Self-Perception Profile (SPP; Harter, 1983) was used to assess subjects' feelings of general self-worth. The response format of the SPP involves structured alternatives wherein children first choose a statement that is most true for them and then must decide whether the statement is "sort of true" or "really true" for them. Six items comprise the self-worth scale, and each item is scored from 1 (*low perceived self-worth*) to 4 (*high self-worth*). The possible score range is 6–24. A item reads "Some kids are happy with themselves as a person, but, other kids are often not happy with themselves." Using this sample, the internal consistency of the self-worth subscale (Cronbach alpha) was 0.72. Harter has reported the internal reliability of the self-worth subscale as 0.83.

Self-ratings on the RCP (Masten et al, 1985) were used to assess subjects' perceptions of their social–peer relations with regard to sociability–leadership, social sensitivity–isolation, and aggression–disruption. Items on the RCP were presented to subjects, and they were asked to rate how well each item described them using response options ranging from 1 (*doesn't describe me well at all*) to 4 (*describes very well*). Subjects' ratings were then summed within each class play dimension to provide an index of their social self-perceptions within each domain. On the basis of the number of items per domain, the range of possible scores is 15–60 for perceived sociability–leadership, 7–28 for perceived aggression–disruption, and 5–20 for perceived social sensitivity–isolation. The role of "very sad" was omitted from the self-rated RCP because of its similarity to items on the depression measure. Cronbach alphas of the class play self-ratings were 0.76, 0.87, and 0.82 for the above-noted dimensions, respectively. In addition, RCP self-ratings correlated significantly with RCP peer nominations: 0.34, 0.18, and 0.39 (all $p < .001$) for the isolated, aggressive, and sociability subscales, respectively, providing evidence of their validity.[3]

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[2]It should be noted that, although the UCLA Loneliness Scale has a been used primarily with college and high school students, it is very similar in content to the loneliness scale developed by Asher and his colleagues for third- through sixth-grade children (Asher, Hymel, & Renshaw, 1984). For example, 8 of the 16 items on Asher's scale correspond almost verbatim to items on the UCLA Loneliness Scale. Asher's scale was not selected for use in the present study, however, because of its emphasis on friendlessness (e.g., *I don't have any friends*) as opposed to items on the UCLA Loneliness Scale that specifically describe the experience of loneliness (e.g., *I am unhappy being so withdrawn*).

The Behavior Problem Checklist (BPC; Conners, 1970), which was completed independently by subjects' mothers, fathers, and teachers, asks respondents to indicate how often specific problem behaviors were observed, if at all, within the last month. The BPC assesses various types of behavioral problems (e.g., learning and conduct problems, psychosomatic complaints), only two of which were rated by parents and teachers: anxiety and immaturity–passivity. A typical item on the anxiety subscale (a total of five items) reads "is fearful or anxious," and a typical item indexing immaturity–passivity (also comprised of five items) reads "lets self be pushed around by others." Response options range from 1 (*not* [*observed*] *at all*) to 4 ([*observed*] *very much*). The range of possible scores is 5–20 for both the anxiety and immaturity–passivity dimensions, with higher scores indicating greater anxiety and immaturity–passivity. The internal reliabilities (Cronbach alphas) were 0.71, 0.68, and 0.79 for mother, father, and teacher ratings of anxiety, respectively; and 0.76, 0.68, and 0.82 for mother, father, and teacher ratings of children's immaturity–passivity, respectively. In addition, interrater agreement (among mothers, fathers, and teachers) averaged 0.32 ($p < .001$) for both subscales. This is comparable to the interrater reliability reported by Conners.

Procedure

Testing was conducted on 2 consecutive days during the spring of the subjects' sixth-grade school year. Subjects completed the NRI the first day of testing and the RCP and the adjustment questionnaires the second day of testing. Both sessions lasted approximately 45 min. Questionnaires were administered in large groups ranging in size from 20 to 50 students. Subjects completed their questionnaires either in their own classroom or in another room (e.g., the library or a conference room) within their school. The teachers completed their forms during the afternoon of the first day of testing. The parents responded to their questionnaires at home; their children delivered the forms to their parents and returned the questionnaires to their school's main office within 1 week.

Results

Do Isolated and Aggressive Children Perceive Less Support From Their School Friendships Than Average-Status Children?

To determine whether isolated and aggressive children perceive less support from their school friendships than do children with average peer relations, a Peer Group × Gender (3 × 2) multivariate analysis of variance (MANOVA) was computed on children's ratings of the support obtained from a school friend. Results showed a significant main effect of peer group, $F(14, 372) = 2.00$, $p < .05$, and of gender, $F(7, 214) = 4.49$, $p < .001$, but no Gender × Peer Group interaction. Tests of the simple main effect for gender revealed that girls perceived their school friendships as more supportive than did boys on five of the seven support dimensions: instrumental help, intimacy, affection, reliable alliance, and satisfaction. Follow-up analyses to clarify the peer group main effect were conducted using Newman-Keuls tests and the $p < .05$ level of significance. The means, standard deviations,

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[3]Although these reliabilities indicate good agreement between the two sources, the correlation coefficients may not be as high as one might expect. One must keep in mind, however, that children are probably less likely to ascribe negative attributions to themselves than are peers. For example, the aggressive items, which may be the most difficult to accept in oneself, had the lowest agreement.

and univariate F values associated with children's school friend support ratings for each peer group are presented in Table 1. These analyses revealed that isolated children perceived their school friendships as less supportive than did aggressive or average-status children. Peer-isolated children rated the companionship, enhancement of worth, instrumental help, and intimacy experienced with a school friend lower than did the other two groups of children. Isolated children also perceived less affection and satisfaction in their school friendships than did aggressive children and less reliable alliance in their school friendships than did average children. When an analysis of variance (ANOVA) was computed on a total support score (sum of the NRI across all seven support dimensions), isolated children perceived less total support in their school friendships than did aggressive or average-status children, $F(2, 192) = 5.61$, $p < .01$.

Do Isolated Children Perceive More Support From Their Favorite Sibling and Nonschool Friend Relationships Than Aggressive or Average-Status Children?

To test the hypothesis that isolated children will compensate for the low support from school friends by deriving more support from a favorite sibling or a nonschool friend than will aggressive and average-status children, two Peer Group × Gender (3 × 2) MANOVAs were computed: one on the favorite sibling support scores and one on the nonschool friend support scores. Results of the MANOVA computed on the favorite sibling support scores indicated a significant main effect for peer group, $F(14, 380) = 1.75$, $p < .05$, and gender $F(7, 357) = 3.57$, $p < .01$, but no Gender × Peer Group interaction. Tests of the simple main effect for gender showed that girls perceived their favorite siblings as more intimate and affectionate than did boys. The means, standard deviations, and univariate F values associated with children's scores of favorite sibling support for each peer group are presented in Table 2. Results of Newman-Keuls tests (using the $p < .05$ level of significance) of the peer group effect indicated that isolated children perceived their favorite sibling relationships as more supportive than did children in the aggressive or average peer groups on four of the seven support dimensions: companionship, enhancement of worth, instrumental help, and intimacy. Moreover, isolated children perceived more affection within their favorite sibling relationships than did children in the average peer group. Satisfaction with the sibling relationship and perceptions of the sibling as a source of reliable alliance did not differ across the three peer groups. When an ANOVA was computed on the total support score (sum of the favorite sibling NRI scores across all seven support dimensions), peer-isolated children perceived significantly more support in their favorite sibling relationships than did children from the aggressive or average peer groups, $F(2, 196) = 4.45$, $p < .05$.

The results of the Peer Group × Gender (3 × 2) MANOVA conducted on children's perceptions of support provided by their nonschool friends showed a significant gender effect, $F(7, 184) = 4.36$, $p < .001$, but neither a peer group effect nor a Peer Group × Gender interaction. Tests of the gender effect indicated that girls perceived significantly more intimacy, affection, and instrumental help in their nonschool friendships than did boys.

Do Isolated Children Experience Greater Socioemotional Difficulties Than Aggressive and Average-Status Children?

To test whether isolated children exhibit less favorable socioemotional outcomes than children from the other peer groups, a Peer Group × Gender (3 × 2) MANOVA was computed on the 12 measures of children's socioemotional adjustment. Results indicated a main effect of peer group, $F(24, 138) = 1.97$, $p < .01$, but neither an effect of gender nor a Gender × Peer Group interaction. The adjustment means and standard deviations for children in each peer group and the corresponding univariate F values are presented in Table 3. A Newman-Keuls analysis ($p < .05$) of the subgroup means revealed that, for six of the eight outcomes associated with a significant univariate F value, isolated children exhibited the least favorable adjustment. That is, isolated children were more lonely, had lower self-perceptions of sociability–leadership, and were more anxious (as rated by teachers) than were both aggressive and average children. In addition, isolated children, when compared with children with average peer relations, were more depressed and were rated as more immature by mothers, fathers, and teachers. Aggressive children had the next least favorable adjustment, with higher self-perceptions of aggression–disruption than isolated children, higher anxiety ratings by teachers, and higher immaturity ratings by fathers and teachers than did average children.

Because several researchers have suggested that sociability may be the element of peer relations that is most consequential for children's functioning in other domains (Masten et al., 1985; Parker & Asher, 1987; Rubin, Hymel, LeMare, & Rowden, 1989), it is interesting to consider whether the isolated group appears more maladjusted because they are less sociable. In fact, post hoc analyses revealed this to be the case—the socially isolated children in this study had significantly lower peer-rated sociability scores, $M = -2.53$ standardized, $SD = 1.97$, than the aggressive group, $M = -1.31$ standardized, $SD = 1.77$; $t(148) = 3.99$, $p < .001$. To determine whether some of the differences in the adjustment data were due to low sociability rather than differences in the peer groups per se, a MANCOVA was performed on the adjustment scores with the three peer groups as the independent variable and the peer-rated sociability score as the covariate. The MANCOVA was significant, $F(24, 138) = 1.75$, $p < .05$, indicating that the peer groups differ in socioemotional outcomes independent of the effects of sociability.

Does Sibling Support Protect Isolated and Aggressive Children From Poor Socioemotional Outcomes?

To examine whether the support provided by the favorite siblings of isolated and aggressive children can protect such children from poor socioemotional outcomes, a (3 × 2) MANCOVA was computed using the three peer groups and high and low sibling support groups as the classification variables, gender as the covariate, and the 12 adjustment scores as the dependent variables. High and low sibling support groups were formed using a median split of children's total favorite sibling support scores within sex and within peer group. The MANCOVA thus tests whether high support from a favorite sibling is associated with better socioemotional outcomes for all children despite their peer group classification (a main effect for support) or whether high support differentially protects children with

problematic peer status, as would be evident by a significant Peer Group × Support interaction effect.

The results revealed a main effect of a favorite sibling's support for only two outcomes: father-rated immaturity and teacher-rated immaturity. High support from a favorite sibling was associated with lower father ratings of immaturity, $F(1, 74) = 4.54$, $p < .05$, and lower teacher ratings of immaturity, $F(1, 91) = 5.90$, $p < .05$, for children of all peer groups. A significant Peer Group × Sibling Support interaction emerged for four outcomes: father-rated anxiety, $F(2, 95) = 4.47$, $p < .05$, teacher-rated anxiety, $F(2, 191) = 6.89$, $p < .001$, mother-rated immaturity–passivity, $F(2, 83) = 4.47$, $p < .05$, and teacher-rated immaturity–passivity, $F(2, 191) = 5.95$, $p < .01$. The means and standard deviations of children's scores for the four significant outcomes by peer group and sibling support are shown in Table 4. To clarify this interaction, two sets of contrasts were computed. First, comparisons were made between children who had high versus low sibling support within each peer group (i.e., contrasts were performed vertically). These comparisons indicated that, relative to isolated children who had low support from a favorite sibling, isolated children who had high support from a favorite sibling were less anxious as rated by both fathers, $t(44) = 1.98$, $p < .05$, and teachers, $t(57) = 20.16$, $p < .001$, and were less immature as rated by teachers, $t(57) = 13.58$, $p < .001$. Thus, it appears that high support from a favorite sibling is associated with fewer adjustment problems for isolated children. Analysis of the adjustment means for aggressive children indicates, however, that high support from a favorite sibling is associated with slightly more adjustment problems for aggressive children, with high sibling support associated with greater anxiety as rated by fathers, $t(45) = 1.99$, $p < .05$. Average children who had high support from a favorite sibling did not differ from average children who had low support from a favorite sibling on any of the outcome variables shown in Table 4.

The second set of contrasts were conducted comparing the adjustment outcomes listed in Table 4 between isolated and average children with high favorite sibling support and between aggressive and average children with high favorite sibling support (i.e., contrasts were performed horizontally within the upper half of Table 4). These contrasts examine whether support from a favorite sibling can buoy isolated and aggressive children up to the level of average functioning children. For example, apart from knowing whether support from a favorite sibling favorably affects the functioning of isolated children, it is important to know whether such beneficial effects have sufficient magnitude to make the socioemotional functioning of these children comparable to that of children with average peer relations. If the adjustment outcomes of isolated or aggressive children who have high sibling support are equivalent to those of average children who have high sibling support, then one could conclude that sibling support protects children with problematic peer ties from poor socioemotional outcomes. This would provide evidence for the second type of compensation discussed earlier in this article. Results of these analyses (using Newman-Keuls tests and $p < .05$ level of significance) indicated that among children who have high sibling support, average children continued to have fewer adjustment problems than did isolated or aggressive children. Specifically, children in the high-support, average group

were rated by teachers as less immature than were children in the high-support, isolated group and children in the high-support, aggressive group.

Does Nonschool Friend Support Protect Isolated and Aggressive Children From Poor Socioemotional Outcomes?

A 3×2 MANCOVA of peer group and nonschool friend support (high vs. low), controlling for the sex of the child, was computed on the 12 adjustment scores. High and low nonschool friend support groups were formfed using a median split of children's total nonschool friend support scores within sex and within peer group. A main effect of nonschool friend support emerged for only two outcomes: loneliness and perceived sociability. For children in all peer groups, high nonschool friend support was associated with greater loneliness, $F(1, 215) = 8.56$, $p < .01$, and greater perceptions of sociability, $F(1, 217) = 8.37$, $p < .01$. A significant Peer Group $\times$ Nonschool Friend Support interaction emerged only for self-ratings of aggression–disruption. Analysis of subgroup means indicated that aggressive children with high nonschool friend support had significantly higher self-perceptions of aggression–disruption, $M = 17.43$, $SD = 5.54$, than did aggressive children with low nonschool friend support, $M = 13.86$, $SD = 4.97$, $t(52) = 2.74$, $p < .01$. Thus, nonschool friend support did little to protect isolated or aggressive children from unfavorable socioemotional outcomes and, in fact, was associated with greater self-rated aggression–disruption among aggressive children.

Discussion

The results of this study suggest four general conclusions about children's patterns of support with school friends, nonschool friends, and siblings. First, children who were rated by their school peers as isolated (i.e., children who were high on sensitivity–isolation and low on aggression–disruption and sociability–leadership), when compared with other children, felt that their relationships with specific school friends were relatively low in support (i.e., companionship, enhancement of worth, instrumental help, and intimacy). This was not the case for peer-aggressive children (i.e., children high on aggression–disruption and low on sensitivity–isolation and sociablity–leadership): Aggressive children's evaluations of their relationships with specific school friends were generally more favorable than those of isolated children and were equivalent to those of average children. When considering their nonschool friendships, children of different peer groups perceived equivalent levels of support. Thus, if given the opportunity to rid themselves of either a loner or aggressive peer reputation they have at school, sensitive–isolated and aggressive children appear to be able to maintain satisfactory friendships with nonschool peers. Very little data have been gathered on the generalizability of social isolation and aggression across contexts and the impact that it has on children's friendships in different settings. The results of this study are encouraging because they suggest that isolated and aggressive children receive support comparable to other children in nonschool friend relationships.

A second finding of this study was that although socially isolated children experienced relatively low levels of support within their school friendships, they derived relatively high levels of support within their favorite sibling relationships. Considered together, these

findings suggest that isolated children may depend on siblings more than friends or feel more comfortable with siblings than with friends. Siblings would be a likely alternative for unfulfilling friendships given that childhood sibling ties provide comparable kinds of social benefits. This interpretation is consistent with Weiss's (1974, 1986) notion of social compensation, such that a functionally dynamic interplay exists among the social provisions derived from various social relationships. Alternatively, it is also possible that an overly nurturant sibling bond may diminish a child's desire and motivation to develop interpersonal relations with children outside the family. In these cases, intense sibling bonds are fostered to the neglect of other social ties (Bank & Kahn, 1982).

Our findings also indicate that children who were viewed by their classmates as highly sensitive and isolated and low on sociability–leadership and aggression–disruption were functioning less well (more lonely, depressed, anxious, and immature–passive) than were aggressive or average children. This finding was somewhat surprising given the number of research reports documenting the poor adjustment outcomes of aggressive children (e.g., French, 1988; Parker & Asher, 1987). However, it should be noted that the outcomes included in this study were predominantly of an internalizing nature that would be expected to relate to the sensitive–isolated dimension (Hymel et al., 1990; Masten et al., 1985). Moreover, recall that the children with the most problematic peer relations (i.e., those who were both isolated and aggressive) were excluded from analyses. Other research (Ledingham, 1981; Ledingham & Schwartzman, 1984) suggests that this group is most at risk for serious maladjustment in later life and should be included in future investigations.

A fourth conclusion suggested by this study was that, for isolated children, support from a favorite sibling was associated, to some extent, with lessened socioemotional difficulties (i.e., diminished anxiety as rated by fathers and teachers and lower immaturity as rated by teachers). Although these results suggest a potentially ameliorating role of favorite siblings for peer-isolated children, a significant compensatory effect was demonstrated for only 3 (out of 12) outcomes. Therefore, the evidence of the second type of a compensatory pattern —one associated with protective effects—should not be exaggerated. Moreover, despite high levels of support from a favorite sibling, isolated children continued to evidence some adjustment difficulties when compared with average children. These results suggest, then, that support from a favorite sibling may not be sufficient to fully protect against the debilitating effects of low school friend support or an isolated peer reputation. As suggested by Weiss (1974) and others (eg., Shaver & Buhrmester, 1983), dyadic relationships, no matter how fulfilling, may not be able to substitute for ungratifying social group ties, and vice versa.

The results further show that high support from a favorite sibling was associated with greater anxiety (as rated by fathers) for aggressive children. Thus, although support from a favorite sibling may reduce some of the distress experienced by peer-isolated children, it has potentially detrimental effects for aggressive children. Perhaps aggressive children interact with siblings in ways that trigger conflict and, potentially, aggression. Alternatively, aggressive children may have like aggressive siblings (as suggested by Patterson, 1982). If this were the case, it would be understandable that high sibling support (i.e., frequent and intense contact) for aggressive children would undermine rather than promote children's

healthy functioning. More research is needed that examines the potential links between children's aggressive orientation toward peers and the quality of their interactions with siblings.

To our knowledge, this study is among the first to examine compensatory supportive patterns among children's peer relationships. As a first step in a relatively new area of study, this investigation was necessarily limited. Most notable among these limitations was reliance on subjects' reports of the qualities of their personal relationships. The present results require replication in future studies that include siblings' and friends' ratings of the relationship with the target child. Another limitation was the relatively small sample sizes of the peer groups and, consequently, reduced power of particular analyses. Small group sizes may be unavoidable, however, when studying children with relatively homogeneous peer relational difficulties. Researchers may also wish to consider other statistical analysis methods that may be better suited for distinguishing between the two types of compensation discussed in this study.

Further research should also extend the search for compensatory patterns to children's ties with adults and teachers. Some children may turn to these individuals for affection and support. Other children may retreat into noninterpersonal activities such as solitary hobbies and sports or school work as consolation for unsatisfying friendships. Researchers will need to be alert to the various ways that compensation may operate; a single pattern may not dominate. Furthermore, because the receipt of social support is not solely the function of children's level of need but is also affected by their ability to elicit support from others, some children may be motivated to form supportive relationships with others, but their skill deficits prevent them from successfully forming supportive ties. Hopefully, research that takes into account such individual differences in compensatory processes and effects will help to shed light on the multiple ways that children may adapt to unfulfilling social relationships.

Acknowledgments

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Table 1

Means, Standard Deviations, and F Values Associated With Children's Ratings of Social Support From a School Friend for Each Peer Group

| Support dimension | Peer group | | | | | | |
| | Isolated (*n* = 59) | | Aggressive (*n* = 54) | | Average (*n* = 87) | | |
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*(2, 197)
Companionship	10.12^{ab}	3.05	11.48^{a}	2.60	11.89^{b}	2.63	5.16^{***}
Enhancement of worth	10.07^{ab}	3.08	12.05^{a}	2.66	11.51^{b}	2.57	6.80^{****}
Instrumental help	8.48^{ab}	2.83	10.01^{a}	2.82	9.83^{*}	2.82	4.35^{**}
Intimacy	8.26^{ab}	3.38	10.34^{a}	3.25	10.51^{*}	3.75	6.90^{***}
Affection	8.15^{a}	3.10	9.54^{a}	3.41	9.09	3.50	2.15
Reliable alliance	9.74^{b}	3.25	10.80	3.14	11.01^{b}	3.17	2.38^{*}
Satisfaction	11.26^{a}	2.91	12.49^{a}	2.47	12.02	2.85	2.60^{*}
Total	65.80^{ab}	18.55	74.40^{a}	18.06	75.64^{*}	17.72	

Note. The possible score range is 3–15, with higher scores reflecting greater support. Means with the same letter superscript in the same row are significantly different ($p < .05$). The multivariate, $F(14,372) = 2.00$, $p < .05$. The univariate, $F(2,192) = 5.61$, $p < .01$ for the total support score.

[a] Isolated-aggressive group comparison.

[b] Isolated-average group comparison.

[*] $p<.10$.

[**] $p<.05$.

[***] $p<.01$.

[****] $p<.001$.

Table 2

Means, Standard Deviations, and F Values Associated With Children's Ratings of Social Support From a Favorite Sibling for Each Peer Group

	Peer group						
	Isolated ($n = 59$)		Aggressive ($n = 54$)		Average ($n = 87$)		
Support dimension	M	SD	M	SD	M	SD	$F(2, 197)$
Companionship	11.36^{ab}	3.10	9.89^{a}	3.23	9.98^*	2.83	4.69^{**}
Enhancement of worth	10.79^{ab}	3.60	9.44^{a}	3.84	9.19^*	3.20	3.83^{**}
Instrumental help	9.13^{ab}	3.86	7.39^{a}	3.27	7.83^*	3.42	3.88^{**}
Intimacy	8.85^{ab}	4.16	6.51^{a}	3.56	6.85^*	3.36	7.31^{***}
Affection	10.54^*	3.85	9.67	3.95	9.16^*	3.13	2.62^*
Reliable alliance	12.27	3.38	11.81	3.08	11.83	2.77	<1
Satisfaction	12.01	3.20	11.65	3.01	11.40	3.11	<1
Total	74.85^{ab}	21.64	66.36^{a}	19.08	66.24^*	16.09	

Note. The possible score range is 3–15, with higher scores reflecting greater support. Means with the same letter superscript in the same row are significantly different. The multivariate, $F(14,380) = 1.75$ $p < .05$. The univariate, $F(2, 196) = 4.45$, $p < .05$ for the total support score.

[a] Isolated-aggressive group comparison.

[b] Isolated-average group comparison

*
$p < .10$.

**
$p < .05$.

***
$p < .001$.

Table 3

Means, Standard Deviations, and F Values Associated With Children's Adjustment for Each Peer Group

| | Peer group | | | | | | |
| | Isolated | | Aggressive | | Average | | |
Adjustment variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F(df)*
Loneliness (self-rated)	45.70^{ab}	12.00	38.33^{a}	11.62	31.62^{b}	10.32	4.04^{c} (2, 197)
Depression (self-rated)	40.40^{b}	9.60	37.18	9.13	36.38^{b}	10.30	3.44^{c} (2, 197)
Self-worth (self-rated)	17.99	4.01	18.56	3.78	18.49	3.65	<1 (2, 197)
Sociability–leadership (self-rated)	38.05^{ab}	9.70	44.55^{a}	9.33	46.50^{b}	9.45	19.40^{*} (2, 197)
Social sensitivity–isolation (self-rated)	11.62	3.55	11.02	3.98	10.47	3.42	2.08 (2, 197)
Aggression–disruption (self-rated)	13.16^{a}	4.61	15.54^{a}	5.51	14.16	5.55	3.32^{*} (2, 197)
Anxiety (mother-rated)	7.33	2.72	6.96	2.09	6.82	1.96	1.55 (2, 162)
Anxiety (father-rated)	7.00	2.15	6.61	2.32	6.43	1.35	1.19 (2, 108)
Anxiety (teacher-rated)	10.95^{ab}	3.19	8.82^{ac}	3.00	7.53^{bc}	2.08	11.74^{**} (2, 197)
Immaturity-passivity (mother-rated)	7.81^{ab}	2.25	7.47	2.16	6.77^{b}	1.53	3.91^{*} (2, 162)
Immaturity-passivity (father-rated)	7.61^{b}	2.08	7.71^{c}	2.13	6.60^{bc}	1.20	3.71^{*} (2, 108)
Immaturity-passivity (teacher-rated)	8.43^{b}	3.02	7.23^{c}	2.41	5.70^{bc}	1.45	18.77^{**} (2, 197)

Note. Higher scores reflect a greater propensity of that particular characteristic. Means with the same letter superscript in the same row are significantly different ($p < .05$). The multivariate, $F(24, 138) = 1.97$, $p < .01$. Group sizes for the isolated, aggressive, and average groups are as follows: for self-ratings and teacher ratings, $n = 59$, $n = 54$, and $n = 87$; for mother ratings, $n = 48$, $n = 45$, and $n = 71$; and for father ratings, $n = 28$, $n = 32$, and $n = 51$, respectively comparison.

[a]Isolated–aggressive group comparison.

[b]Isolated–average group comparison.

[c]Aggressive–average group comparison

[*]$p<.05$.

[**]$p<.001$.

Table 4

Means and Standard Deviations of Children's Adjustment by Favorite Sibling Support and Peer Group

Adjustment variable	Peer group								
	Isolated			**Aggressive**			**Average**		
	M	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*
	High sibling support								
Anxiety									
Father-rated	6.10[*]	0.85	14	7.50[*]	3.57	15	6.24	1.62	25
Teacher-rated	8.76[*]	3.79	29	8.05	2.43	27	7.49	2.78	43
Immaturity–passivity									
Mother-rated	7.60	1.50	24	7.33	1.45	23	7.09	1.68	35
Teacher-rated	7.40[*a]	2.03	29	6.99[*]	1.66	27	5.68[ab,]	1.61	43
	Low sibling support								
Anxiety									
Father-rated	7.90[*]	3.76	14	5.79[*]	0.80	17	6.54	1.39	26
Teacher-rated	13.14[*]	4.69	30	9.58	4.03	27	7.57	2.78	44
Immaturity–passivity									
Mother-rated	7.89	2.19	24	7.61	2.12	22	6.45	1.44	36
Teacher-rated	9.46[*]	2.46	30	7.47	1.94	27	5.72	1.61	44

Note. Higher scores reflect a greater propensity of the behavior. Contrasts between peer groups were computed only on the means in the top half of the table. Means with the same letter superscript in the same row are significantly different.

[a] Isolated-average group comparison.

[b] Aggressive-average group comparison.

[*] A significant difference of adjustment scores between high and low sibling support groups within peer group.