

A Longitudinal Study of Relational Aggression, Physical Aggression, and Children's Social–Psychological Adjustment

Nicki R. Crick,^{1,4} Jamie M. Ostrov,² and Nicole E. Werner³

Received August 14, 2003; revision received July 18, 2005; accepted July 21, 2005
Published online: 26 April 2006

Although great strides have recently been made in our understanding of relational aggression and its consequences, one significant limitation has been the lack of prospective studies. The present research addressed this issue by identifying and assessing groups of relationally aggressive, physically aggressive, relationally plus physically aggressive (co-morbid), and nonaggressive children during their third grade year in elementary school and then reassessing them a year later, during fourth-grade ($N = 224$, 113 girls). Two aspects of social–psychological adjustment were assessed during both assessment periods including internalizing difficulties (i.e., withdrawal, depression/anxiety, and somatic complaints) and externalizing problems (i.e., aggressive behavior, delinquency). It was revealed that the strongest predictor of future social–psychological adjustment problems and increases in these problems from third to fourth was the combination of relational and physical aggression. Relational aggression also contributed unique information, relative to physical aggression, in the prediction of future maladjustment. Implications of these findings for future research and prevention efforts, particularly for aggressive girls, are discussed.

KEY WORDS: physical aggression ; relational aggression ; social adjustment .

Longitudinal investigations have demonstrated that aggression is one of the best known predictors of future social, psychological, behavioral, and academic problems including peer rejection, delinquency, risky sexual behavior, depression, poor school achievement, and peer victimization (for reviews, see Coie & Dodge, 1998; Foster, *in press*). Although hundreds of studies, books, and journals have been dedicated to the study of aggression, the majority of studies have been limited in two important ways: (1) Aggressive boys have received most of the research attention, whereas aggressive girls have often been excluded from relevant studies and (2) Forms of aggression that are salient to boys have been emphasized, whereas forms that are salient to girls have been neglected (for a review, see Crick et al., 1999). Because of these limita-

tions, we currently know relatively little about girls who are aggressive. Given the risk status typically associated with aggressive behavior patterns, this lack of knowledge is significant and disturbing.

In an attempt to address these serious limitations, investigators have recently turned their attention to the identification of aggressive behaviors that are more salient for girls than the physically aggressive acts that have captured the majority of past empirical and theoretical attention (e.g., Bjorkqvist, Lagerspetz, & Kaukianen, 1992; Cairns, Cairns, Neckerman, Ferguson, & Garipey, 1989; Crick & Grotpeter, 1995). In one of these investigative avenues, a relational form of aggression has been assessed that has been shown to be particularly important for the lives of girls (for a review, see Crick et al., 1999). In contrast to physical aggression, in which physical damage (or the threat of physical damage) serves as the agent of harm, relational aggression includes behaviors in which damage to relationships (or the threat of relationship damage) serves as the vehicle of harm (Crick & Grotpeter, 1995). Relational aggression includes direct and indirect acts such as threatening to end a friendship unless a peer complies with

¹ University of Minnesota, Twin Cities, Minnesota.

² Buffalo, University at Buffalo, The State University of New York, New York.

³ Pullman, Washington State University, Washington.

⁴ Address all correspondence to Nicki R. Crick, Institute of Child Development, University of Minnesota, 51 East River Road, Minneapolis, Minnesota 55455; email: crick001@umn.edu.

a request, using social exclusion as a retaliatory behavior, and spreading false rumors to encourage peers to reject a classmate.

A number of studies have demonstrated that relational aggression is more typical of girls than boys and more normative for girls than physical aggression (e.g., Crick, 1996; Crick & Grotpeter, 1995; McNeilly-Choque, Hart, Robinson, Nelson, & Olsen, 1996; Ostrov & Keating, 2004). Additionally, exposure to relational difficulties, events that are often produced by relationally aggressive acts, has been shown in several studies to be significantly more cognitively disorienting, stressful, and emotionally problematic for girls, relative to boys (e.g., Crick, 1995; Crick, Grotpeter, & Bigbee, 2002; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999; Rudolph & Hammen, 1999). These studies emphasize the importance of relationally-oriented acts of aggression for the development and adjustment of girls and highlight the need for research that documents the implications of relational aggression for children's well-being.

Consistent with this objective, recent research provides evidence that relational aggression may play a detrimental role in children's development. Evidence from numerous studies demonstrates that, similar to physically aggressive children, relationally aggressive children are at risk for serious adjustment difficulties. Relational aggression has been shown to be associated with significantly high levels of concurrent peer rejection, problematic friendships, internalizing difficulties, and externalizing problems (e.g., Crick, 1997; Grotpeter & Crick, 1996; Prinstein, Boergers, & Vernberg, 2001; Tomada & Schneider, 1997; Werner & Crick, 1999). Although great strides have been made in research on relational aggression and social-psychological adjustment in recent years, one important limitation has been the lack of studies with prospective designs. Such research is crucial for testing the utility of relational aggression for early identification of children at risk for future psychopathology. This is a significant and necessary empirical objective for the field to pursue as it has implications not only for increasing our understanding of children's aggressive behavior problems but also for the design and implementation of future prevention and intervention efforts.

Although longitudinal studies of relational aggression and adjustment are rare, the results of one prospective study of third, fourth, fifth, and sixth graders showed that relational aggression significantly predicted future peer rejection over the course of a single academic school year (i.e., during a 6-month interval from the beginning to the end of the same school year; Crick, 1996). These findings provide initial evidence that relational aggression may be an important indicator of future social-

psychological adjustment during middle childhood. The present investigation was designed to extend this study, and other relevant studies, in a number of important ways.

Our first goal was to study the association between relational aggression and social-psychological adjustment prospectively over the course of a calendar year (i.e., a time interval of 12 months). This is significant because, in contrast to the Crick (1996) study in which assessments were conducted within the same school year (e.g., beginning of third grade to the end of third grade), a time interval of 1 year spans two relatively different classroom contexts (e.g., third to fourth grade). A recent study by Cillessen and Mayeux (2004) examined the predictive utility of relational aggression for predicting adjustment problems across different classroom contexts for a sample of adolescents. Overall, results of this study provided little evidence to support this temporal association. However, the relative lack of findings may be due, at least partly, to the fact that these investigators used only a portion of the relational aggression subscale developed in past research to assess this construct (e.g., see Crick, 1997) and thus the psychometric properties of their assessments of relational aggression are unknown (i.e., they used only one to two items, depending on grade level, to measure relational aggression). Further, both the Crick (1996) and the Cillessen and Mayeux (2004) studies were limited by possible shared-method bias because peers were used to assess both relational aggression and adjustment. In the present study, we assessed the association between relational aggression across two classroom contexts using an instrument with demonstrated reliability and validity. Further, we avoided shared-method variance problems by using peer assessments of aggression and teacher reports of adjustment. Taken together, these procedures provided a more conservative test of the utility of relational aggression for predicting future adjustment difficulties than has been achieved in previous research.

The second goal of this investigation was to examine the association between physical aggression and adjustment prospectively for girls as well as for boys. In contrast to many previous studies in which physically aggressive girls either have been excluded from relevant samples or represented such a minority of the physically aggressive participants that obtained results were applicable primarily for aggressive boys (for examples of exceptions, see Bardone, Moffitt, Caspi, Dickson, & Silva, 1996; Giordano & Cernkovich, 1997; Moffitt & Caspi, 2001; Robins, 1986; Serbin, Peters, McAffer, & Schwartzman, 1991), we screened a relatively large number of potential participants (more than 2,500) to ensure that the aggressive groups examined in the research (i.e.,

physically aggressive, relationally aggressive) as well as the nonaggressive control group were relatively balanced with respect to gender. Further, power analyses conducted on the resulting sample (with attrition taken into account at the Time 2 assessments and using the procedures described by Cohen, 1988) indicated sufficient numbers of girls and boys in each group to detect interactions of gender and aggression status, should they exist (i.e., analyses revealed high power for detecting medium-sized effects).

The third goal of this research was to examine whether relational aggression predicts future social-psychological adjustment above and beyond physical aggression. Hundreds of studies have demonstrated the significant association between physical aggression and future psychopathology (for a review, see Coie & Dodge, 1998). Given that physical and relational aggression have been shown to be moderately correlated in past studies (for a review, see Crick et al., 1999), it is important to determine whether relational aggression adds significantly to physical aggression in enhancing our understanding of children's future adjustment problems or simply reflects information that overlaps with these more traditionally studied aggressive behaviors.

Our fourth objective of this research was to include a broader assessment of adjustment than that included in the previously described longitudinal study of relational aggression. Adjustment assessments in the Crick (1996) and Cillessen and Mayeux (2004) studies were limited to peer status (e.g., rejection by classmates), an important but narrowly focused index of children's social-psychological adjustment. In the present investigation, a variety of internalizing and externalizing difficulties were assessed, elements of psychopathology that have been shown to capture a majority of children's commonly experienced adjustment problems (Achenbach, 1991): withdrawal, anxiety/depression, somatic complaints, physically aggressive acts/oppositional behavior, and delinquent behavior.

Our fifth and final objective was to evaluate the stability of individual differences in relational aggression. Numerous past studies have shown that physical aggression is relatively stable over long periods of time (for a review, see Coie & Dodge, 1998). Initial evidence indicates that relational aggression is also relatively stable over time (Crick, 1996; Cillessen & Mayeux, 2004). However, existing studies have significant limitations. The Crick (1996) study was limited by a relatively short time frame (6 months), whereas the Cillessen and Mayeux (2004) research was limited by the use of assessments of relational aggression with unknown psychometric prop-

erties. Thus, additional research is needed that addresses these issues.

HYPOTHESES AND OVERVIEW OF STUDY

We hypothesized that relationally aggressive children as well as their physically aggressive peers would exhibit significant future psychopathology as indexed by the five targeted aspects of internalizing and externalizing difficulties. Past studies of differential prediction of adjustment from relational and physical aggression are scarce. However, findings from one study suggest that, although both forms of aggression are associated with externalizing problems, relational aggression is more strongly associated with internalizing problems (Crick, 1997). Thus, we expected that, if relational and physical aggression uniquely predicted future adjustment problems, our results would parallel those found by Crick (1997). The Crick (1997) study also evaluated the role of gender in the association between aggression and maladjustment. Based on the findings obtained in that study, we also expected that, if gender moderated these associations in the present research, children who engaged in non-normative forms of aggression for their gender (i.e., relationally aggressive boys and physically aggressive girls) would exhibit the highest levels of future adjustment problems. We also hypothesized that relational aggression would add unique information to physical aggression in the prediction of future adjustment problems. Further, we expected that, due to the hostile, aversive nature of aggressive acts, relationally aggressive children as well as physically aggressive children would become more maladjusted over time. That is, we expected that frequent engagement in these behaviors would result in a host of difficulties for children (e.g., school problems, peer difficulties, victimization) that may exacerbate aggressive children's social-psychological adjustment problems over the course of the study (e.g., they may react to these difficulties with anxiety/depression or by engagement in delinquent behavior). Findings from Crick (1996) support this prediction as results from this study showed that relationally aggressive children became significantly more rejected by peers over the course of a school year. Finally, we expected that individual differences in relational aggression would be moderately stable over the course of the study.

We addressed our five objectives via longitudinal study of relationally aggressive, physically aggressive, relationally plus physically aggressive, and nonaggressive boys and girls who were initially identified and assessed during their third grade school year, and were re-

assessed a year later during fourth grade. Peer assessments were used to evaluate aggressive behavior, and teacher assessments were employed to evaluate children's social-psychological adjustment.

METHOD

Participants

The participants in this study were part of a larger, longitudinal study of childhood aggression and gender, conducted in a large Midwestern city. All participants had active parental consent to take part in this investigation and also provided their own assent. Two assessments are reported here, Time 1 and Time 2, which were separated by an interval of approximately 12 months. At the start of the study, children were distributed across 106 classrooms in 40 elementary schools. Parental consent rates ranged from 40% to 100% within each classroom with an average of 74.1% (only 11 of the 106 classrooms had consent rates less than 60%, and typically these low rates were due primarily to parents' difficulty reading English).

At Time 1, participants completed a group-administered peer-nomination instrument designed to measure physical and relational aggression and prosocial behavior (i.e., Children's Social Behavior Scale—Peer Report; CSBS-P; Crick, 1997). Scores on this instrument were used to classify children into four discrete groups (i.e., $>1SD$ above the sample mean for either form of aggression or both): non-aggressive, relationally aggressive, physically aggressive, and a combined group of children who were both relationally aggressive and physically aggressive. From each participating classroom, all aggressive third graders who met the above criteria (0–5 per classroom) and randomly selected non-aggressive third graders who were matched with aggressive children, when possible, on race and gender, were invited to participate in the longitudinal study. These children made up the *target child sample* (TCS) of the longitudinal study and represent the sample used in all of the analyses of the association between aggression and adjustment for the present study. All children who completed the peer-nomination instrument (including those in the TCS) made up *reporting sample 1* (RS1). At Time 2 (fourth grade for children in the TCS) all children in the TCS and their classmates once again completed the peer-nomination instrument and this sample constituted *reporting sample 2* (RS2; note that not all of the fourth grade classmates were the same as those in third grade). This allowed for the evaluation of the stability of aggressive behavior from third to

fourth grade (i.e., stability could not be appropriately assessed with the TCS because it consists of extreme groups only).

Reporting Sample 1: Time 1

A total of 2,589 children completed the peer-nomination instrument at the initial assessment (T1), and these data were used to obtain the current peer-rated aggression scores for the TCS reported in the current study. Approximately, half of the sample was female (49.3%). The majority of children were in the third grade (88.7%), 8.4% were in the fourth grade, and 2.9% were in the second grade.⁵ The ethnic composition of the sample closely resembled that of the TCS, with 47.7% European-American participants, 25.2% African-American, 5.8% Hmong, 5.0% Asian-American, 4.8% Latino, 4.3% Native American, and 7.4% of the children belonging to other ethnic groups.

Reporting Sample 2: Time 2

A total of 2,441 children completed the peer-nomination instrument (50.6% female). Approximately, 80% of these children were in the fourth grade, 9.3% were in the fifth grade, 6.4% were in the sixth grade, and 3.7% were in the third grade.⁶ 58.5% of the sample was European-American, 19.9% was African-American, 5.6% was Hmong, 4.2% was Latino, 4.0% was Asian-American, 3.0% was Native American, and the remaining 4.8% belonged to other ethnic groups.

Target-Child Sample

A total of 234 third graders participated in this research during the first year of assessments (115 girls, 119 boys), and 224 of these children also took part during fourth grade in the second year of this research (113 girls, 111 boys). The sample included 60.0% European-American, 17.7% African-American, 3.7% Latino, 2.5% Native American, 1.6% Asian-American, 1.6% Hmong, 1.2% Indian, and 11.7% other ethnicities. At the onset of the study, 68% of the children came from families in which their primary caregiver was married, 17% were divorced or separated, and 15% were never married. The

⁵ Third graders were of interest in this research; however, some of the targeted classrooms in RS1 were mixed grade and thus some second and fourth graders were included in the peer assessments.

⁶ As with RS1, RS2 also included some mixed-grade classrooms and thus, although all of the target children were in fourth grade at Time 2, peer informants ranged from third to sixth grade.

family income of the majority of children was between \$50,001 and \$70,000, and approximately 82% of female caregivers were employed either full-time or part-time.

The TCS at Time 1 consisted of 34 (13 girls) children who were both physically and relationally aggressive; 33 (25 girls) children who were relationally but not physically aggressive; 39 (11 girls) physically but not relationally aggressive children; and 134 (70 girls) children who were neither physically nor relationally aggressive. This study was specifically designed to follow the TCS at Time 2, resulting in a low attrition rate (<5%) for the target children from Time 1 to Time 2.

Assessment of Relational and Physical Aggression

A peer-nomination instrument, the CSBS-P was used to assess relational and physical aggression (Crick, 1997). This measure consists of three subscales, two of which assess aggression. The physical aggression subscale consists of five items (e.g., kids who hit, kick, or punch others). The relational aggression subscale also consists of five items (e.g., kids who try to make others not like certain people by spreading rumors about them or talking behind their backs). The other subscale, prosocial behavior, consists of four items that serve as positively-toned filler items.

Following procedures developed in numerous prior studies, during the administration of the peer-nomination instrument in grade school classrooms, participants were provided with a class roster and were asked to nominate up to three classmates who best fit the behavioral descriptions provided for each of the items on the measure. The number of nominations children received from classmates for each of the items on these subscales was standardized within class. The standardized scores for the items of a subscale were then summed to yield total subscale scores.

Both of the aggression subscales on the CSBS-P have been shown to be highly reliable in past research with Cronbach's alpha ranging from .82 to .89 for the relational aggression subscale and from .94 to .97 for the physical aggression subscale and test-retest reliability over a 4-week interval of $r = .82$ and $r = .90$ for the relational and physical aggression subscales, respectively (e.g., Crick, 1996; 1997). Also, factor analysis of the peer-nomination measure has consistently confirmed the existence of two distinct factors for relational and physical aggression and evidence for construct validity has also been established (for a review, see Crick et al., 1999). Reliabilities of children's responses to the CSBS-P were favorable for this sample with al-

phas of .88 for relational aggression and .95 for physical aggression.

Assessment of Social-Psychological Adjustment

Children's social-psychological adjustment was assessed via teacher reports on the teacher report form (TRF; Achenbach, 1991), a widely used instrument with demonstrated reliability and validity. This instrument consists of 118 items, 69 of which were used in the present report (all 118 items were administered). The included items comprise two general adjustment scales and several subscales of maladaptive behavior, internalizing (i.e., withdrawal, anxiety/depression, and somatic complaints subscales) and externalizing (i.e., delinquency and aggression subscales). The individual syndrome subscales were of interest in the present research and were used in subsequent analyses (e.g., withdrawal, anxiety/depression, delinquency, etc.). The response scale for each item ranges from 0 (not true of this child) to 2 (very true or often true of this child).

Cronbach's alphas were computed to ensure that teachers' responses to the items on the TRF were reliable for this sample. Results from Time 1 assessments confirmed that these responses were highly reliable with alphas of .75 for withdrawal, .80 for anxiety/depression, .76 for somatic complaints, .88 for delinquency, and .92 for aggression. Results for Time 2 were similar with alphas of .73 for withdrawal, .86 for anxiety/depression, .81 for somatic complaints, .87 for delinquency, and .93 for aggression. Each child's head teacher completed the TRF and new teachers completed packets at Time 2 for all of the participants. As recommended by Achenbach (1991), raw scores were used in subsequent analyses rather than *T* scores as the computation of *T* scores creates difficulties with the variation in scores that may be problematic for research purposes, particularly for the syndrome subscales (i.e., withdrawal, anxiety/depression, etc.). For the present sample, raw summed scores ranged 0–13 for withdrawal, 0–18 for anxiety/depression, 0–10 for somatic complaints, 0–22 for delinquency, and 0–33 for aggression.

RESULTS

Associations Between Teacher Reports of Social-Psychological Adjustment on the TRF

To evaluate the degree of overlap among teacher reports of the five indicators of social-psychological adjust-

Table I. Correlations Among Teacher Reports of Social–Psychological Adjustment on the TRF Within Time Periods

Variable	1	2	3	4	5
Time 1 assessments					
1. Withdrawal	—	0.50**	0.38**	0.45**	0.33**
2. Anxiety/depression			0.40**	0.56**	0.53**
3. Somatic complaints				0.39**	0.33**
4. Delinquency					0.93***
5. Aggression					—
Variable	6	7	8	9	10
Time 2 assessments					
6. Withdrawal	—	0.62**	0.39**	0.43**	0.31**
7. Anxiety/depression			0.52**	0.25**	0.24**
8. Somatic complaints				0.16*	0.23**
9. Delinquency					0.61**
10. Aggression					—

* $p < .05$, ** $p < .01$, *** $p < .001$.

ment, correlations were computed for Time 1 and Time 2 teacher TRF assessments (see Table I). Results indicated low to moderate associations (ranging from $r = .16$ to $r = .62$) except for the association between delinquency and aggression at Time 1 ($r = .93$). The stability of teacher reports of adjustment from Time 1 to Time 2 was also examined via correlation coefficients. Results revealed $r = .31$, $p < .001$ for withdrawal; $r = .41$, $p < .001$ for anxious/depressed; $r = .34$, $p < .001$ for somatic complaints; $r = .71$ for delinquency; and $r = .69$ for aggression.

Associations Between Relational and Physical Aggression

Correlation coefficients indicated moderate to moderately high levels of association between physical and relational aggression. Based on the Time 1 RS1, peer reported physical and relational aggression were correlated, $r = .80$, $p < .001$ for boys and $r = .64$, $p < .001$ for girls. Based on the Time 2 RS2, the association between physical and relational aggression was $r = .72$, $p < .001$ for boys and $r = .56$, $p < .001$ for girls. Longitudinal associations between these two constructs were also examined. Results showed that third grade relational aggression was associated $r = .52$, $p < .001$ and $r = .36$, $p < .001$, with fourth grade physical aggression for boys and girls, respectively. Additionally, third grade physical aggression was associated $r = .63$, $p < .001$ and $r = .47$, $p < .001$, with fourth grade relational aggression for boys and girls, respectively.

Aggression and Future Social–Psychological Adjustment

To examine the association between aggression status and future social–psychological adjustment, two 4 (aggression status: non-aggressive, physically aggressive, relationally aggressive, co-morbid physically, and relationally aggressive) \times 2 (gender) MANOVAs were conducted in which children's fourth grade (Time 2) adjustment scores from the TRF served as the dependent variables. Children's third grade (Time 1) aggression status was employed in these analyses. Analyses were first run with children's internalizing scores (i.e., withdrawn, anxiety/depression, and somatic complaints) with the second set of analyses for externalizing scores (i.e., aggressive and delinquent behaviors). See Table II for average adjustment scores by aggression status and for information regarding the clinical salience of the obtained means.

Internalizing Difficulties: Withdrawal, Anxiety/Depression, and Somatic Complaints

A significant multivariate main effect was found for aggression status, $F(3, 209) = 2.98$, $p < .01$, $\eta^2 = 0.04$. The follow-up univariate tests revealed a significant effect for withdrawn behavior at Time 2, $F(3, 209) = 7.08$, $p < .001$, $\eta^2 = 0.10$. Tukey post-hoc tests revealed that the co-morbid group was significantly ($p < .05$) more withdrawn than either the non-aggressive or the relationally aggressive group. Univariate tests also yielded a significant effect for anxious-depressive symptoms at Time 2, $F(3, 209) = 5.51$, $p < .001$, $\eta^2 = 0.07$. Tukey post-hoc tests revealed that the co-morbid group was significantly ($p < .05$) more anxious than the non-aggressive and the physically aggressive group. The univariate test for somatic complaints was also marginally significant at Time 2, $F(3, 209) = 2.51$, $p < .06$, $\eta^2 = 0.04$; however, no significant post-hoc effects were found.

Externalizing Problems: Delinquency and Aggression

The multivariate analyses yielded a main effect for gender, $F(1, 213) = 12.97$, $p < .001$, $\eta^2 = 0.11$. Follow-up univariate analyses indicated significant effects for aggression at Time 2, $F(1, 213) = 9.36$, $p < .01$, $\eta^2 = 0.04$ and for delinquency at Time 2, $F(1, 213) = 20.27$, $p < .001$, $\eta^2 = 0.09$. Males ($M = 9.24$; $SD = 8.90$) displayed more aggressive behavior at Time 2 than females

Table II. Descriptive Statistics of TRF Adjustment Scores by Time 1 Aggression Status

Status	With	A/D	Som	Delinq	Agg
Time 1 TRF scores					
Physical	2.63 (2.95)	4.13 (3.38)	+1.18 (2.09)	+7.13 (5.12)	10.14 (8.83)
Relational	2.09 (2.91)	3.52 (3.22)	0.85 (1.64)	+5.94 (5.39)	8.45 (6.94)
Co-morbid	2.74 (3.78)	5.06 (4.42)	++ +1.14 (1.85)	+9.12 (5.70)	++ 13.36 (7.22)
Nonagg	1.98 (2.61)	3.40 (3.69)	++ +1.10 (2.16)	+ +2.88 (4.00)	4.26 (6.12)
Time 2 TRF scores					
Physical	3.00 (3.09)	3.61 (4.41)	+1.33 (1.84)	+5.97 (5.53)	10.72 (9.46)
Relational	2.53 (2.21)	3.66 (4.98)	+1.50 (2.41)	+5.28 (4.30)	8.63 (6.18)
Co-morbid	+4.59 (3.24)	+6.72 (4.78)	+1.87 (2.67)	+9.71 (5.60)	+ + 15.16 (8.51)
Nonagg	2.09 (2.29)	3.00 (3.73)	0.76 (2.17)	+ + 3.09 (3.86)	4.26 (5.57)

Note. Standard deviations are in parentheses. With = withdrawn behavior; A/D = anxiety/depression; Som = somatic complaints; Delinq = delinquency; Agg = aggression; Nonagg = non-aggressive group.

+ means that the group average exceeds the average score for both boys and girls in the referred sample reported by Achenbach (1991). ++ means that the group average exceeds the average referred sample score for girls only. +++ means that the group average exceeds the average referred sample for boys only.

($M = 5.81$; $SD = 6.46$). Males ($M = 6.20$; $SD = 5.52$) also displayed more delinquent behavior at Time 2 than females ($M = 3.47$; $SD = 4.09$).

The multivariate analyses also yielded a main effect for aggression status, $F(3, 213) = 11.01, p < .001, \eta^2 = 0.13$. Univariate effects were revealed for both aggression at Time 2, $F(3, 213) = 20.42, p < .001, \eta^2 = 0.22$, and for delinquency at Time 2, $F(3, 213) = 17.51, p < .001, \eta^2 = 0.20$. Tukey post-hoc tests indicated that the co-morbid group was significantly ($p < .05$) more aggressive than the other three groups. In addition, both the relationally aggressive and the physically aggressive groups were significantly ($p < .05$) more aggressive than the non-aggressive group. Similarly, Tukey post-hoc tests revealed that the co-morbid group was significantly ($p < .05$) more delinquent than any of the other three groups. Both the relationally aggressive and the physically aggressive groups were also significantly ($p < .05$) more delinquent than the non-aggressive group.

Aggression and Changes in Social–Psychological Adjustment

To examine the association between aggression status and changes in social–psychological adjustment, two 4 (aggression status: non-aggressive, physically aggressive, relationally aggressive, co-morbid physically and relationally aggressive) \times 2 (gender) MANCOVAs were conducted in which children’s fourth grade (Time 2) adjustment scores from the TRF served as the dependent variables and their third grade (Time 1) adjustment scores

served as the covariates. As in the previous set of analyses, children’s third grade (Time 1) aggression status was employed in these analyses. See Table III for average adjustment scores by aggression status (adjusted for covariates) as well as information regarding the clinical salience of the obtained findings.⁷

Changes in Internalizing Difficulties

The MANCOVA for internalizing problems yielded a significant main effect for status, $F(3, 196) = 2.35, p < .01, \eta^2 = 0.03$. Follow-up univariate tests revealed significant effects for withdrawn behavior at Time 2, $F(3, 196) = 5.23, p < .01, \eta^2 = 0.07$, anxious-depressive symptoms at Time 2, $F(3, 196) = 3.53, p < .05, \eta^2 = 0.05$, and somatic complaints at Time 2, $F(3, 196) = 2.89, p < .05, \eta^2 = 0.04$. Tukey post-hoc tests ($p < .05$) showed that the co-morbid group became significantly more withdrawn and anxious/depressed than all three other groups from third to fourth grade. Also, both the co-morbid group ($p < .08$) and the relationally aggressive group ($p < .06$) tended to show greater increases in somatic complaints than the non-aggressive group from third to fourth grade. See Table III for means.

⁷To examine the clinical relevance of the obtained findings, we compared the means for the relational aggression groups and the physical aggression (from the ANOVAs) reported in Tables II–IV to the means obtained by Achenbach (reported in the TRF 1991 manual) for a sample of 1,275 children referred for mental services due to behavioral/emotional problems. In all three of the tables we have indicated those means that exceed the average for Achenbach’s referred sample (an indicator of clinical salience).

Table III. Average Time 2 Adjustment Scores by Time 1 Aggression Status Adjusted for Time 1 Adjustment

Adjustment	Non-Aggressive	Relationally	Physically	Co-Morbid
Withdrawal	2.09 (0.23)	2.85 (0.50)	2.66 (0.46)	++ 4.12 (0.46)
Anxiety/depression	3.16 (0.37)	3.75 (0.81)	3.16 (0.74)	5.81 (0.74)
Somatic complaints	0.76 (0.20)	+1.74 (0.44)	++ +1.12 (0.41)	+1.89 (0.41)
Aggression	6.17 (0.52)	7.64 (1.11)	8.42 (1.05)	11.03 (1.04)
Delinquency	+4.36 (0.32)	+5.16 (0.69)	+4.09 (0.66)	+7.00 (0.65)

Note. Standard errors are in parentheses.

+ means that the group average exceeds the average score for both boys and girls in the referred sample reported by Achenbach (1991). ++ means that the group average exceeds the average referred sample score for girls only. +++ means that the group average exceeds the average referred sample for boys only.

* $p < .05$, ** $p < .01$.

Changes in Externalizing Difficulties

The multivariate analyses revealed a main effect for gender, $F(1, 200) = 10.33, p < .001, \eta^2 = 0.09$. Follow-up univariate tests were significant for both aggression at Time 2, $F(1, 200) = 4.18, p < .05, \eta^2 = 0.02$ and delinquency at Time 2, $F(1, 200) = 15.30, p < .001, \eta^2 = 0.07$. Males ($M = 9.28; SE = 0.68$) displayed significantly more of an increase in aggressive behavior from third to fourth grade relative to females ($M = 7.35; SE = 0.67$). In addition, males ($M = 6.31; SE = 0.43$) demonstrated significantly more of an increase in delinquent behavior from third to fourth grade relative to females ($M = 4.00; SE = 0.42$).

The multivariate analyses also yielded a significant main effect for aggression status, $F(3, 200) = 5.38, p < .001, \eta^2 = 0.08$. Follow-up univariate tests were significant for both aggression at Time 2, $F(3, 200) = 5.68, p < .001, \eta^2 = 0.08$, and delinquency at Time 2, $F(3, 200) = 4.81, p < .01, \eta^2 = 0.07$. Tukey post-hoc tests ($p < .05$) revealed that the co-morbid group became significantly more aggressive from third to fourth grade relative to the non-aggressive group. Also, the co-morbid group showed significant increases in delinquent behavior from third to fourth grade relative to the non-aggressive and physically aggressive groups. See Table III for means.

Unique Contribution of Relational Aggression to the Prediction of Future Adjustment

To examine whether relational aggression provided unique information about future adjustment, beyond that provided by physical aggression, 2 (relational aggression status) \times 2 (gender) MANCOVAs were conducted in which third grade (Time 1) continuous physical aggression scores served as the covariate and fourth grade (Time 2) adjustment scores served as the dependent

variables. Children's third grade (Time 1) relational aggression status was employed in these analyses. See Table IV for average adjustment scores by relational aggression status adjusted for the covariate as well as information regarding the clinical relevance of the obtained findings.

Internalizing Difficulties

A multivariate main effect for relational aggression status was revealed, but was a marginal trend, $F(3, 210) = 2.47, p < .06, \eta^2 = 0.03$. For exploratory purposes and because this effect was significant in prior analyses, we pursued this trend and it was revealed that the univariate tests were significant for withdrawn behavior at Time 2, $F(1, 212) = 6.43, p < .01, \eta^2 = 0.03$ and for anxious-depressive symptoms at Time 2, $F(1, 212) = 4.87, p < .05, \eta^2 = 0.02$ indicating that, after controlling for physical aggression, relationally aggressive children tended to be more withdrawn and anxious/depressed at Time 2 than nonrelationally aggressive children.

Table IV. Average Time 2 Adjustment Scores by Relational Aggression Status Adjusted for Time 1 Physical Aggression

Adjustment index	Nonrelationally aggressive	Relationally Aggressive
Withdrawal	2.38 (0.21)	3.40 (0.34)
Anxiety/depression	3.20 (0.34)	4.67 (0.57)
Somatic complaints	0.94 (0.19)	1.58 (0.30) +
Delinquency	4.06 (0.34)	6.97 (0.56)*** +
Aggression	6.43 (0.52)	10.37 (0.86)***

Note. Standard errors are in parentheses.

+ means that the group average exceeds the average score for both boys and girls in the referred sample reported by Achenbach (1991). ++ means that the group average exceeds the average referred sample score for girls only. +++ means that the group average exceeds the average referred sample for boys only.

*** $p < .001$.

A significant multivariate interaction between gender and relational aggression was revealed, $F(3, 210) = 2.88$, $p < .05$, $\eta^2 = 0.04$, post-hoc tests revealed that relationally aggressive boys ($M = 4.23$; $SE = 0.53$) in third grade were more likely than relationally aggressive girls ($M = 2.66$; $SE = 0.43$), nonrelationally aggressive boys ($M = 2.25$, $SE = 0.28$), and nonrelationally aggressive girls ($M = 2.54$, $SE = 0.31$) to display withdrawn behavior in fourth grade, controlling for physical aggression.

Externalizing Problems

A multivariate effect for gender was found, $F(2, 215) = 12.66$, $p < .001$, $\eta^2 = 0.11$. Follow-up univariate tests were significant for aggression at Time 2, $F(1, 216) = 5.34$, $p < .05$, $\eta^2 = 0.02$ and for delinquency at Time 2, $F(1, 216) = 16.38$, $p < .001$, $\eta^2 = 0.07$. Males ($M = 9.58$; $SE = 0.76$) displayed more aggressive behavior than females ($M = 7.22$; $SE = 0.65$), controlling for physical aggression. In addition, males ($M = 6.85$; $SE = 0.49$) displayed more delinquent behavior than females ($M = 4.18$; $SE = 0.42$), controlling for physical aggression.

A multivariate main effect for relational aggression status was significant, $F(2, 215) = 9.40$, $p < .001$, $\eta^2 = 0.08$. Follow-up univariate tests were significant for both aggression at Time 2, $F(1, 216) = 14.45$, $p < .001$, $\eta^2 = 0.06$ and delinquency at Time 2, $F(1, 216) = 18.83$, $p < .001$, $\eta^2 = 0.08$. An inspection of the means indicates that controlling for physical aggression, relationally aggressive children in third grade are more likely than nonrelationally aggressive children to display both aggression and delinquency in fourth grade.

Finally, a multivariate interaction was revealed for gender and relational aggression status and qualifies the aforementioned main effect findings, $F(2, 215) = 4.78$, $p < .01$, $\eta^2 = 0.04$. The follow-up univariate tests indicated that the interaction was significant only for delinquent behavior at Time 2, $F(1, 216) = 5.07$, $p < .05$, $\eta^2 = 0.05$, post-hoc tests revealed that relationally aggressive boys ($M = 9.01$; $SE = 0.86$) in third grade were more likely than relationally aggressive girls ($M = 4.93$; $SE = 0.69$), nonrelationally aggressive boys ($M = 4.69$; $SE = 0.46$), and nonrelationally aggressive girls ($M = 4.93$; $SE = 0.69$) to display delinquent behavior in fourth grade, controlling for physical aggression.

Stability of Aggression

To evaluate the stability of aggression from third to fourth grade, the reporting samples were used to compute correlations for Time 1 and Time 2 peer report assessments and these analyses were conducted separately for each gender. For boys, moderate levels of stability were revealed for physical and relational aggression, $r_s = .63$, $p < .001$ and $.55$, $p < .001$, respectively. For girls, moderate stability correlations were revealed for physical and relational aggression, $r_s = .47$, $p < .001$ and $.54$, $p < .001$, respectively.

DISCUSSION

Findings indicate that, similar to physical aggression, relational aggression is an important indicator of children's risk for future social-psychological adjustment problems. Additionally, the combination of relational and physical aggression appears to be a particularly potent risk factor for adjustment difficulties. Further, findings reveal that relational aggression provides significant and unique information about children's risk status that is overlooked when assessments of aggressive behavior are limited to physical aggression. Taken together, these results extend existing knowledge by demonstrating the utility of relational aggression for identifying children at risk for future externalizing and internalizing adjustment problems (only future peer status has been studied in prior research; Cillessen & Mayeux, 2004; Crick, 1996). They also add to previous studies of physical aggression by further documenting that the association between physical aggression and future maladjustment is apparent for girls as well as for boys.

Although the obtained findings regarding the association between aggression and social-psychological adjustment are applicable for both boys and girls, they have particular import for girls. Results of this investigation provide significant evidence to counter the prevailing theoretical and conceptual perspective of girls as experiencing "benign childhoods" (Zahn-Waxler, 1993). Girls have often been viewed as relatively lacking in serious psychopathology during the early and middle childhood periods (i.e., prior to adolescence; e.g., Keenan & Shaw, 1997; Moffitt & Caspi, 2001; Silverthorn & Frick, 1999). Further, even when girls' childhood problems have been acknowledged, they have typically been considered to be limited to internalizing difficulties (e.g., Keenan & Shaw, 1997). The findings reported here support the tenet that, similar to boys, girls *do* experience significant adjustment difficulties during childhood, problems that have been

overlooked due to a failure to define and assess adjustment problems that are most salient for girls. Additionally, the present results demonstrate that the difficulties experienced by girls during childhood are more likely than previously believed to be externalizing in nature (i.e., behaviors that are self-serving, directed outward, and intended to harm others; Zahn-Waxler, Klimes-Dougan, & Slattery, 2000). This presents a different view of young girls than that painted in current theories of gender and psychopathology (e.g., Keenan & Shaw, 1997; Silverthorn & Frick, 1999) and suggests that these theories may be in need of revision (see Crick & Zahn-Waxler, 2003).

In addition to their implications for theoretical views of children's adjustment problems, the present findings also have important significance for intervention and prevention efforts. Treatment programs for reducing childhood aggressive behavior problems have traditionally focused primarily on physical aggression and boys (for an exception, see Leff, Costigan, Eiraldi, & Power, 2001). The present findings suggest that a broader approach may be warranted, specifically one that takes into account relational forms of aggression, and that is more inclusive of aggressive girls, in general. However, prior to implementation of this idea, additional research is needed that explores whether current intervention and prevention programs are relevant and effective for girls and for relational forms of aggression.

Present findings indicate that children who exhibit co-morbid relationally and physically aggressive behavior patterns are at increased risk for adjustment problems, even relative to their aggressive peers who exhibit only one of these forms of aggression. This pattern was obtained for internalizing as well as externalizing difficulties. Although significant co-morbidity between physical aggression and internalizing problems and between physical aggression and externalizing difficulties has been well documented in past research (for reviews, see Coie & Dodge, 1998; Compas & Hammen, 1994; Kovacs & Devlin, 1998; Nottlemann & Jensen, 1995), previous studies have not included assessments of relational aggression (for an exception, see Crick, 1997). Thus, unlike the present study, they have not evaluated the relative contribution of each form of aggression or of the combination of the two forms for the prediction of internalizing and externalizing problems. Although additional, long-term longitudinal studies are needed before firm conclusions can be drawn, our findings are consistent with the hypothesis that physically aggressive children who also exhibit relatively high levels of relational aggression are especially vulnerable to concurrent and future socio-emotional problems and should be a continued focus of future research.

Finally, the obtained results provide some support for a link between engagement in gender nonnormative forms of aggression and psychopathology by demonstrating that relationally aggressive boys are more at risk for future adjustment problems than relationally aggressive girls and non-aggressive boys and girls (although relationally aggressive girls are more at risk than non-aggressive children). It has been proposed that gender atypical behavior is likely to incur more sanctions and other negative reactions from peers and adults than behavior that is extreme in frequency or intensity but gender normative (Crick & Dodge, 1994). This may result in relatively greater adjustment difficulties for children who engage in gender atypical behavior (see Crick, 1997; Henington, Hughes, Cavell, & Thompson, 1998 for findings that support this hypothesis). However, it is important to keep in mind that, at least for the present sample, results that support these ideas were limited in scope and were not obtained in all analyses. Further, in contrast to some past studies (e.g., Crick, 1997), the present results did not support the gender nonnormative hypothesis for physically aggressive girls.

A number of avenues for future research are suggested by the present investigation. For example, future prospective studies with longer intervals are needed, particularly those that span more than one developmental period. Such research would provide a more conservative test of the usefulness of relational aggression for identifying children at risk and would increase our understanding of the adjustment trajectories of relationally aggressive children across development (e.g., middle childhood vs. adolescence). Greater attention is also needed in future studies to an even broader assessment of potential adjustment outcomes than that employed here. In particular, aspects of psychopathology that are known to be particularly relevant for girls should be included to increase our understanding of the consequences of aggressive behavior for females (Crick & Zahn-Waxler, 2003). For example, in a prior study, we found that relational aggression was significantly associated with borderline personality features for young adults (borderline personality problems have been shown to be more prevalent among females than males but are rarely assessed in studies of aggression; Werner & Crick, 1999). Study of this and other aspects of psychopathology (e.g., eating disorders) may shed new light on the risk status of aggressive children, particularly girls. The inclusion of other types of risk status indicators also seems warranted in future studies, for example, academic success, work performance, substance use, or the ability to initiate and maintain close, dyadic relationships (e.g., friendships, romantic relationships). Finally, prospective study of individuals of younger (e.g., preschoolers) and older ages (e.g., adolescents, adults) than those targeted

here is also needed to evaluate whether relational aggression is associated with maladjustment across the life-span or is limited to particular developmental periods.

In sum, the present investigation contributes to a much larger effort in the field to understand better the behavioral problems experienced by children in their daily lives and the possible implications of those problems for future development. It also brings greater gender balance to the study of aggressive behavior than has been achieved in many past studies and highlights the importance of such an approach.

ACKNOWLEDGMENTS

Portions of this study were presented at the biennial meeting of the Society for Research in Child Development, Albuquerque, NM. This research was supported by grants to the first author from the William T. Grant Foundation, the National Institute of Mental Health, and the National Science Foundation and by an Eva O. Miller fellowship to the second author. Special thanks to the staff and participants of Project KIDS, particularly Crystal Cullerton-Sen, for assistance with the conduct of this investigation.

REFERENCES

- Achenbach, T. M. (1991). *Manual for the Teacher's Report Forms and 1991 Profile*. Burlington, Vermont: University of Vermont Department of Psychiatry.
- Bardone, A. M., Moffitt, T. E., Caspi, A., Dickson, N., & Silva, P. A. (1996). Adult mental health and social outcomes of adolescent girls with depression and conduct disorder. *Development and Psychopathology, 8*, 811–829.
- Bjorkqvist, K., Lagerspetz, K. M. J., & Kaukianen, A. (1992). Do girls manipulate and boys fight? Development trends in regard to direct and indirect aggression. *Aggressive Behavior, 18*, 117–127.
- Cairns, R. B., Cairns, B. D., Neckerman, H. J., Ferguson, L. L., & Garipey, J. L. (1989). Growth and aggression: 1. Childhood to early adolescence. *Developmental Psychology, 25*, 320–330.
- Cillessen, A. H. N., & Mayeux, L. (2004). From censure to reinforcement: Developmental changes in the association between aggression and social status. *Child Development, 75*, 147–163.
- Cohen, J. (1988). *Statistical Power Analyses for the Behavioral Sciences*. Hillsdale, NJ: Erlbaum.
- Coie, J. D., & Dodge, K. A. (1998). The development of aggression and antisocial behavior. In W. Damon (Editor-in-Chief) & N. Eisenberg (Vol. Ed.), *Handbook of Child Psychology, 5th ed., Vol. 3: Social, emotional, and personality development*. New York: Wiley.
- Compas, B. E., & Hammen, C. L. (1994). Child and adolescent depression: Covariation and co-morbidity in development. In R. J. Haggerty, L. R. Sherrod, N. Garnezy, & M. Rutter (Eds.), *Stress, risk, and resilience in children and adolescents: Processes, mechanisms, and interventions* (pp. 225–267). New York: Cambridge University Press.
- Crick, N. R. (1995). Relational aggression: The role of intent attributions, feelings of distress, and provocation type. *Development and Psychopathology, 7*, 313–322.
- Crick, N. R. (1997). Engagement in gender normative versus non-normative forms of aggression: Links to social-psychological adjustment. *Developmental Psychology, 33*, 610–617.
- Crick, N. R. (1996). The role of overt aggression, relational aggression, and prosocial behavior in children's social adjustment. *Child Development, 33*, 610–617.
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information processing mechanisms in children's social adjustment. *Psychological Bulletin, 115*, 74–101.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66*, 710–722.
- Crick, N. R., Grotpeter, J. K., & Bigbee, M. A. (2002). Relationally and physically aggressive children's intent attributions and feelings of distress for relational and instrumental peer conflicts. *Child Development, 73*, 1134–1142.
- Crick, N. R., Werner, N. E., Casas, J. F., O'Brien, K. M., Nelson, D. A., Grotpeter, J. K., et al. (1999). Childhood aggression and gender: A new look at an old problem. In D. Bernstein (Ed.), *Nebraska symposium on motivation*. Lincoln: The University of Nebraska Press.
- Crick, N. R., & Zahn-Waxler, C. (2003). The development of psychopathology in females and males: Current progress and future challenges. *Development and Psychopathology, 15*, 719–742.
- Egger, H. L., Costello, J., Erkanli, A., & Angold, A. (1999). Somatic complaints and psychopathology in children and adolescents: Stomach aches, musculoskeletal pains, and headaches. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*, 852–860.
- Foster, S. L. (in press). Aggression and antisocial behavior. To appear in D. J. Bell, S. L. Foster, & E. J. Mash (Eds.), *Behavioral and emotional problems in girls*. Kluwer.
- Giordano, P. C., & Cernkovich, S. A. (1997). Gender and antisocial behavior. In D. M. Stoff, J. Breiling, & J. D. Maser (Eds.), *Handbook of antisocial behavior*. New York: Wiley.
- Grotpeter, J. K., & Crick, N. R. (1996). Relational aggression, overt aggression, and friendship. *Child Development, 67*, 2328–2338.
- Henington, C., Hughes, J. N., Cavell, T. A., & Thompson, B. (1998). The role of relational aggression in identifying aggressive boys and girls. *Journal of School Psychology, 36*, 457–477.
- Kashani, J. H., Cantwell, D. P., Shekim, W. O., & Reid, J. (1982). Major depressive disorder in children admitted to an inpatient community mental health center. *American Journal of Psychiatry, 139*, 671–672.
- Keenan, K., & Shaw, D. (1997). Developmental and social influences on young girls' early problem. *Psychological Bulletin, 121*, 95–113.
- Kovacs, M., & Devlin, B. (1998). Internalizing disorders in childhood. *Journal of Child Psychology and Psychiatry, 39*, 47–63.
- Leadbeater, B. J., Kuperminc, G. P., Blatt, S., & Hertzog, C. (1999). A multivariate model of gender differences in adolescents' internalizing and externalizing problems. *Developmental Psychology, 35*, 1268–1282.
- Leff, S., Costigan, T. E., Eiraldi, R., & Power, T. J. (2001). An examination of children's aggressive behaviors and social skills as a function of ADHD subtype and gender. Poster presented at the biennial meeting of the Society of Research in Child Development, Minneapolis, MN.
- McNeilly-Choque, M., Hart, C. H., Robinson, C. C., Nelson, L. J., & Olsen, S. F. (1996). Overt and relational aggression on the playground: Correspondence among different informants. *Journal of Research in Childhood Education, 11*, 47–67.
- Moffitt, T. E., & Caspi, A. (2001). Childhood predictors differentiate life-course persistent and adolescent-limited pathways among males and females. *Development and Psychopathology, 13*, 355–375.
- Nottlemann, E. D., & Jensen, P. S. (1995). Co-morbidity of disorders in children and adolescents: Developmental perspectives. In T. H. Ollendick, & R. J. Prinz (Eds.), *Advances in clinical child psychology* (Vol. 17, pp. 109–155). New York: Plenum Press.

- Ostrov, J. M., & Keating, C. F. (2004). Gender differences in preschool aggression during free play and structured interactions: An observational study. *Social Development, 13*, 255–277.
- Prinstein, M. J., Boergers, J., & Vernberg, E. (2001). Overt and relational aggression in adolescents: Social-psychological adjustment of aggressors and victims. *Journal of Clinical Child Psychology, 30*, 479–491.
- Robins, L. (1986). The consequences of conduct disorder in girls. In D. Olweus, J. Block, & M. Radke-Yarrow (Eds.), *Development of antisocial and prosocial behavior: Research, theories, and issues*. New York: Academic Press.
- Rudolph, K. D., & Hammen, C. (1999). Age and gender as determinants of stress exposure, generation, and reactions in youngsters: A transactional perspective. *Child Development, 70*, 660–677.
- Serbin, L. A., Peters, P. L., & Schwartzman, A. E. (1996). Longitudinal study of early childhood injuries and acute illness in the offspring of adolescent mothers who were aggressive, withdrawn, or aggressive-withdrawn in childhood. *Journal of Abnormal Psychology, 105*, 500–507.
- Silverthorn, P., & Frick, P. J. (1999). Developmental pathways to anti-social behavior: The delayed-onset pathway in girls. *Development and Psychopathology, 11*, 101–126.
- Tomada, G., & Schneider, B. (1997). Relational aggression, gender, and peer acceptance: Invariance among informants. *Developmental Psychology, 33*, 601–609.
- Werner, N. E., & Crick, N. R. (1999). Relational aggression and social-psychological adjustment in a college sample. *Journal of Abnormal Psychology, 108*, 615–623.
- Zahn-Waxler, C. (1993). Warriors and worriers: Gender and psychopathology. *Development and Psychopathology, 5*, 79–89.
- Zahn-Waxler, C. (2000). The development of empathy, guilt, and internalization of distress. In R. Davidson (Ed.), *Wisconsin Symposium on Emotion: Vol. 1. Anxiety, depression, and emotion* (pp. 222–265). New York: Oxford University Press.
- Zahn-Waxler, C., Klimes-Dougan, B., & Slattery, M. J. (2000). Internalizing problems of childhood and adolescence: Prospects, pitfalls, and progress in understanding the development of anxiety and depression. *Development and Psychopathology, 12*, 443–466.