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Relational Benefits of Relational Aggression: Adaptive and Maladaptive Associations With Adolescent Friendship Quality

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Abstract

Two longitudinal studies examined associations between relational aggression and friendship quality during adolescence. In Study 1, 62 adolescents in Grades 6 (25.8%), 7 (32.3%), and 8 (41.9%) completed assessments of friendship affiliations, relational and overt aggression, and friendship quality at 2 time points, 1 year apart. Results using actor partner interdependence modeling indicated that high levels of relational aggression predicted increases in self-reported positive friendship quality 1 year later. In Study 2, 56 adolescents in Grades 9 (66.7%) and 10 (33.3%) attended a laboratory session with a friend in which their conversations were videotaped and coded for relationally aggressive talk. Target adolescents completed measures of positive and negative friendship quality during the laboratory session and during a follow-up phone call 6 months later. Analyses revealed that high levels of relationally aggressive talk at Time 1 predicted increases in negative friendship quality 6 months later. In addition, among adolescents involved in a reciprocal best friendship, high levels of observed relationally aggressive talk predicted increases in positive friendship quality over time. Taken together, these studies provide support for the idea that relational aggression may be associated with adaptive as well as maladaptive outcomes within the dyadic context of adolescent friendship.

Keywords

relational aggression; friendship quality; adolescence

Relational aggression describes nonphysical behaviors that are intended to damage peer relationships and social status (Crick & Grotpeter, 1995). Research on relational aggression largely has focused on maladaptive functions and associated negative outcomes; however, an emerging line of research suggests that relational aggression may serve a variety of adaptive

functions beyond the intent to harm (see Heilbron & Prinstein, 2008, for a review). In terms of adjustment at the dyadic level, previous research has established that children who engage in relationally aggressive behavior do indeed have friends (Burr, Ostrov, Jansen, Cullerton-Sen, & Crick, 2005; Grotzinger & Crick, 1996; Rys & Bear, 1997). However, there remains a paucity of information about how relational aggression affects the quality of these relationships. It is especially important to address this issue, as friendship quality may be a stronger indicator of psychological outcomes than the mere quantity of friends (Hartup, 1996).

Preliminary research by Grotzinger and Crick (1996) revealed the dual nature of relational aggression in its associations with friendship quality. This study found that friends may be relationally aggressive toward a third party but that relational aggression can also occur within the friendship dyad. In addition, relational aggression was associated with higher levels of friendship conflict. On the other hand, relational aggression was also associated with friendship intimacy. Moreover, children who engaged in high levels of relational aggression reported levels of validation, caring, companionship, and recreation that were comparable to the reports of their peers who engaged in lower levels of relational aggression. Subsequent research has continued to yield mixed findings regarding relational aggression and friendship adjustment (e.g., Cillessen, Jiang, West, & Laszkowski, 2005; Hawley, Little, & Card, 2007; McDonald, Putallaz, Grimes, Kupersmidt, & Coie, 2007; Murray-Close, Ostrov, & Crick, 2007; Parker, Low, Walker, & Gamm, 2005; Rose, Swenson, & Carlson, 2004; Soenens, Vansteenkiste, Goossens, Duriez, & Niemiec, 2008). Furthermore, the existing body of research is limited by its focus on early to middle childhood (Crick et al., 1999) and its reliance on concurrent data. No research to date has prospectively examined relational aggression and friendship quality among adolescents. This reflects a tremendous oversight, given evidence of an increase in relationally aggressive behavior (Björkqvist, Lagerspetz, & Kaukiainen, 1992; Murray-Close et al., 2007; Murray-Close & Ostrov, 2009; Underwood, Beron, & Rosen, 2009), as well as a greater emphasis on intimate dyadic relationships during this developmental period (Buhrmester, 1990; Buhrmester, 1996; Buhrmester & Furman, 1987; Bukowski, Hoza, & Boivin, 1993; McNelles & Connolly, 1999; Sullivan, 1953). Accordingly, the current article presents two longitudinal studies that extend this research by exploring both positive and negative outcomes associated with relational aggression in the development of adolescent friendship quality. It should be noted that, for the purpose of the current article, references to relational, social, and indirect aggression are referred to as “relational aggression.” Despite important distinctions, the overlap between these constructs is more significant than their differences (see Heilbron & Prinstein, 2008, for further discussion).

Adaptive and Maladaptive Correlates

To date, relational aggression generally has been conceptualized as a maladaptive behavior with psychopathological correlates. Indeed, much documentation supports the view that aggressive behaviors are associated with maladjustment. Relational aggression has been linked to a host of concurrent internalizing and externalizing difficulties, including anxiety (Marsee, Weems, & Taylor, 2008; Storch, Bagner, Geffken, & Baumeister, 2004), depressive symptoms (Crick & Grotzinger, 1995; Zimmer-Gembeck, Hunter, & Pronk, 2007), borderline

personality features (Ostrov & Houston, 2008; Werner & Crick, 1999), disruptive behavior disorders (Keenan, Coyne, & Lahey, 2008; Ohan & Johnston, 2005; Zalecki & Hinshaw, 2004), eating pathology (Werner & Crick, 1999), and other personality pathology (e.g., callous-unemotional traits, psychopathy) (Marsee & Frick, 2007; Miller & Lynam, 2003). Longitudinal studies corroborate concurrent investigations, revealing associations between relational aggression and increases in depressive symptoms (Crick, Ostrov, & Werner, 2006; Ellis, Crooks, & Wolfe, 2009; Murray-Close et al., 2007), anxiety and somatic complaints (Crick et al., 2006; Ellis et al., 2009), borderline personality features (Crick, Murray-Close, & Woods, 2005), and delinquency (Crick et al., 2006; Ellis et al., 2009). In terms of social adjustment, relational aggression is associated with lower social preference (Cillessen & Borch, 2006; Cillessen & Mayeux, 2004; LaFontana & Cillessen, 2002; Vaillancourt & Hymel, 2006; Zimmer-Gembeck, Geiger, & Crick, 2005), peer rejection (Crick, 1996; Crick & Grotpeter, 1995; Murray-Close & Crick, 2006; Rys & Bear, 1997; Ostrov & Crick, 2007; Werner & Crick, 2004), and lower prosocial behavior (Leadbeater, Boone, Sangster, & Mathieson, 2006; Zimmer-Gembeck et al., 2007).

This line of research has been informative in demonstrating associations with markers of maladjustment; however, research that addresses relational aggression from a multiple levels of analysis approach reveals that the outcomes associated with this behavior depend on a host of child characteristics, as well as the broader social and developmental context in which the behavior is embedded. For example, in a study examining the friendship quality of children and adolescents, Rose, Swenson, and Carlson (2004) found that relational aggression was associated with friendship conflict only among those who were disliked by their peers but not for children who were perceived as popular. In another study, perceived popularity buffered adolescents who engaged in relational aggression against the internalizing symptoms that have been reported to be associated with this behavior (Rose & Swenson, 2009). Studies of relational aggression in particular developmental contexts have shown that associations between relational aggression and perceived popularity increase with age (LaFontana & Cillessen, 2002; Rose, Swenson, & Waller, 2004). Similarly, Smith, Rose, and Schwartz-Mette (2010) found that, among adolescent girls, relational aggression was associated with greater peer acceptance by boys; however, this association was not true for younger children. These findings suggest that relational aggression may become more socially valued and acceptable as children progress from early childhood to adolescence. Other research findings that challenge the negative conceptualization of relational aggression include associations with higher levels of network centrality (Xie, Swift, Cairns, & Cairns, 2002), higher social acceptance, and lower social rejection (Salmivalli, Kaukiainen, & Lagerspetz, 2000), in addition to null findings regarding associations with maladaptation (e.g., Xie et al., 2002).

Dynamic associations such as those discussed above suggest that relational aggression may not be a deterministic risk factor for maladaptive outcomes. Rather, relational aggression appears to probabilistically place children on various developmental pathways. A developmental psychopathology framework, with its foundations in understanding normative behavior as a means of understanding deviant behavior, should guide our research on relational aggression (Cicchetti, 1984; Sroufe, 1990; Sroufe & Rutter, 1984). Research consistent with this approach will advance understanding of when relationally aggressive

behaviors reflect normative adaptation and when they represent markers of maladaptation and adjustment difficulties. The current article explores this idea as it applies to the role of relational aggression in the development of adolescent friendship quality.

Aggression and Friendship Quality

Researchers traditionally have made a clear distinction between positive and negative friendship quality, with positive friendship quality characterized by features such as intimacy and support and negative friendship quality characterized by conflict, criticism, and dominance (Berndt, 2002). Accordingly, friendships have been characterized as rich in quality when they are high on positive dimensions (Berndt, 2002). However, Hawley et al. (2007) argued that this demarcation between positive and negative indicators of friendship quality may be an oversimplification. Instead, Hawley et al. (2007) suggested that some friendships may be high on both dimensions of friendship quality and that children may even be attracted to dominant and aggressive children because of the social benefits that they confer. Existing research supports this idea, as relational aggression has been associated with high levels of both positive and negative indicators of friendship quality (Cillessen et al., 2005; Grotzinger & Crick, 1996; Hawley et al., 2007; McDonald et al., 2007; Murray-Close et al., 2007; Parker et al., 2005; Rose, Swenson, & Carlson, 2004). This pattern reflects a contrast with physical aggression, which is generally associated with friendship difficulties (Cillessen et al., 2005; Dishion, Andrews, & Crosby, 1995; Ellis & Zarbatany, 2007; Grotzinger & Crick, 1996; Rose, Swenson, & Carlson, 2004; Rys & Bear, 1997). In studies comparing the impact of relational and physical forms of aggression on friendship adjustment, differential outcomes typically emerge, supporting the assertion that these are distinct constructs that make unique contributions to social and psychological adjustment (Cillessen et al., 2005; Ellis & Zarbatany, 2007; Grotzinger & Crick, 1996; Hawley et al., 2007; Rose, Swenson, & Carlson, 2004; Rys & Bear, 1997).

Intimacy reflects one aspect of positive friendship quality that is associated with high levels of relational aggression (Grotzinger & Crick, 1996; Hawley et al., 2007; Murray-Close et al., 2007; Rose, Swenson, & Carlson, 2004). This association has been revealed in a number of concurrent studies (Grotzinger & Crick, 1996; Hawley et al., 2007; Rose, Swenson, & Carlson, 2004) and in one longitudinal study (Murray-Close et al., 2007). In further corroboration of these self-reports of intimacy, associations between negative gossip and closeness have been noted observationally (McDonald et al., 2007).

Several processes may account for relational aggression's association with intimacy. Given that negative evaluation gossip is considered to be a relationally aggressive behavior (Crick et al., 2001), it may be helpful to apply mechanisms suggested in the gossip literature to our understanding of relational aggression. Theory suggests that negative gossip may foster intimacy through the sharing of private information (McDonald et al., 2007). By disclosing sensitive and evaluative information about other peers, the speaker communicates to the listener that he or she is trusted and is part of a select group that has knowledge of valued information (Foster, 2004; McDonald et al., 2007). In addition, sharing risky opinions could heighten feelings of vulnerability in the speaker, especially if it is uncertain whether his or her conversational partner will agree. Validation of malicious gossip by a friend, therefore,

may serve to establish knowledge of shared opinions, which in turn may enhance feelings of solidarity and encourage future self-disclosure (Gottman & Mettetal, 1986). The interpersonal processes afforded by negative gossip may be especially salient during adolescence, when establishing intimate relationships becomes increasingly important for healthy socioemotional functioning (Buhrmester, 1990). Relationally aggressive behavior may reflect one adaptational process by which adolescents effectively achieve the developmental task of establishing close, dyadic friendships.

In a similar vein, relationally aggressive behaviors, such as exclusion and rumor spreading, may confirm group belongingness and a sense of alliance between friends (Gottman & Mettetal, 1986; Owens, Shute, & Slee, 2000; Underwood, 2003). Researchers have noted the collaborative nature of relational aggression, suggesting that coalitions may be strengthened when two friends relationally aggress against a third peer (Cillessen et al., 2005; Grotperter & Crick, 1996). Girls in a qualitative investigation by Owens et al. (2000) supported this idea. When asked why they engaged in relational aggression, girls explicitly stated that they employ these behaviors as a means of maintaining close friendships (Owens et al., 2000).

Despite associations with positive indicators of friendship quality, high levels of relational aggression have also been linked to negative aspects of friendship quality (Cillessen et al., 2005; Grotperter & Crick, 1996; Hawley et al., 2007; Parker et al., 2005; Rose, Swenson, & Carlson, 2004; Sebanc, 2003). Relational aggression has been concurrently associated with friendship conflict (Cillessen et al., 2005; Hawley et al., 2007; Rose, Swenson, & Carlson, 2004; Sebanc, 2003) and relationship qualities such as exclusivity (Grotperter & Crick, 1996; Sebanc, 2003) and jealousy (Parker et al., 2005). It is possible that negative and positive friendship qualities coexist. In particular, high levels of intimacy could contribute to negative dimensions of quality. Potential compromises to exclusivity may be especially threatening if children believe their friends will divulge private information (Underwood, 2003). This fear may be the source of conflict and criticism experienced within friendships. In fact, adolescents report that their conflicts with friends most often concern relationship issues such as intimacy (Adams & Laursen, 2001).

Study 1

Study 1 was designed to investigate the theory that participating in relationally aggressive behavior may be associated with both adaptive and maladaptive outcomes. Using the actor partner interdependence model (APIM; Cook & Kenny, 2005) for the analysis of dyadic data, we examined longitudinal associations between relational aggression and friendship quality within stable, reciprocal best friendships. Building upon research indicating associations between relational aggression and friendship intimacy, it was hypothesized that adolescents' peer-reported relational aggression would predict increases in their self-reported perceptions of positive friendship quality over time. In addition, it was expected that adolescents' relationally aggressive behavior would predict increases in their friend's reports of positive friendship quality. In keeping with the "double-edged sword" characterization of relational aggression (Cillessen et al., 2005), negative friendship quality also was examined. It was hypothesized that adolescents' relational aggression would

predict increases in their own and in their friend's reports of negative friendship quality over time.

Previous research has reported significant intercorrelations between relational and overt aggression (e.g., $r = .54$, Crick & Grotpeter, 1995; $r = .63$, Crick, 1996). Little et al. (2003) reported that correlation coefficients typically fall within the $r = .5-.7$ range, and a meta-analysis by Card et al. (2008) found that the average corrected correlation was .76. Given the magnitude of these correlations, this study included data on both forms. In addition, both forms of aggression are included in the analytic model, such that testing for the effects of one form of aggression controls for the effects of the alternate form of aggression. Consistent with previous research linking overt aggression with friendship difficulties (Cillessen et al., 2005; Grotpeter & Crick, 1996; Rose, Swenson, & Carlson, 2004), it was hypothesized that overt aggression would be negatively associated with positive friendship quality and positively associated with negative friendship quality.

With respect to gender differences in the associations between relational aggression and friendship variables, it was expected that gender would act as a moderator. Specifically, because past research suggested that girls place a greater emphasis on dyadic relationships than do boys and that their friendships are more intense and intimate (Buhrmester, 1990; Buhrmester & Furman, 1987; Maccoby, 1998; Murray-Close et al., 2007; Underwood & Buhrmester, 2007), it was anticipated that the potential friendship benefits of relational aggression would be greater for girls than for boys. Second, girls report feeling more distressed than do boys over instances of relational aggression (Galen & Underwood, 1997; Paquette & Underwood, 1999); therefore, it was expected that associations between relational aggression and negative friendship quality would be stronger for girls than for boys.

Method

Participants—Participants included 62 adolescents (58.1% female), with a mean age of 12.83 years ($SD = 0.85$), who were in Grades 6 (25.8%), 7 (32.3%), and 8 (41.9%) at the onset of the study. The ethnic composition of the sample was 91.9% European American, 6.5% Asian American, and 1.6% mixed ethnicity. Participants were enrolled in a public school within a relatively homogeneous city characterized predominantly by middle-class socioeconomic status. According to neighborhood and school records, average adult per capita income was approximately \$30,220, and 11% of children were eligible for free or reduced-price lunch.

At Time 1, all students in Grades 6–8 were recruited for participation, and consent forms were returned by 92% of families ($n = 784$). Of these families, 80% of parents/legal guardians gave consent for their child's participation ($n = 627$; 74% of the original population). Because some students were absent on one of the days of testing ($n = 10$), provided incomplete data ($n = 15$), or chose not to participate ($n = 4$), the sample was composed of 598 participants at Time 1. A total of 520 students (87%) completed the questionnaires at Time 2 (11 months after Time 1). Attrition resulted from participants moving away from the area, absenteeism, incomplete data, and refusal to continue participation in the study. Inclusion analyses revealed that adolescents who participated at

both time points had lower levels of overt aggression ($M = -.11$, $SD = .82$) and relational aggression ($M = -.07$, $SD = .82$) than adolescents who did not participate at Time 2, overt $M = 0.30$, $SD = 1.20$, $t(596) = 3.89$, $p < .001$, $d = 0.47$; relational $M = 0.21$, $SD = 1.09$, $t(596) = 2.73$, $p < .01$, $d = 0.33$. No significant differences were revealed between the adolescents who participated at both time points and those who only participated at Time 1 on positive and negative friendship quality.

Analyses were limited to only those participants who met several criteria. First, participants were included only if they had selected a best friend who was also a participant in the study, which allowed for a comparison of nominations and coding of friendship reciprocity and stability. A total of 383 participants (75%) at Time 1 and 365 (71%) at Time 2 selected a best friend who was also participating in the study. Chi-square and t test analyses revealed no significant differences on any study variables between adolescents who did versus did not select a participant best friend. Second, adolescents had to be involved in a stable, reciprocated best friendship. Best friendships were considered reciprocated if both adolescents nominated one another as their very best friend. Because all participants completed measures of friendship quality with their very best friend, this restrictive but necessary criterion allowed us to use both self- and friend-reported data as criterion measures predicted by peer-reported aggressive behavior scores. Friendships were considered stable if the very best friend at Time 1 was nominated as the very best friend at Time 2. The final sample included 62 adolescents (i.e., 31 reciprocal, stable same-sex dyads) who satisfied these conditions. Inclusion analyses revealed that adolescents involved in a stable, reciprocal best friendship had lower levels of overt aggression ($M = -.36$, $SD = .15$) and relational aggression ($M = -.30$, $SD = .39$), as well as higher levels of Time 1 positive friendship quality ($M = 3.79$, $SD = 0.84$), compared with adolescents who were not involved in a stable reciprocal best friendship, overt $M = -.06$, $SD = .93$, $t(337) = 2.50$, $p < .05$, $d = -.36$; relational $M = -.03$, $SD = .87$; $t(337) = 2.42$, $p < .05$, $d = -.34$; Time 1 positive friendship quality $M = 3.47$, $SD = 0.86$, $t(330) = -2.66$, $p < .01$, $d = 0.37$. There were no significant differences in negative friendship quality for adolescents who were involved in a stable, reciprocal best friendship compared with adolescents who were not.

Assessment and measures—Participants were administered questionnaire packets at baseline and at a 1-year follow-up (i.e., at Time 1 and Time 2). The packets contained additional measures; however, for the purposes of the present study, only the data from measures of friendship affiliations, sociometric relational and overt aggression, and friendship quality were used in the analyses.

Sociometric assessment of relational and overt aggression—To assess engagement in aggressive behaviors, an unlimited nomination procedure was completed. At the school's request, rosters that included the names of all academic classmates were used. Adolescents at the school were organized in academic teams, and each team was roughly twice the size of a traditional academic classroom. Rosters were counterbalanced such that some participants received rosters with names presented alphabetically and others received rosters presented with names in the order of Z through A. Adolescents were asked to identify peers who exhibited overt and relational forms of aggression. The mean score of

results from two peer nomination items were used to index relational aggression (i.e., “Who ignores classmates or stops talking to them to be mean?” and “Who spreads rumors or gossips about classmates to be mean?” $\alpha = .88$) and overt aggression (i.e., “Who starts fights?” and “Who gets mad and angry easily?” $\alpha = .88$; Asher & Williams, 1987; Coie & Dodge, 1983; Crick & Grotpeter, 1995; Prinstein & Cillessen, 2003). The mean scores for each form of aggression then were standardized within each academic class.

Friendship selection—In a manner consistent with prior research (e.g., Parker & Asher, 1993), a peer-nomination procedure was used to assess adolescents’ participation in best friendships. Adolescents were invited to select an unlimited number of “closest friends” from a roster of all academic teammates alphabetized by first name. From this list of “closest friends,” adolescents were then asked to select a single “very best friend.” The same procedure was repeated 11 months later at Time 2.

Friendship quality—Adolescents completed seven subscales from the Network of Relationships Inventory (NRI; Furman, 1996) to describe the quality of their relationship with the adolescent they selected as a very best friend. Each narrow-band NRI subscale assessed (i.e., companionship, criticism, intimacy, reliable alliance, conflict, emotional support, and dominance; all α s $> .80$) includes three items describing behaviors that occur within the context of the relationship. Adolescents respond to each item using a 5-point Likert-type scale; higher scores indicate higher levels of the friendship quality. Because adolescents in reciprocal best friendships both provided reports of friendship quality on the NRI that pertained to the same relationship, it was possible to use best friends’ reports as a measure of friendship quality that relied on an external informant. Thus, this assessment yielded measures of friend-reported friendship quality and measures of self-reported friendship quality. It should be noted that the NRI is designed such that measures of positive friendship quality reflect dyadic, bilateral qualities of the relationship (e.g., shared intimacy, companionship), whereas several measures of negative friendship quality offer one adolescent’s unilateral opinion of his or her friend’s behavior. For instance, items on the dominance subscale (i.e., “Who takes charge more in the relationship?” “Who is the boss in the relationship?” “Who makes the most decisions?”) use a unique response scale, where 1 = *They almost always do* and 5 = *I almost always do*. Higher scores on the dominance subscale indicate that the respondents believe they are more dominant than their friend.

Analyses of intercorrelations between measures of friendship qualities revealed moderate to strong associations among measures of positive friendship quality (i.e., companionship, intimacy, reliable alliance, emotional support; *Mdn* $r = .46$, $p < .001$) and among measures of negative friendship quality (i.e., criticism, dominance, conflict; *Mdn* $r = .34$, $p < .001$). As would be expected from past research (e.g., Furman, 1996), factor analyses of the individual narrow-band subscales of friendship quality using an oblique rotation revealed identical factor structures at both Time 1 and Time 2 for these two broad-band factors (i.e., positive and negative; all eigenvalues > 1). At each time point, all factor loadings exceeded .70, and no significant cross-loadings ($> .35$) were observed. Broad-band scales were computed as means of the items from narrow-band subscales to create four measures of friend-reported friendship quality (i.e., positive and negative friendship quality at Time 1 and Time 2) and

four corresponding measures of self-reported friendship quality. Extensive psychometric support for the NRI has been provided by Furman (1996) as a reliable and valid measure of friendship quality.

Results

Preliminary analyses—Means and standard deviations for all primary variables are presented in Table 1. Because data were dependent, gender differences were examined within a structural equation modeling (SEM) framework. Specifically, a model was constructed with paths estimated from a single dyad-level binary predictor (i.e., gender) to two exogenous measures representing the outcome variable being tested (one reported by each dyad member). Equality constraints were placed on the regression parameters across members of the dyad, and error terms were allowed to correlate. Each model yielded a regression weight from gender to the outcome variable, and a *z* test reflected the significance of this weight (see Table 1). Results revealed that girls reported higher levels of positive friendship quality at Times 1 and 2. Preliminary analyses also indicated that the variables were not skewed and that transformations were not necessary.

Correlations between variables also were examined in an SEM framework (see Table 2). Each correlation was the standardized covariance estimate from a model that included both members' reports of each variable, with equality constraints on parameters across members. As expected, each Time 1 variable was correlated significantly with its corresponding Time 2 variable. Relational aggression was significantly correlated with overt aggression at Time 1 but not Time 2. Time 2 relational aggression was positively associated with Time 2 positive friendship quality.

Longitudinal prediction of friendship quality by relational and overt aggression—Hypotheses were examined using the APIM (Cook & Kenny, 2005) to account for the dyadic nature of the data. A total of 31 dyads were examined using full information maximum likelihood as implemented in Amos (Version 16.0; Arbuckle, 2006). An initial set of analyses used a multiple group design (by gender; female = 0, male = 1) with systematic fixing of paths for boys and girls and subsequent chi-squared tests to examine possible gender moderation. No evidence for gender moderation was revealed. However, given the limited power to examine these effects, results regarding gender should be interpreted cautiously. All subsequent analyses used a single group design.

Both relational and overt aggression were included in the model as predictors of the broad-band positive and negative friendship quality subscales. Each dyad member was treated as indistinguishable, as both were members of a reciprocated friendship, and neither varied in role (Cillessen et al., 2005; Gonzalez & Griffin, 1999; Peters, Cillessen, Riksen-Walraven, & Haselager, 2010). As suggested by APIM guidelines, an initial step required examination of the interdependence between dyad members, confirming the necessity for a dyadic approach. Results confirmed that for both positive (ICC = .50) and negative (ICC = .29) friendship quality, dyads should be treated as interdependent (Cillessen et al., 2005; Kenny, Kashy, & Cook, 2005).

APIM analyzes longitudinal data at the dyadic level, using scores from both members of the friendship dyad (i.e., Friend 1 and Friend 2) as two separate reporters. Associations between Time 1 and Time 2 scores of a single construct within reporter (i.e., Friend 1 report of positive quality at Time 1 predicting Friend 1 report of positive quality at Time 2) are referred to as actor effects. Associations across reporters are partner effects (Cook & Kenny, 2005). For all analyses reported below in Study 1, the APIM was constructed with six predictors (i.e., both friends' reports of Time 1 positive friendship quality, peer-reported overt aggression for each friend, and peer-reported relational aggression for each friend) and two outcome variables (i.e., both friends' reports of Time 2 friendship quality). For measures in which the data may be treated as if from an indistinguishable dyad, parallel parameter estimates are set to be fixed across both friends. Specifically, the model is considered completely symmetrical; thus, all estimated means, variances, covariances, and path weights pertaining to Friend 1 are set to be fixed with parallel means, variances, covariances, and path weights pertaining to Friend 2. For instance, the path weight between Friend 2 peer-reported relational aggression at Time 1 and Friend 1 reported positive friendship quality at Time 2 is set to be fixed to the path between Friend 1 peer-reported relational aggression at Time 1 and Friend 2 reported positive friendship quality at Time 2 because the two friends are indistinguishable from one another. The APIM model still yields both actor and partner effects. In this study, results indicated whether adolescents' aggressive behavior predicted their own reports of friendship quality (actor), or their friend's reports of friendship quality (partner).

Results for the prediction of positive friendship quality suggested a significant actor effect for relational aggression, suggesting that higher levels of adolescents' relational aggression were associated with increases in their own reports of positive friendship quality over time (see Table 3). No evidence was revealed for partner effects, however. In other words, adolescents' aggressive behavior was not associated significantly with changes in their friend's reports of positive friendship quality over time. Results for the prediction of negative friendship quality revealed no significant effects (see Table 3).¹

Discussion

Results from this study preliminarily supported the central thesis that relational aggression may be associated with adaptive outcomes within the dyadic context of adolescent friendship. Specifically, results revealed a significant actor effect in the prediction of positive friendship quality over time. Controlling for overt aggression, high levels of relational aggression were associated with increases in positive friendship quality. This finding is noteworthy, given that it contradicts the prevalent theory that engaging in relationally aggressive behavior precedes the development of exclusively maladaptive outcomes. However, relational aggression failed to yield a partner effect, meaning that adolescents'

¹At the suggestion of a reviewer, we also considered whether positive or negative friendship quality acted as a longitudinal predictor of either form of aggression. APIM analyses parallel to those described above were conducted; results revealed no significant effects of either positive or negative friendship quality as a longitudinal predictor of either overt or relational aggression. This may offer some support for the general hypothesis that aggressive behavior may precede and perhaps contribute to changes in friendship quality, but not vice versa.

relational aggression was not longitudinally associated with increases in their friend's reports of positive friendship quality.

It should be noted that these analyses were conducted in a sample of adolescents involved in stable, reciprocated best friendships, a subsample with lower levels of aggression than in the larger sample. Thus, analyses suggest that relational aggression predicts increases in positive friendship quality only among those in stable, reciprocated best friendships. Regression analyses were conducted to ensure that relational aggression did not contribute to instability. Analyses revealed no effect of relational aggression on stability, suggesting that relational aggression did not predict friendship dissolution.² It also should be noted that analyses were conducted in a relatively small sample, thus limiting statistical power. Replication of these results is needed.

Study 2

Study 2 explores the association between relational aggression and friendship quality using observational methods to assess the construct of relationally aggressive talk. This construct refers to behavior that includes negative evaluation gossip, as well as active attempts to manipulate the relationship between a conversational partner and an absent third party. This methodology provides insight into a specific behavior between friends that may not be observed by the larger peer group and therefore may be underestimated in sociometric nominations of relational aggression. Given that relationally aggressive talk typically consists of private and sensitive information, more relationally aggressive talk may be observed within the intimate context of the dyad as opposed to the public peer group. Although it has been argued that observing relational aggression in a laboratory setting may be extremely difficult given its subtle nature, research has demonstrated that it is possible to observe and reliably code relationally aggressive behaviors (Galen & Underwood, 1997). Despite these advantages, there remains a paucity of research studies that examine relational aggression observationally (Card et al., 2008).

Study 2 explored three hypotheses regarding the role of relational aggression in the development of adolescent friendship quality. Similar to Study 1, it was hypothesized that observed relationally aggressive talk would predict increases in self-reported positive friendship quality. In addition, was hypothesized that observed relationally aggressive talk also would predict increases in self-reported negative friendship quality.

A third hypothesis examined the unique developmental context of reciprocal best friendship in the prediction of adolescent friendship quality. Research suggests that friendship may be conceptualized as a multidimensional construct including different types of relationships that vary along dimensions of knowledge and liking (Hundley & Cohen, 1999; Ladd & Emerson, 1984; Newcomb & Bagwell, 1995). Children who nominate each other as "best friends" report higher positive friendship quality than do mutually nominated "friends" (Cleary, Ray,

²It was helpfully noted by reviewers that the relatively higher levels of relational aggression among adolescents not involved in stable, reciprocated best friendships could be interpreted as evidence against our central hypothesis regarding the adaptive relational benefits associated with relational aggression. A logistic regression analysis was conducted to examine whether relational aggression may indeed be a predictor of friendship termination between Time 1 and Time 2. After controlling for gender and friendship quality (positive and negative) as predictors, there was no significant association between relational aggression and friendship stability.

LoBello, & Zachar, 2002). Children rate their reciprocal best friends higher than their reciprocal friends on dimensions of caring, companionship, intimacy, and exclusivity (Cleary et al., 2002). Because mutual best friendships are intimate in nature and are characterized by a high degree of shared knowledge, these relationships may be an especially safe environment for children to engage in relationally aggressive talk. Therefore, it was hypothesized that associations between relationally aggressive talk and positive and negative friendship quality would be moderated by friendship reciprocity status, such that these associations would be stronger for adolescents who mutually nominate each other as “best friends.”

Method

Participants—Participants included 56 target adolescents (46.6% female) who were in Grades 9 (66.7%) and 10 (33.3%). The ethnic composition of the sample was 71.5% European American, 10.7% African American, 3.6% Asian American, 7.1% Latino American, and 7.1% mixed ethnicity. Participants were recruited from middle-class rural and suburban communities. Each target adolescent invited a same-sex friend to the observational segment of the study, resulting in 56 dyadic interactions.

Participants were recruited from a local school system by requesting consent to contact parents/legal guardians with information regarding a study on adolescent friendships. A total of 245 students returned consent to contact forms, and 222 of these students had parents/legal guardians who provided consent to contact their families to schedule appointments. Students were randomly selected and contacted. At the time funding for the project elapsed, a total of 114 had been contacted, and 97 indicated a desire to participate in the study. However, 17 could not be scheduled for a lab visit. Of the remaining 80 adolescents who participated in the study, 63 completed data collection at two time points. At Time 2, seven participants reported on friendship quality with a different friend than they reported on at Time 1, and were therefore not included in the analyses. This resulted in a final sample of 56 target adolescents.

Assessment and measures—Adolescents attended a laboratory session with their parent and a friend. Consent was obtained from both the parent attending the lab visit, as well as from the parent whose adolescent son or daughter participated as the friend. In addition, written assent to participate was obtained from each adolescent. Adolescents completed a questionnaire segment and an observational segment. In addition to the laboratory session, target adolescents participated in a follow-up phone call 6 months later.

During the observational segment, each pair of friends was videotaped in a laboratory setting for approximately 45 min. Dyads were provided with a variety of discussion prompts, which asked them to (a) plan a party, (b) discuss a current problem of the target adolescent, (c) discuss a current problem identified by the friend, (d) discuss a source of disagreement between them, (e) talk about their peer group, (6) have the target adolescent give a speech, and (7) respond to a series of questions about the quality of the speech. For each session, the two friends were left in the room by themselves for approximately 5 min, and their conversations were videotaped.

Self-reported positive and negative friendship quality—Target adolescents privately completed the NRI (Furman, 1996) during the laboratory session and during a follow-up phone call conducted 6 months later. At both time points, adolescents reported on the quality of their relationship with the friend who had participated in the laboratory session. Both positive and negative broad-band friendship quality subscales were analyzed in this study. Internal consistency in the current sample was adequate for the positive (Time 1 $\alpha = .90$, Time 2 $\alpha = .92$) and negative (Time 1 $\alpha = .69$, Time 2 $\alpha = .86$) subscales.

In addition to reporting on indicators of friendship quality, both the target adolescent and the friend indicated whether they considered their friend to be a best friend, a close friend, a friend, but not a close friend, or an acquaintance. These reports were made independently in separate rooms, so that each adolescent had the opportunity to honestly report on his/her perceived status of the relationship. All target and friend participants indicated that their partner in this study was a best or close friend; no one selected the latter two options.

Observational coding—A macrocoding system developed by the second author was used to rate the quality and tone of each dyad's relationally aggressive talk. Relationally aggressive talk was defined as any instance of negative gossip or insulting comment directed at an absent third party, such as spreading rumors, telling another person's secret, or making derogatory remarks about an absent third party. In addition, any active attempt to influence the relationship between the conversational partner and a third party was considered an instance of relationally aggressive talk. This conceptualization of relationally aggressive talk focuses on the collaborative nature of relational aggression, rather than on aggression that may occur within the dyad (i.e., an adolescent being relationally aggressive against the conversational partner).

Independent raters coded the 5-min segment during which the dyads were asked to discuss their peer group. Unlike the other discussion prompts, "Discuss your peer group" elicited conversations about friendships and peers and was the most relevant for the purposes of the present study. Macroratings of each dyad's relationally aggressive talk were made on a 5-point scale. Ratings were based on the quality and tone of the relationally aggressive talk, and coders considered aspects such as content, affect, tone of voice, and facial expressions when rating the dyads. The inclusion of these behaviors is consistent with research that has shown that children view exclusive gestures (e.g., rolling eyes, exchanging looks of disgust) as hurtful and as indicating dislike and with research that has indicated that these nonverbal behaviors are associated with self-reported relational aggression (Galen & Underwood, 1997; Paquette & Underwood, 1999; Underwood & Buhrmester, 2007). Therefore, a high score did not merely reflect the number of comments made during the interaction. Dishion, Spracklen, Andrews, and Patterson (1996) described dyadic interactions as a "gestalt of semantic content" (p. 375), including both verbal and nonverbal cues. Macrocodes capture the nuances involved in relationally aggressive talk, as well as the interdependent nature of dyadic interactions (Dishion et al., 1996; Lansford et al., 2006), requiring coders to synthesize the interaction and apply a global judgment (Lindahl, 2001).

For a code of 1, the dyad did not engage in any instances of relationally aggressive talk. For a code of 2, the dyad engaged in some relationally aggressive talk, but comments were mild

in content and the corresponding affect of the speaker was not particularly negative. Mild content included statements that were made in an effort to state a fact or a mild dislike for a third party (e.g., “Johnny has been really mean to him lately”). For a code of 3, most of the instances of relationally aggressive talk were mild in content, but one comment was made with heightened negativity toward a third party. Comments that expressed heightened negativity included statements that denoted a substantial dislike for a third party or comments that considerably ridiculed the third party (e.g., “I hate him/her,” “He/she is such a loser,” “I can’t believe that someone could like him/her”). For a code of 4, more than one comment was made with heightened negativity toward a third party. The distinction between a code of 3 and 4 was made primarily on the basis of the number of comments that expressed heightened negativity, as well as the content of the statements and corresponding affect. For a code of 5, there were multiple instances relationally aggressive talk that were particularly hurtful and negative in affect. A code of 5 was reserved for extremely hurtful, personal attacks directed toward a third party.

Coding was based on the presence of a behavior and not its intent. Although “intent to harm” is a common feature of most definitions of aggression (Dodge, Coie, & Lynam, 2006; Harré & Lamb, 1983), intentions cannot be directly observed (Underwood, Galen, Paquette, 2001). For instance, it seems possible that an adolescent may perceive evaluative talk as hurtful, even if there was no intent to harm. Alternatively, an adolescent may engage in this behavior with the intent to harm with ineffective results. Moreover, aggressive behavior may serve multiple goals beyond the intent to harm (Underwood et al., 2001). For example, relational aggression may provide a means of expressing feelings of anger and frustration, inflicting emotional harm, or obtaining a desired position within the social hierarchy (Underwood et al., 2001). Therefore, no judgments were made regarding the adolescents’ intent to harm, and all coding was based on the aforementioned criteria.

The sample of 56 target adolescents yielded a total of 56 dyadic interactions. The first author, blind to the dyads’ friendship quality and reciprocity status, rated the interactions of all adolescents in the sample. An independent coder, a research assistant trained by the second author and blind to friendship quality and reciprocity status, rated a random sample of slightly more than one third (36%) of the sample for reliability purposes. The intraclass correlation— ρ_{IS} (3, 1; Shrout & Fleiss, 1979)—was .89. Intraclass correlations were used instead of kappa to assess reliability to capture how close the coders’ ratings were to one another (Lansford et al., 2006).

Results

Preliminary analyses—Means and standard deviations for all primary variables are presented in Table 4. Consistent with meta-analytic findings that failed to find gender differences in relational aggression when assessed observationally (Card et al., 2008), results revealed no significant gender differences in observed relationally aggressive talk. Levels of self-reported positive friendship quality were higher for girls than for boys at Time 1, $t(54) = 3.45$, $p < .01$, $d = -.92$, and Time 2, $t(54) = 3.21$, $p < .01$, $d = -.86$. Twenty-seven of the 56 target adolescents were involved in a reciprocal best friendship. Fifty percent of girls and 46.67% of boys were involved in reciprocal best friendships. Pearson correlations were

conducted to examine bivariate associations among all study variables (see Table 5). Results revealed a significant positive correlation between observed relationally aggressive talk at Time 1 and self-reported negative friendship quality at Time 2. High levels of stability were evident for positive and negative friendship quality over time. In addition, preliminary analyses indicated that the variables were not skewed and that transformations were not necessary.

Longitudinal prediction of positive friendship quality—Hierarchical linear regression procedures were conducted to examine the association of relational aggression with self-reported positive friendship quality over time. Using Time 2 positive friendship quality as the dependent variable, Time 1 positive friendship quality was entered on an initial step. Observed relationally aggressive talk was centered and entered on a second step, along with friendship reciprocity status. Friendship reciprocity status was coded as a dichotomous variable that indicated whether target adolescents were involved in a reciprocal best friendship with the adolescent they selected as their friend. Reciprocal best friendship was defined as a relationship in which both adolescents mutually nominated one another as “best friends” at Time 1. Although adolescents were given the option of nominating their friend as a best friend, close friend, friend but not close friend, or acquaintance, all adolescents indicated that their friend was either a best friend or a close friend. Therefore, the nonreciprocal best friendship group included dyads that mutually nominated each other as close friends, as well as dyads in which only one adolescent described the relationship as a best friendship. A two-way interaction between relationally aggressive talk and friendship reciprocity status was entered on a third step to examine friendship reciprocity status as a moderator (see Table 6).

Analyses revealed a significant Relationally Aggressive Talk $\times$ Friendship Reciprocity Status interaction effect for the prediction of Time 2 positive friendship quality (see β at step, Table 6). Holmbeck’s (2002) most recent guidelines for post hoc probing of significant moderational effects were used to explore whether relationally aggressive talk was a significant predictor of positive friendship quality among adolescents involved in reciprocal best friendships. To probe the interaction, two new conditional moderator variables were computed. For the first variable, a value of 1 was assigned to the reciprocated group, and a value of 0 was assigned to the unreciprocated group, and for the second variable, values were 0 for reciprocated and -1 for unreciprocated. These new variables were then used in two separate post hoc regressions by entering the main effect for relationally aggressive talk, one of the conditional group variables, and the interaction of relationally aggressive talk and the conditional group variable. These two regressions generated separate slopes for the reciprocated group and the unreciprocated group. Results did not reveal slopes significantly different from zero between relationally aggressive talk and positive friendship quality for adolescents who were not involved in reciprocal best friendships ($b = -.10$, $\beta = -.15$, *ns*). On the other hand, for adolescents with a reciprocal best friend, the slope was significant ($b = .18$, $\beta = .26$, $p < .05$, one-tailed). In other words, adolescents involved in a reciprocal best friendship who engaged in high levels of observed relationally aggressive talk at Time 1 experienced increases in positive friendship quality at Time 2, even after controlling for

initial levels of positive friendship quality. This effect was not observed for adolescents who were not involved in a reciprocated best friendship.

Longitudinal prediction of negative friendship quality—Using Time 2 negative friendship quality as the dependent variable, an identical series of analyses to that described above was conducted to test the hypothesis that observed relationally aggressive talk would be associated with increases in self-reported negative friendship quality over time. Analyses revealed a significant main effect of observed relationally aggressive talk in the prediction of increases in Time 2 negative friendship quality, controlling for Time 1 negative friendship quality (see β at step; Table 6). There was not a significant Relationally Aggressive Talk $\times$ Friendship Reciprocity Status interaction effect for the prediction of negative friendship quality over time.

Discussion

Results from this study corroborated some findings from Study 1. Among adolescents involved in a reciprocal best friendship, high levels of observed relationally aggressive talk were associated with increases in positive friendship quality over time. In Study 2, observed relationally aggressive talk also predicted increases in negative friendship quality over time. This association was not significantly moderated by friendship reciprocity status, suggesting that relational aggression may be associated with negative relational outcomes, regardless of the type of friendship that exists between two adolescents.

The moderating effect of friendship reciprocity status suggested that mutual best friendship may reflect a unique relational context for adolescents. Perhaps the high degree of shared knowledge within best friendships creates an environment in which adolescents feel more comfortable engaging in relationally aggressive talk, especially if they are familiar with each other's opinions about their peers (Cleary et al., 2002; Ladd & Emerson, 1984). Freedom to engage in relationally aggressive talk may create more opportunities for validation of opinions and positive reinforcement by a friend, fostering increases in positive friendship quality. Similarly, friendships in which only one adolescent considers the relationship to be a "best friendship" may be characterized by an imbalance in self-disclosure. If only one adolescent in the dyad engages in relationally aggressive talk, without the reinforcement of his or her friend, positive friendship quality may not increase.

General Discussion

To date, the majority of the research on relational aggression has been driven by the dominant conceptualization of this behavior as maladaptive and as serving the singular function of harming others. However, an emerging line of research on the possible adaptive functions of relational aggression suggests that a program of research that presumes a linear association between relational aggression and negative outcomes may be limited. The studies presented in this article sought to create a more balanced characterization of relational aggression. Using a multimethod approach, these studies provide support for the idea that relational aggression may predict positive and negative outcomes within the dyadic context of adolescent friendship.

The results of Study 1 and Study 2 were consistent in finding that relational aggression is associated with the growth of positive friendship quality. In Study 1, adolescents who were rated highly by their peers as engaging in relational aggression at Time 1 experienced an overall increase in their perceptions of positive friendship quality. However, relational aggression was not associated with partner effects, suggesting that adolescents' relational aggression did not predict changes in their friend's report of positive friendship quality. Perhaps relational aggression serves to confirm one's own relationship perceptions. Results from Study 2 were consistent with those from Study 1, indicating that among adolescents involved in a reciprocal best friendship, high levels of observed relationally aggressive talk were associated with increases in positive friendship quality 6 months later. Taken together, the results from these studies challenge the dominant view of relational aggression as solely maladaptive. It is possible that relational aggression may alternatively function to strengthen relationships, serving as a bonding experience between friends through the sharing of sensitive and intimate information.

Consistent with a "double-edged sword" characterization of relational aggression (Cillessen et al., 2005), results from Study 2 revealed that relationally aggressive talk predicted increases in negative friendship qualities, in addition to increases in positive friendship qualities. This finding is consistent with previous research linking relational aggression with maladaptation. However, it is interesting to consider increases in negative friendship quality in light of simultaneous increases in positive friendship quality. Perhaps the presence of positive friendship quality outweighs the costs of negative friendship quality, such that it is rewarding to maintain the relationship. Similar results indicating an association between relational aggression and negative friendship quality were not found in Study 1, possibly because of differences in the measurement of relational aggression. Perhaps relationally aggressive talk that is observed within the dyad is a more sensitive predictor of relationship problems, as opposed to relational aggression that is observed in the larger peer group.

Taken together, these two studies suggest that investigating how relational aggression may serve a variety of functions, including how it may foster closeness between friends, may be an important research imperative. Instead of viewing relational aggression as a monolithic construct, it is possible that different forms of relational aggression (e.g., sharing negative gossip in the context of a friendship, publicly excluding a peer from the group) are differentially predictive of adaptive and maladaptive outcomes. For example, perhaps in some contexts, relational aggression presents an outlet for the expression of negative affect, as well as a means of regulating emotional distress. Underwood (2003) suggested that relationally aggressive attempts to harm another person's relationships may also represent a strategy for coping with the subjective experience of anger and frustration. As such, relational forms of aggressive behavior may serve as a means of channeling the expression of anger and coping with negative affect through validation and support from a friend. Future research should aim to clarify associations between relational aggression and adaptation by considering the function served by the behavior.

Limitations and Future Directions

Although this study offers new information about relational aggression and friendship quality, several limitations exist that should be addressed in future research. In Study 1, relational aggression and overt aggression were measured by only two peer-nomination items each. Moreover, it is possible that the items measuring overt aggression (i.e., “Who gets mad or angry easily?” “Who starts fights?”) could be interpreted as relationally aggressive behaviors. Although these items were selected to maintain consistency with previous research (e.g., Asher & Williams, 1987; Coie & Dodge, 1983; Crick & Grotpeter, 1995; Prinstein & Cillessen, 2003), future studies would benefit from increasing the number of peer-nomination items used to assess relational and overt aggression and from selecting items that clearly distinguish between these two constructs (e.g., “Who punches, kicks, hits?”).

In Study 1, the degree of association between overt and relational aggression was not significant at Time 2, which is inconsistent with previous research indicating significant intercorrelations between these two constructs (Card et al., 2008; Crick, 1996; Crick & Grotpeter, 1995; Little et al., 2003). The low correspondence between overt and relational aggression could be attributed to the unique characteristics of the best friend subsample, a group with lower levels of aggression than in the larger sample. In fact, the correlation between overt and relational aggression is higher in the larger sample (Time 1 $r = .65$, $p < .01$; Time 2 $r = .53$, $p < .01$) than in the subsample (Time 1 $r = .38$, $p < .01$; Time 2 $r = .18$, ns).

Gender did not moderate associations between relational aggression and friendship quality in Study 1. In addition, power constraints precluded the examination of gender as a moderator in Study 2. Although previous research findings suggest that girls may be more relationally aggressive than boys (e.g., Crick & Grotpeter, 1995), subsequent research has yielded mixed results (Card et al., 2008). Moreover, research by Rose, Swenson, and Carlson (2004) suggests that associations between relational aggression and friendship quality are comparable across gender. Given these inconclusive findings, future studies should more fully incorporate the role of gender when examining associations between relational aggression and friendship quality.

The use of a multimethod approach lends more weight to the finding that relational aggression predicts increases in both positive and negative indicators of friendship quality; however, future research designs would benefit from integrating peer nominations and observations of relational aggression into one study. Doing so would strengthen the psychometric properties of the observational assessment and coding of relationally aggressive talk used in Study 2. Examining the predictive validity of this coding scheme, as well as its correspondence with other reports of relational aggression is necessary to establish the appropriateness and generalizability of this approach to other research samples.

Both studies included community samples, and therefore, results may not be generalized to clinical populations. In addition, adolescents who were involved in a stable, reciprocal best friendship in Study 1 had lower levels of overt and relational aggression than did those who were not. However, despite the fact that these studies are not examinations of extreme forms

of relational aggression exclusively, they contribute to our understanding of more moderate, and perhaps normative, expressions of this behavior. Consistent with a developmental psychopathology approach, information about normative developmental processes may inform research on more extreme cases of relational aggression. To develop a comprehensive conceptualization of relational aggression, it is important that we consider the full range of its manifestations.

Both studies also were limited to adolescent samples, and therefore, results cannot be generalized to younger or older populations. Research on the developmental trajectories of relational aggression suggests that the acceptability of relational aggression varies across the lifespan (Cillessen & Mayeux, 2004; Rose, Sweson, & Waller, 2004; Smith et al., 2010). Consequentially, relational aggression may not foster positive friendship quality among age groups that typically do not associate relationally aggressive behavior with positive outcomes. In addition, relational aggression may not be a developmentally appropriate strategy for improving friendship quality among younger children. Compared with adolescents, younger children place less emphasis on friendship intimacy and establish intimacy via shared experiences as opposed to self-disclosure (Buhrmester, 1990; McNelles & Connolly, 1999). However, the present studies do contribute to our understanding relational aggression and the development of friendship quality for an age group in which relational aggression may be particularly salient.

It is important to note that although both studies were longitudinal, they were correlational in nature, and therefore, inferences about causation cannot be made. Future research should more fully examine the processes by which relational aggression may contribute to adaptive and maladaptive outcomes. Replication and larger sample sizes also are needed.

Overall, longitudinal analyses of friendship quality in adolescence suggest that relational aggression may contribute to increases in both positive and negative indicators of friendship quality. These findings challenge contemporary conceptions of relational aggression as constituting a fundamentally maladaptive behavior and offer evidence of potential adaptive functions within relationship contexts. Instead of viewing relational aggression as a deterministic predictor of negative outcomes, it is important that future research identifies moderators of the associations between relational aggression and sociopsychological adjustment. Moreover, future research should aim to create a more balanced conceptualization of relational aggression (Heilbron & Prinstein, 2008). Although relational aggression may be associated with adaptive outcomes, it is important not to overlook the harm experienced by victims. Internalizing and externalizing problems experienced by both victims and aggressors raise significant concern and provide scientific justification for the development of research-based intervention programs (Crick, Casas, & Nelson, 2002). However, the present findings suggest that there exists an adaptive and rewarding aspect of relational aggression that may serve as a challenge to intervention efforts. Additional research is needed to further understand the various social and developmental contexts in which relational aggression may or may not reflect positive adaptation.

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Table 1

Means and Standard Deviations for Primary Variables at Times 1 and 2

Time point	Variable	Overall		Boys		Girls		β
		M	SD	M	SD	M	SD	
1	Relational aggression	-.30	.39	-.33	.25	-.28	.47	.06
	Overt aggression	-.36	.15	-.31	.17	-.39	.13	-.28
	Positive friendship quality	3.79	0.84	0.30	0.84	4.13	0.64	.49***
2	Negative friendship quality	1.54	0.38	1.43	0.31	1.63	0.41	.26
	Relational aggression	-.26	.47	-.40	.39	-.15	.50	.27
	Overt aggression	-.32	.23	-.26	.32	-.36	.13	-.21
	Positive friendship quality	3.45	0.82	2.96	0.68	3.81	0.73	.48***
	Negative friendship quality	1.56	0.48	1.54	0.49	1.57	0.48	.04

 $p < .001$.

Table 2

Bivariate Associations Among Primary Variables

Variable	1	2	3	4	5	6	7
Time 1							
1. RA							
2. OA	.38**						
3. PFQ	.06	-.10					
4. NFQ	.11	-.06	.07				
Time 2							
5. RA	.65**	.14	.26*	.12			
6. OA	.17	.32*	.06	-.01	.19		
7. PFQ	.25	-.20	.62**	-.14	.43**	-.08	
8. NFQ	.14	-.02	.16	.38**	.21	.04	-.04

Note. RA = relational aggression; OA = overt aggression; PFQ = positive friendship quality; NFQ = negative friendship quality.

* $p < .05$.

** $p < .01$.

Table 3

Longitudinal Prediction of Friendship Quality: Prediction of Actor and Partner Effects of Positive and Negative Quality From Relational and Overt Aggression

Criterion measure	Predictor: Relational aggression		Predictor: Overt aggression	
	Unstandardized <i>B</i> (<i>SE</i>)	Standardized β	Unstandardized <i>B</i> (<i>SE</i>)	Standardized β
Positive friendship quality (actor)	.57* (.25)	.22	-1.25 (.67)	-.24 [†]
Positive friendship quality (partner)	-.12 (.25)	-.05	-.01 (.67)	.00
Negative friendship quality (actor)	.23 (.16)	.17	-.19 (.42)	-.06
Negative friendship quality (partner)	.21 (.16)	.15	-.10 (.42)	-.03

[†]
 $p = .06$.

*
 $p < .05$.

Table 4

Means and Standard Deviations for Primary Variables

Time point	Variable	Overall		Boys		Girls		<i>t</i> (54)
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1	Relational aggression (observed)	3.00	1.14	3.03	1.07	2.96	1.25	-0.23
	Positive friendship quality	3.32	0.75	3.02	0.62	3.66	0.75	3.45**
	Negative friendship quality	1.54	0.36	1.52	0.32	1.56	0.41	0.45
2	Positive friendship quality	3.47	0.80	3.18	0.79	3.81	0.68	3.21**
	Negative friendship quality	1.54	0.47	1.53	0.49	1.54	0.45	0.10

**
 $p < .01$.

Table 5**Bivariate Associations Among Primary Variables**

Variable	1	2	3	4
Time 1				
1. Observed relational aggression				
2. Positive friendship quality	.12			
3. Negative friendship quality	.07	.33 *		
Time 2				
4. Positive friendship quality	.09	.70 **	.07	
5. Negative friendship quality	.31 *	.07	.42 **	-.02

*
 $p < .05$.

**
 $p < .01$.

Table 6
Longitudinal Prediction of Positive and Negative Dyadic Friendship Quality by Observed Relationally Aggressive (RA) Talk

Predictor	Positive				Negative			
	Step statistics		Final statistics		Step statistics		Final statistics	
	R^2	$B (SE)$	β	$B (SE)$	R^2	$B (SE)$	β	$B (SE)$
Step 1	.49***				.18**			
T1 Friendship quality		.75 (.10)	.70***	.75 (.12)		.55 (.16)	.42***	.56 (.15)
Step 2	.00				.09*			
Reciprocation		-.10 (.18)	-.06	-.08 (.17)		-.12 (.11)	-.13	-.12 (.11)
RA talk		.01 (.07)	.01	-.10 (.09)		.12 (.05)	.29	.18 (.06)
Step 3					.03			
RA Talk $\times$ Reciprocation	.04*			.29 (.14)	.26*			-.15 (.10)
Total R^2	.53*				.30**			-.23

Note. Step statistics reflect regression weights at step of entry; final statistics indicate regression weights after all predictors have been entered hierarchically.

* $p < .05$.

** $p < .01$.

*** $p < .001$.