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Attachment organization as a moderator of the link between friendship quality and adolescent delinquency

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Abstract

This study examined attachment organization as a moderator of the link between the quality of the adolescents' current friendships and delinquent behavior. Data were gathered from a moderately at-risk sample of 71 ethnically and socioeconomically diverse adolescents. Results revealed a moderating effect of attachment organization (as assessed by the AAI) such that strong and supportive friendships were linked to *lower* levels of delinquency, but only when adolescents' attachment organization reflected an orientation toward heightened attention to attachment relationships (via preoccupation or via clear *lack* of dismissal of attachment). These results suggest that attachment organization plays an important role in delineating the conditions under which the qualities of social relationships are likely to be linked to important psychosocial outcomes.

Keywords: *Attachment, friendship, delinquency*

Introduction

A large body of literature has converged on the notion that peer relationships become increasingly important during adolescence (e.g., Berndt, 1996; Csikszentmihalyi & Larson, 1984; Larson & Richards, 1991), such that they begin to take on many of the social functions that they will serve for the remainder of the lifespan (Ainsworth, 1989; Fuligni & Eccles, 1993; Gavin & Furman, 1989, 1996; Hartup, 1992; Rice & Mulkeen, 1995). Further, several recent studies have demonstrated the importance of peer relationships for a range of adolescent emotional and behavioral outcomes. Such studies have often emphasized the negative aspects of peer relationships, either in terms of the negative outcomes associated with conformity to negative peer norms (e.g., Dishion, McCord, & Poulin, 1999; Hops, Andrews, Duncan, Duncan, & Tildesley, 2000; Urberg, Degirmencioglu, & Pilgrim, 1997), or in terms of the numerous emotional and behavioral problems associated with the failure to establish close, connected peer relationships altogether (e.g., Inderbitzen, Walters, & Bukowski, 1997; Olsson, Nordstroem, Arinell, & von Knorring, 1999; Prinstein, Boergers, Spirito, Little, & Grapetine, 2000; Williams, Connolly, & Segal, 2001).

Various studies of adolescent externalizing behavior in particular have underscored the importance of peer relationships and present a somewhat mixed picture. Association with deviant peers, for example, has been linked to outcomes ranging from delinquency to risky sexual behavior (DiIorio, Dudley, Kelly, Soet, Mbwarra, & Potter, 2001; Dishion et al.,

1999; Prinstein, Boergers, & Spirito, 2001). Similarly, both alcohol and substance abuse as well as problematic adolescent sexual behavior appear to be strongly influenced by peer norms (Connolly, Furman, & Konarski, 2000; Hops et al., 2000; Prinstein et al., 2001; Urberg et al., 1997). Conversely, a few studies have also indicated the potential benefits of peer relationships, in that competence in close friendships during adolescence has been linked to a *decreased* likelihood of engaging in externalizing behaviors, including delinquent activities, risky sexual behavior, and aggressive behavior (Cullen & Boykin, 1995; Kuperminc, 1994; Kuperminc, Allen, & Arthur, 1996; Land, 1996). Thus, while it has been clearly established that certain qualities of peer relationships are linked with externalizing behaviors during adolescence, much less attention has been dedicated to understanding the benefits of close friendships during this stage of development. Said differently, the conditions under which peer relationships may serve positive functions for adolescents, particularly in relation to their level of delinquency, are not well understood.

In the past few decades, John Bowlby's attachment theory (1969/1982) has greatly enriched our understanding of social development during infancy and early childhood. More recently, attachment theory has provided a theoretical basis for understanding the presence of emotional and behavioral problems during adolescence (e.g., Allen & Land, 1999; Allen, Moore, & Kuperminc, 1997; Marsh, McFarland, Allen, McElhaney, & Land, 2003). Insecurity may lead to externalizing behavior by engendering hostility toward parents or efforts to minimize conscious attention directed toward parents, either of which may reduce parental leverage in exercising appropriate behavioral controls over their adolescents (Allen et al., 1997; Greenberg & Speltz, 1988; Patterson, DeBaryshe, & Ramsey, 1989). While in childhood, researchers have only inconsistently found links from insecurity to child noncompliance (Ainsworth, Blehar, Waters, & Wall, 1978; Alexander, Waldron, Barton, & Mas, 1989; Lay, Waters, & Park, 1989; Russo, Cataldo, & Cushing, 1981; Sroufe, Schork, Motti, Lawroski, & LaFreniere, 1984; Waters, Wippman, & Sroufe, 1979). In adolescence, insecurity has now been linked to conduct problems in several studies (Allen et al., 1997; Rosenstein & Horowitz, 1996). Further, researchers have increasingly recognized that while attachment organization may display some main effect relationships with adolescent outcomes, it is also quite likely to interact with qualities of adolescents' current relationships in predicting these outcomes. More specifically, it may be that qualities of social relationships are linked to delinquency in adolescence primarily for those adolescents who are open to thinking about these relationships, whether the thinking reflects security in attachment organization or preoccupation. For example, Allen and colleagues (1998) found that high levels of maternal control predicted lower levels of delinquency only for either secure or preoccupied adolescents. Another set of studies found that for preoccupied adolescents, mothers' strong displays of their own autonomy in discussions with their adolescents predicted both increased delinquency as well as other risky behaviors (Allen et al., 1998; Marsh et al., 2003). These researchers have proposed that certain characteristics of mother-adolescent relationships are more or less salient (or perhaps salient in different ways) for adolescents' behavioral functioning, depending on the attachment orientation of the adolescent.

These studies have begun to explore the ways in which the current mother-adolescent relationship may interact with attachment organization to contribute to the expression of problem behaviors during adolescence. The current study examined the idea that the interaction between maternal relationship characteristics and adolescent attachment organization in predicting functional outcomes might also generalize to apply to understanding of *peer* relationships in adolescence. Although friendships with peers are not necessarily attachment relationships in adolescence, there is considerable evidence that

qualities of an adolescent's attachment organization have significant influence on the ways in which friendships are organized and understood by the adolescent (Allen et al., 2003; Cassidy, 2001; Larose & Bernier, 2001; Waldinger, Seidman, Gerber, Liem, Allen, & Hauser, 2003; Zimmerman, 2004). Just as adolescents with dismissing attachment organizations tend to minimize the importance of attachment relationships with parents, it seems quite plausible that they might also minimize the increasingly intense, emotion-charged relationships that are now developing with their friends—and perhaps also minimize the influence of those relationships upon their own behavior (Larose & Bernier, 2001; Main, Goldwyn, & Hesse, 2002). Conversely, adolescents with secure or even preoccupied attachment organizations may well attend closely to qualities of their friendships, which in turn may have greater influence on their behavior (Main et al., 2002). Thus, while it seems likely that close and supportive friendships may generally act as a buffer against deviant behavior during adolescence, such relationships may lead to positive social outcomes primarily for adolescents who are cognitively and emotionally open to and valuing of close relationships. Conversely, friendships may be far less meaningful for adolescents who are dismissing of close relationships in general (Larose & Bernier, 2001). In sum, attachment organization may play a fundamental role in altering the nature of the link between relationships with friends and psychosocial functioning with respect to externalizing behaviors. No study to date, however, has examined the ways that the quality of adolescents' friendships might interact with attachment organization in predicting adolescents' behavior.

The current study thus investigated the links between the quality of adolescents' friendships and their engagement in delinquent behavior in the context of the adolescents' attachment organization, as assessed with the Adult Attachment Interview. These constructs were examined using an ethnically and socioeconomically diverse sample of moderately at risk adolescents who were selected to represent a meaningful range of psychosocial functioning. Consistent with previous research on peer relationships during adolescence, it was expected that poorer quality friendships would be directly linked to higher levels of delinquent behavior. However, and most importantly for the purposes of this study, friendship quality was also expected to interact with adolescents' attachment organization. Given the recent findings discussed above, it was hypothesized that close supportive friendships would not be particularly beneficial for dismissing adolescents and, in contrast, would serve a protective function for non-dismissing adolescents, including those who had preoccupied attachment organizations¹.

Method

Participants

Participants included 71 ninth and tenth graders, 40 male and 31 female. The age of the participants ranged from 14 to 17 years, with a mean of 15.9 years ($SD = 0.8$). The self-identified racial background of the sample was 42% European American, 56% African American, and 1% other. The majority of the participants lived in single parent families (59%), with the remainder of the sample about evenly divided between children living in intact families (two biological parents, 23%) and step-parent families (18%). The median family income was \$25,000, with a range from less than \$5,000 to greater than \$60,000. Mothers' median education level was a high school diploma with some training post high-school, with a range from less than an eighth grade education to completion of an advanced degree.

Participants were recruited from public high schools in rural, suburban, and moderately urban communities. Students were selected for participation in the study based on the presence of at least one of four possible academic risk factors, including failing a single course for a single marking period, 10 or more absences in one marking period, any lifetime history of grade retention, and any history of school suspension. These broad criteria were used in order to select a wide range of adolescents at risk for developing future academic and social difficulties, ranging from those performing adequately with only occasional minor problems to those already experiencing more serious difficulties. Based on these criteria, approximately one-half of all ninth- and tenth-grade students were eligible for the study.

This sample of 71 adolescents is a subset of a larger sample of 150 adolescents who participated in this study. Due to a technical error, the remaining adolescents were not correctly administered all of the measures used in this paper. Overall, the current sample did not differ from the larger sample, except that it had a greater composition of adolescents from racial/ethnic minority groups (57% vs. 39%, $p < .01$). Ethnicity did not significantly relate to any of the outcome variables in the current study.

Procedure

After adolescents meeting the selection criteria were identified, letters explaining the study as an ongoing investigation of teens' lives and families were sent to each family. Phone calls were then placed to families who indicated a willingness to participate in the study. If both the adolescent and the parents agreed to participate, the family came in for two 3-hour sessions, during which each family member worked individually with a member of the research team. Approximately 67% of the families contacted by phone agreed to participate. Families were paid a total of \$105 for their participation. At each visit, families gave active, informed consent to participate. They were insured that all responses were confidential and that their responses would not be shared with one another. All data in the study was protected by a Confidentiality Certificate issued by the United States Department of Health and Human Services, which protected information from subpoena by federal, state, and local courts. Transportation and childcare were provided if necessary.

Measures

Adult Attachment Interview (AAI; George, Kaplan, & Main, 1996; Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993). This structured, semi-clinical interview focuses on early attachment experiences and their effects. Individuals are asked to describe their childhood relationships with parents in both abstract terms and with requests for specific supporting memories. For example, participants were asked to list five words describing their early childhood relationships with each parent and then asked to describe specific episodes that reflected those words. Other questions focused upon specific instances of physical and emotional upset, separation, rejection, trauma, and loss. Finally, the interviewer asked participants to describe changes in relationships with parents and the current state of those relationships. The interview consisted of 18 questions and lasted an average of 1 hour. Slight adaptations to the original adult version were made to better accommodate an adolescent population (Ward & Carlson, 1995). Use of this interview with adolescent samples has been validated in previous studies using the current moderately at risk sample (Allen et al., 1998, 2002, 2003; Allen, McElhaney, Kuperminc, & Jodl, 2004; Berger, Jodl, Allen, McElhaney, & Kuperminc, 2005; Marsh et al., 2003), other at risk samples (Kobak, Sudler, & Gamble, 1991; Wallis & Steele, 2001; Ward & Carlson, 1995), and a normative sample of younger

adolescents (Allen, Porter, McFarland, Marsh, & McElhaney, 2005). All interviews were audiotaped and then transcribed for coding.

The AAI Q-Set (Kobak et al., 1993). The Q-set was designed to parallel the Adult Attachment Classification system (Main & Goldwyn, 1994), but to yield continuous measures of qualities of attachment organization. Each transcript was rated by at least two people with extensive training in both the Q-set and Main Adult Attachment Interview classification system, Q-sets for each attachment transcript were created by comparing each subjects' responses with dimensional prototype sorts for: *secure vs. anxious interview strategies*, reflecting the overall degree of coherence, integration of semantic and episodic memories, and a clear objective evaluation of attachment; *preoccupied strategies*, characterized either by an unfocused, rambling discourse or an angry preoccupation with attachment figures; and *dismissing strategies*, characterized by an inability or unwillingness to recount attachment experiences, idealization of attachment figures without the support of episodic memories, and a devaluation of attachment.

The coding process consisted of assigning 100 items into nine categories ranging from least to most characteristic of the interview using a forced distribution. Thus, an individual's score on each of the three dimensions (security, dismissing, and preoccupation) consisted of the correlation of the 100 items of the Q-set with that dimension (ranging from -1.00 to 1.00). The Spearman-Brown reliabilities for the final scale scores were .84 for security, .89 for dismissal of attachment, and .82 for preoccupation. Given that the attachment Q-sort yields three logically interdependent scales (e.g., security is equivalent to a lack of both dismissal and preoccupation), in the current study, security had a very strong ($r > -.9$) correlation with the dismissing scale. Thus, only the dismissing and preoccupied scales were used, so as to minimize any redundancy in the analyses.²

The data produced by the Q-set system can be reduced via an algorithm to classifications that largely agree with three-category ratings from the AAI Classification System (Borman-Spurrell, Allen, Hauser, Carter, & Cole-Detke, 1995; Kobak et al., 1993). A subset of the AAI transcripts from the present study was classified using the Main and Goldwyn (1994) system by an independent coder with well-established reliability (U. Wartner). Additional validity data for the Q-set codes in this study was thus obtained by reducing the scale scores to classifications by using the largest Q-scale score above .20 as the primary classification (Kobak et al., 1993). When these scores were compared to the classification codes, 74% received identical codes ($\kappa = .56$, $p < .001$), and 84% matched in terms of security versus insecurity ($\kappa = .68$).

Friendship quality. The Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) was utilized to assess adolescents' perceptions of their current friendships. Adolescents rated 25 items relating to the level of trust, communication, and alienation with their friends on a 5-point Likert scale. Sample items included: "my friends understands me," "I can tell me friends about my problems and troubles," and "my friends respect my feelings." The responses to these 25 items were summed (reversing the alienation items) to generate a composite score of the overall quality of each adolescent's relationship with his friends. This composite measure has been shown to have good test-retest reliability and has been related to other measures of family environment and teen psychosocial functioning (Armsden & Greenberg, 1987). Cronbach's α in this sample was .92 for the composite score.

Delinquent behavior (PBI; Elliot, Ageton, Huizinga, Knowles, & Canter, 1983). The Problem Behavior Inventory was used to assess adolescents' level of involvement in delinquent

activity. This measure is a well-validated self-report instrument, normed in a longitudinal study of a national probability sample of adolescents (Elliot et al., 1983). Self-report measures of delinquency have been found to correlate with reports from independent observers and official records, while also eliminating systematic biases in official records (Elliot & Ageton, 1980). Adolescents were asked to report the frequency of engaging in 38 delinquent acts in the past 6 months, including theft, vandalism, "joy riding," and violent acts against others. The total frequencies of all delinquent acts were then summed to create an index of overall involvement in delinquent behavior. Because the sums of these frequencies were highly positively skewed in the current sample (adolescents overall reported low levels of delinquency), scores were log-transformed prior to all analyses.

Results

Preliminary analyses

Descriptive statistics. Means and standard deviations of all variables are presented in Table I.

Correlations between demographic variables, attachment organization, friendship quality, and delinquent behavior are presented in Table II. As can be seen in Table II, both income and minority status were significantly correlated with dismissal of attachment, indicating that adolescents with more dismissing attachment strategies were more likely to come from ethnic minority families and/or families with lower income levels. Further, there was a trend-level relationship between adolescent gender and both dismissal of attachment and friendship quality, indicating that girls were somewhat less likely to hold dismissing attachment styles and somewhat more likely to report having close and supportive relationships with their friends. In addition, adolescents with a preoccupied attachment style

Table I. Means and standard deviations for predictors and outcomes.

	X	SD	Min	Max
Level of preoccupation	0.05	0.21	-0.27	0.58
Level of dismissing	0.24	0.41	-0.60	0.84
Friendship quality	100.44	14.96	70.00	123.00
Delinquent behavior	25.51 ¹	101.17	0.00	793.00

¹Due to the highly skewed nature of the self-reported delinquency variable, a log transformed version is used in all subsequent analyses.

Table II. Correlations among demographic variables, predictors, and outcomes.

	1	2	3	4	5	6	7
1. Income	-						
2. Minority status	-.49***	-					
3. Gender	-.06	.01	-				
4. Preoccupation	-.07	-.12	.11	-			
5. Dismissal	-.26*	.33**	-.23+	.20	-		
6. Friendship quality	.13	-.10	.21+	-.22+	-.18	-	
7. Delinquency	-.07	.02	-.17	.28*	.11	-.40***	-

Note: N = 71.

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

were somewhat more likely to report having less supportive friendships, and also were significantly more likely to report engaging in delinquent behavior. Finally, there was a significant negative correlation between friendship quality and delinquency, such that adolescents who reported having supportive friendships also reported engaging in less delinquent behavior.

Primary analyses

Analytic strategy. Because family socioeconomic status, adolescent ethnic minority status, and adolescent gender have been found to relate to delinquent behavior, these variables were all included as predictors in the regression analyses presented below. Interaction terms were created by standardizing the independent variables (quality of friendships and attachment organization) and multiplying them together. The independent variables and their corresponding interaction terms were entered into the equations following the demographic variables.

Adolescents' preoccupation with attachment as a moderator. This study first tested the hypothesis that a preoccupied attachment organization would moderate the link between the friendship quality and delinquent behavior. After accounting for the demographic variables as described above, the study tested for the main effects of the friendship quality and preoccupation, and in the final model the study then examined the role of preoccupation as a moderator by assessing the interaction of preoccupation and qualities of friendships as a predictor of delinquent behavior. The results of the final regression model are presented in Table III.

As indicated in Table III, after accounting for the effects of the demographic variables, a main effect was found for friendship quality ($\beta = -.32, p < .01$), such that self-reports of positive friendships were associated with less delinquent behavior. However, an interaction effect was also found ($\beta = -.39, p < .01$), indicating that holding a preoccupied attachment organization did moderate the link between friendship quality and delinquent activity. When relatively more preoccupied adolescents reported having stronger relationships with their friends, they also reported engaging in less delinquent behavior during the prior 6 months.

Table III. Hierarchical regression of adolescents' level of preoccupation and friendship quality in predicting delinquent behavior.

Step	Variables entered	β	R^2	ΔR^2
1	Income	.05	.04	-
	Minority status	.04		
	Gender	-.15		
	Statistics for this step			
2	Friendship quality	-.32*	.21**	.17**
	Preoccupation	.12		
	Statistics for this step			
3	Friendship quality * preoccupation	-.39**	.35***	.14***
	Statistics for this step			

Note: Beta weights are taken from the full model.

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

For relatively less preoccupied adolescents, friendship quality was unrelated to delinquent activity (see Figure 1).

Adolescents' dismissal of attachment as a moderator. A second set of analyses was conducted to test the hypothesis that a dismissing attachment organization would moderate the link between the friendship quality and delinquent behavior. After accounting for the demographic variables as described above, we tested for main effects of the quality of friendships and dismissal of attachment, and in the final model we tested for the interaction effect. The results of the final regression model are presented in Table IV.

As indicated in Table IV, after accounting for demographic variables, a main effect was again found for friendship quality ($\beta = -.43, p < .001$), with self-reports of positive peer relationships associated with less delinquent behavior. Again, however, an interaction effect was found ($\beta = .32, p < .01$), indicating that the link between friendship quality and delinquent behavior depended on whether the adolescent held a relatively dismissing or non-dismissing attachment organization. For relatively *non*-dismissing adolescents, more positive friendships were associated with significantly lower levels of delinquent behavior.

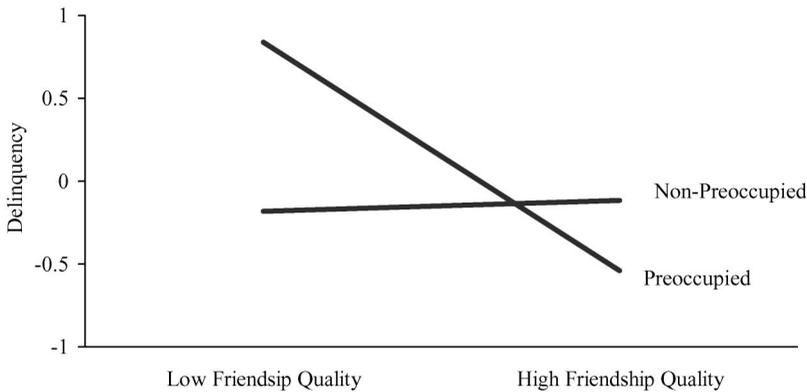


Figure 1. Interaction of adolescent's level of preoccupation with attachment and friendship quality in predicting delinquency.

Table IV. Hierarchical regression of adolescents' level of dismissal and friendship quality in predicting delinquent behavior.

Step	Variables entered	β	R^2	ΔR^2
1	Income	-.04	.04	-
	Minority status	-.09		
	Gender	-.09		
	Statistics for this step			
2	Friendship quality	-.43***	.17*	.13**
	Dismissal	-.05		
	Statistics for this step			
	Statistics for this step			
3	Friendship quality * dismissal	.32**	.26**	.09**
	Statistics for this step			

Note: Beta weights are taken from the full model.

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

Quality of friendships was unrelated to delinquent behavior for more dismissing adolescents (see Figure 2).

A combined model. To assess whether these two moderating effects represented unique (vs. redundant) effects in predicting delinquency, a final model was tested in which the main effects of friendship quality, dismissal of attachment and preoccupation with attachment were entered together as predictors of delinquency, following the demographic variables. In a subsequent step, both of the interaction terms tested previously (friendship quality and each attachment style in turn) were also entered together as a block. The results of this model are presented in Table V, and demonstrate that the quality of the adolescents' friendships, as well as the interactions between the friendship quality and each of the attachment styles continued to significantly predict the level of adolescents' delinquent behavior in this combined model. This finding indicates that both the presence of relatively higher levels of preoccupation as well as the relative absence of dismissing attachment strategies each provided a context that enhanced the relationship between positive friendships and lower levels of adolescent delinquent behavior. It also should be noted that, in this final model, the combination of

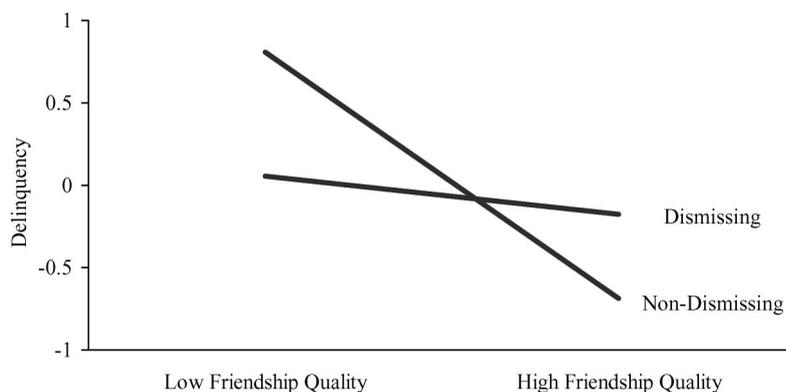


Figure 2. Interaction of adolescent's use of dismissing attachment strategies and friendship quality in predicting delinquency.

Table V. Combined model testing quality of relationship with peers, level of preoccupation, and level of dismissal in predicting delinquent behavior.

Step	Variables entered	β	R^2	ΔR^2
1	Income	.05		
	Minority status	-.03		
	Gender	-.12		
	Statistics for this step		.04	-
2	Friendship quality	-.38***		
	Preoccupation	.08		
	Dismissal	-.03		
	Statistics for this step		.21*	.17**
3	Friendship quality * preoccupation	-.38***		
	Friendship quality * dismissal	.28**		
	Statistics for this step		.42****	.21***

Note: Beta weights are taken from the full model.

* $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .0001$.

demographic variables, friendship quality, and attachment style account for 42% of the variance in self-reported delinquent behavior (see Table V).

Discussion

In an attempt to extend our understanding of the role that friendship quality plays in contributing to adolescents' delinquent behavior, the current study found that adolescents' attachment organization moderated the links between quality of their current friendships and engagement in delinquent activity. Although many findings to date regarding adolescent attachment have focused exclusively on security vs. insecurity, the results of this study suggest that the *type* of insecurity being assessed matters greatly in some contexts. When either preoccupied or non-dismissing teens reported having friends that they felt close to, could talk to, and could trust, they also reported engaging in lower levels of delinquent behavior during the past 6 months. Given that dismissal of attachment was highly inversely correlated with attachment security, these findings might be taken as indicating that close relationships mattered to individuals who had a secure attachment organization. However, the two moderating effects in combination suggest that the key factor was not so much attachment security as it was an orientation toward attending to attachment experiences. Consistent with similar results regarding mother–adolescent relationships (Allen et al., 1998; Marsh et al., 2003), these results suggest that for adolescents who are open to thinking about relationships, and for whom close relationships are especially salient, close friendships serve as a buffer to delinquency.

First, close relationships appeared to serve as a buffer against delinquency for individuals who were preoccupied with attachment relationships. Although both preoccupied and dismissing adolescents may have experienced caregiver relationships that led to insecurity, preoccupied individuals have not sought to minimize their conscious thinking about those relationships as many dismissing individuals have (Main et al., 2002). Other researchers have proposed that adolescents may act out in a desperate attempt to get some form of much needed, albeit negative, attention from their parents (Allen et al., 1997). For these adolescents, the presence of close friends who will provide positive attention may reduce the need for them to act out in this manner. Because preoccupied adolescents may be particularly desperate for attention, having close friends to give them this attention may make more of a difference than for dismissing adolescents who do not have this same overwhelming need. In other words, the need that preoccupation creates may be satisfied either through delinquency or close friendship, and for those fortunate enough to find close friendships, delinquency is no longer necessary.

It should be noted that the interaction effect between friendship quality and preoccupation might also be interpreted in another manner. Adolescents who held a preoccupied attachment style and who reported having more *distant* friendships also reported engaging in particularly high levels of delinquent behavior. Thus, due to their intense relational needs, it may be that preoccupied teens are particularly vulnerable to the effects of negative friendships. For example, they might engage in delinquent behavior not only in an attempt to gain attention from parents but also in an effort to gain attention and status from their peers (Moffitt, 1993). Future studies might consider gathering information on adolescents' motives for committing delinquent acts, which would help to determine the particular function that this behavior may be serving for preoccupied teens.

The current study also found that close relationships served as a buffer against delinquency for individuals who were *non-dismissing* of attachment. For adolescents who were dismissing of attachment, this lack of a buffering effect could be at least partly

attributable to the lesser role that friendships may actually play in their day-to-day lives. While adolescents with dismissing attachment strategies did not actually report having difficulties in their friendships, these teens' friendships may not be as close, or as close in some important respects, as they reported them to be. Dismissing individuals often idealize their attachment relationships (Main et al., 2002), and past research has indicated that while dismissing adolescents are seen as socially withdrawn by their peers (Larose & Bernier, 2001), they may themselves overestimate their level of social acceptance (Kobak & Sceery, 1988). The dismissing adolescents in this study may have idealized their friendships as being significant and supportive, when such relationships may in fact be superficial and distant—and therefore not effective in preventing delinquent behavior. Alternatively, it should be noted that non-dismissing individuals with *poorer* quality friendships reported relatively high levels of delinquency. In this light, a dismissing attachment strategy that minimizes the importance of relationships (whether they are positive or negative) may protect such adolescents in some way. Unlike preoccupied teens with poor friendships who may be acting out to gain status with peers as discussed above, dismissing teens who are relatively cut off from attachment needs may be less affected by negative peer relationships.

The current study extends beyond existing empirical research by examining the links between adolescents' representations of attachment and delinquent behavior in the context of current peer relationships. However, because of the cross-sectional nature of this study, causation cannot be inferred. It could be, for example, that adolescents begin to experience negative changes in their friendships and even lose friends as a result of problem behavior and delinquent activity, making poor friendships a result, rather than a cause, of delinquency. In addition, although extensive evidence suggests that self-reports are likely to be the most accurate and least biased of methods available to assess delinquency (Elliott & Ageton, 1980; Patterson & Stouthamer-Loeber, 1984), and the AAI is probably more aptly considered a test measure than a self-report measure, the use of data obtained entirely from the adolescent leaves open the possibility that method confounds may have influenced results in this study in some way. Future research would benefit by examining data gathered from multiple informants (e.g., peer-report data on adolescents' friendship quality) to substantiate the findings of this study. In addition, this study was also limited by its relatively small sample size, which restricts power for many analyses. For example, several trend level findings were obtained in this study (e.g., the correlation between preoccupied attachment and friendship quality), whereas prior research has found significant links between these factors. Finally, the Q-sort attachment methodology employed in this study, though clearly empirically linked to classifications using the Adult Attachment Interview classification system, does not allow assessment of insecure/unresolved classifications. This does not invalidate the present findings, as unresolved attachment organization is a superordinate classification that coexists in the context of an otherwise secure, dismissing, or preoccupied attachment organization. It does suggest, however, that future studies might explore the role of this additional aspect of attachment organization in terms of its interaction with the quality of adolescents' friendships in predicting adolescent outcomes.

These data suggest that attachment organization may influence not only the ways in which adolescents *view* close friendships (e.g., Kobak & Sceery, 1988), but also the degree to which such relationships can influence adolescents' day-to-day behavior. The buffering effect of close friendship for preoccupied and non-dismissing adolescents suggests that friendships can indeed be quite beneficial during this transitional period, but only for adolescents with certain approaches to thinking about attachment relationships. Thus, prevention efforts aimed at increasing adolescents' network of supportive and caring others may be most successful with either preoccupied or non-dismissing adolescents, and relatively unsuccessful with dismissing

adolescents. This point is especially highlighted given the fact that these data were gathered on a sample of moderately at risk adolescents who would be likely to be identified for just such a prevention program. Overall, this study extends beyond existing research by investigating the interaction between the quality of adolescents' current relationships with peers *and* their representations of attachment in predicting delinquency. These findings are important both in further establishing attachment as a lifelong construct and also in understanding the interplay of factors as they predict delinquency.

Acknowledgements

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Notes

- 1 The hypotheses were limited to dismissing and preoccupied styles, given that knowing the AAI Q-set scores in these two categories logically determines security scores.
- 2 The models presented were also tested using the security scale as a predictor. There was no main effect for security; friendship quality and security interacted such that friendship quality was negatively related to self-reported delinquency particularly for adolescents who presented a secure attachment organization.

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