

The Influences of Parent and Peer Attachment on Bullying

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Abstract Individuals with secure attachments to parents and peers are less likely to be bullies and victims of bullying. The current study examined the interplay between gender, parent attachment, and peer attachment as factors related to roles (bullying involvement, defending a victim, and outsider) during bullying. One-hundred forty-eight adolescents (M age = 15.68) completed surveys about parent and peer attachment and roles during bullying. Findings indicated that females were less likely than males to be involved in bullying and were more likely than males to defend a victim or be an outsider ($ps < .05$). Greater attachment security to parents and peers was associated with less involvement in bullying and greater defending of victims ($ps < .05$). Additionally, a significant three-way interaction demonstrated that greater peer attachment security predicted less bullying involvement for those with lower parent attachment security ($p < .05$), but not for those with higher parent attachment security ($p > .05$). However, this was only true for males ($p < .01$). These results indicate that having a secure attachment to peers may be a potential protective factor against bullying involvement for males with insecure attachments to parents. Future research should examine the possible mechanisms involved in the association between attachment and bullying, such as empathy, aggression, or social information processing.

Keywords Attachment · Bullying · Parents · Peers · Gender

Introduction

Bullying has become a major social problem and has consequently gained the attention of school administrators, policy makers, and psychologists alike. Given the immense impact bullying can have on bullies and victims (see Card and Hodges 2008; Powell and Ladd 2010 for reviews), recent psychological research has begun to focus on the potential factors that contribute to bullying behavior. Insecure relationships with parents and peers are possible factors that influence adolescents' bullying behaviors. The limited research in this area has supported hypotheses that an insecure attachment to parents is related to higher levels of bullying and victimization (e.g., Liu et al. 2012; Walden and Beran 2010). Even less research has focused on peer attachment, but the work that has been done has found that an insecure attachment to peers is related to greater bullying (Burton et al. 2013). Research examining the interplay of parent and peer attachments on roles during bullying (bullying involvement, defending a victim, outsider) is lacking and so it is worth examining the independent and interacting effects of parent and peer attachment on children's bullying behavior.

Bullying has been defined in many ways, but generally it is considered to refer to aggressive behaviors that are intended to harm and are repeated over time (Olweus 1995; Salmivalli et al. 2014). Moreover, bullying tends to involve a power differential with one person being either physically or psychologically stronger than the other individual (Olweus 1995). Bullying can take many forms, including

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physical aggression, verbal aggression, psychological aggression such as taunting or threatening, or relational aggression targeted at destroying relationships (Crick and Grotpeter 1995; Salmivalli et al. 2014). The aggression can also be direct (overt), such as physical attacks, or indirect (covert) to avoid detection, such as spreading rumors (Marini et al. 2006).

Episodes of bullying frequently occur in a group setting where other children are present and assume their own roles in the situation (Salmivalli et al. 1996). Salmivalli et al. (1996) delineated five roles in bully situations: (1) the bully who is the main aggressor, (2) reinforcers of the bully who laugh or encourage the bully, (3) assistants of the bully who do not start the bullying but may join in or physically help the bully, (4) defenders who stand up for the victim or seek help, and (5) outsiders who are either uninvolved witnesses or unaware of the bullying. Children tend to be cognizant of the roles they play, as their self-identified roles are associated with peer-identified roles (Salmivalli et al. 1996).

Over the last couple of decades, researchers have been trying to determine individual characteristics that predispose some children to participate in bullying. Such factors have included high levels of anger, impulsivity, poor regulation, supportive beliefs about violence, moral disengagement, social information processing, and low levels of empathy, among many others (Bosworth et al. 1999; Crick and Dodge 1996; Fanti and Kimonis 2012; Garner 2010; Noorden et al. 2015; Tanrikulu 2015). Social and family factors are also important to examine with regard to bullying. For example, previous research has indicated that parental use of power assertive discipline, interparental conflict, reinforcement of violence, and lack of supervision or limits are associated with children's bullying behaviors (see Powell and Ladd 2010 for a review; Tanrikulu 2015). Others have suggested that the quality of a child's attachment, or the enduring emotional bond between a child and a caregiver (Bowlby 1969), may influence bullying behaviors (e.g., Walden and Beran 2010).

Attachment theorists have long stressed the importance of the parent-child bond for the development of children's social competence (Bowlby 1969; Thompson 2008). As a result of their experiences with sensitive or insensitive caregiving, children construct internal working models of themselves, others, and relational partners that serve as cognitive affective filters that influence the ways in which children respond to others (Bretherton and Munholland 2008; Thompson 2008). Thus, if parents have responded to children's bids for protection with sensitivity and warmth, children construct working models of the self and others as worthy and respond to relational partners with warmth and affection (Bretherton and Munholland 2008; Thompson 2008). Conversely, children whose bids for comfort and protection are rejected or met with inconsistent sensitivity,

children construct internal working models of the self and others as unworthy and respond to others in a more rejecting or ambivalent way. Researchers have found support for the idea that children with secure parent attachments tend to be more socially competent and prosocial, more accepted by their peers, have better quality relationships with their parents and peers, and display more sophisticated emotional development including better regulation of emotions, than insecure individuals (e.g., Berlin et al. 2008; Grossmann et al. 2005; Sroufe 2005).

Having an insecure parent attachment may be related to greater involvement in bullying for many reasons. Insecure individuals have lower emotion regulation abilities, maladaptive social information processing, and poorer social problem solving skills, which can all contribute to a greater propensity for bullying (Dwyer et al. 2010; Panfile and Laible 2012; Raikes and Thompson 2008). Insecure individuals also tend to form negative working models of others and relationships and behave (possibly aggressively) in accordance with this perspective (Shaver and Mikulincer 2002). In line with this, Eliot and Cornell (2009) found that aggressive attitudes mediated the association between attachment and peer- and self-nominated bullying.

Associations have previously been found between parent attachment insecurity and bullying (e.g., Eiden et al. 2010; Liu et al. 2012; Özen and Aktan 2010; Troy and Sroufe 1987). For example, research has found that middle school students who were higher in attachment security were less likely to be bullies than insecure individuals (Kokkinos 2013; Walden and Beran 2010). Others have found that indirect high school bullies, victims, and bully/victims (who display behaviors of both bullies and victims) had higher levels of maternal attachment alienation (a characteristic of insecure attachments) than students who were uninvolved (Marini et al. 2006). Furthermore, direct bullies, victims, and bully/victims had lower levels of attachment trust with their mothers than uninvolved adolescents (Marini et al. 2006). Finally, researchers have also discovered that greater levels of paternal attachment anxiety and avoidance were associated with greater levels of relational aggression in an undergraduate sample (Williams and Kennedy 2012).

Some research has looked more closely at attachment's links with other roles during bullying. A secure attachment to the mother has been found to increase the likelihood that middle school-aged children would defend the victim (Nickerson et al. 2008). Other research has shown that peer-nominated bullies were more likely to self-report having greater avoidant attachment than victims and outsiders in a sample of 4th through 9th graders (Köiv 2012). Although Monks et al. (2005) did not find attachment security to influence roles (aggressor, victim, and defender), they found that aggressors were less likely to give constructive solutions to attachment separation scenarios than victims.

With the transition to adolescence, peers become a greater influence in adolescents' lives, and as a result, the focus of the attachment systems begins to change (Allen 2008; Hazan and Shaver 1994). Specifically, attachments become more reciprocal and reliant on internalized representations of relationships to guide behavior (Allen 2008; Nickerson and Nagle 2005). The defining features of attachments also become less directed toward the parent and more directed towards peers. Although early adolescents still use their parents as a secure base, they are more likely to maintain proximity toward peers and use peers as a safe haven (Hazan and Shaver 1994; Nickerson and Nagle 2005). Peer attachments may serve many similar functions to parent attachments (and have many similar effects on adolescent outcomes). However, peer attachments may also have unique consequences for adolescent social development, in part because of the more egalitarian nature of these bonds (Laible et al. 2000). Therefore, peer attachments have been found to be especially important for the development of empathy and perspective taking (Laible et al. 2000), which should prevent adolescent involvement in bullying and promote defending behavior.

Much less research has focused on the association peer attachment shares with bullying, which is surprising given the fact that bullying occurs between peers. However, Burton et al. (2013) examined differences in peer attachment between bullies, bully-victims, victims, and outsiders with a middle school-aged sample, and discovered that outsiders reported significantly higher peer attachment security than all other groups.

While previous research has examined links between parent attachment and bullying, limited research has studied peer attachment and no known research has tested both within the same model to see their relative influences. More importantly, there is limited research that explores the interplay between parent and peer attachment in predicting adolescent bullying roles and there are good reasons to expect that the two might interact to produce less bullying behavior. Previous studies have discovered interactions between parent and peer attachment where strength in one context can buffer weakness in the other. For example, Sentse et al. (2010) found that peer acceptance buffered the negative effects of parental rejection on adolescents' internalizing and externalizing problems. Specifically, when parental rejection is high, adolescents who were high in peer acceptance had fewer problems than those low in peer acceptance. Similarly, it is possible that some individuals with insecure attachments to parents might develop more secure attachments to peers to compensate (similar to Nickerson and Nagle 2005), and these secure peer attachments protect them from the negative effects of insecurity with parents, such as engaging in bullying.

Previous research often finds that male children of varying ages are more likely to self-identify or be

nominated by peers as physically aggressive and bullies than females (Bosworth et al. 1999; Monks et al. 2005; Salmivalli et al. 1996; Williams and Kennedy 2012). Others have found that bullying tends to be more stable for boys than for girls (Crapanzano et al. 2011).

Finally, other researchers have found the effects of attachment on externalizing behaviors and aggression to differ for males and females (e.g., McCartney et al. 2004; Williams and Kennedy 2012). For example, Williams and Kennedy (2012) found that greater attachment avoidance to the mother and greater attachment anxiety to the father were associated with more physical aggression for females, but not males. Greater attachment anxiety to the mother also predicted greater relational aggression for females, while greater attachment anxiety to the father predicted greater relational aggression for males. Thus, it is important to examine how parent and peer attachment separately interact with gender to predict roles during bullying, and also how parent and peer attachment may interact differently for males and females. Regarding the latter, it is possible that a secure attachment in one context may buffer against the risks of an insecure attachment in another context, but for only one gender.

The current study addressed multiple research questions with the following hypotheses: Based on previous research (e.g., Burton et al. 2013; Walden and Beran 2010), it was hypothesized that those with greater attachment security to parents and peers would report lower levels of bullying involvement and greater levels of defending the victim and being outsiders. Specific hypotheses were not made to predict if attachment to parents or peers would be a stronger predictor of bullying roles. Some previous research has found parent attachment to be more influential than peer attachment for aspects of adolescents' well-being, but the research is mixed (Greenberg et al. 1983; Laible et al. 2000; Raja et al. 1992). Similar to Sentse et al. (2010) it was predicted that for those who have an insecure attachment to parents, those who are more securely attached to peers would report less bullying involvement and greater levels of defending the victim and being outsiders than those who are less secure with peers. It was hypothesized that females would report lower levels of bullying involvement and greater levels of defending the victim and being outsiders, in line with the existing literature (e.g., Bosworth et al. 1999; Monks et al. 2005; Salmivalli et al. 1996; Williams and Kennedy 2012). Because previous research has demonstrated that predictors of aggression can differ for males and females (e.g., Miller et al. 2009), two- and three-way interactions were explored to see if parent and peer attachment predict aggression differently for males and females and if they interact differently for males and females. However, a priori hypotheses were not made.

Method

Participants

The current project was a part of a larger study of the emotional and cognitive factors related to moral and aggressive behavior. There is limited research on the association between attachment and bullying in high school students (see Marini et al. 2006, for an exception), and so the current study focused on this population. One-hundred forty-eight adolescents (M age = 15.68, SD = 1.16) participated in the study. Within this sample, 67% (n = 99) of participants were female, and 88.5% of participants were Caucasian (5.4% Hispanic, 2% African American, 1.4% Asian, 2% Other). Of the sample, 62% had mothers with some college education or higher, while 50% had fathers with some college education or higher.

Procedure

Students from two high schools in a moderate-sized Mid-Atlantic town were provided a written description of the project and were asked to return a signed parental consent form if they were interested in participating. Participants who returned parental consent forms then provided their own assent and completed the paper and pencil questionnaires during an extended homeroom period. Each adolescent was given a \$10 gift card after completion.

Measures

Attachment

Adolescents completed a shortened version of The Inventory of Parent and Peer Attachment (IPPA; Armsden and Greenberg 1987). The shortened version has previously displayed predictive validity with relevant constructs such as self-esteem and prosocial behavior (e.g., Laible et al. 2004). The IPPA asks participants to rate how true each of 24 items are concerning their parents and peers (12 questions each) on a five-point Likert scale (5 = almost always true or always true, sample item: “I tell my parent[friend] about my problems and troubles”). The IPPA yields the subscales of Trust, Communication, and Alienation for both parents and peers. Principal components analyses conducted separately for parents and peers revealed that the Parent Trust (α = .86), Communication (α = .81), and Alienation (α = .69) subscales merged onto one factor representing parent attachment and accounted for 75.59% of the variance (eigenvalue = 2.27, loadings > 1.821). Similarly, the Peer Trust (α = .83), Communication (α = .87), and Alienation (α = .63) subscales merged onto one factor for peer attachment and accounted for 77.85% of the variance

(eigenvalue = 2.34, loadings > 1.821). In both cases, the alienation subscales loaded negatively. The resulting factor scores created for parent and peer attachments were used in subsequent analyses.

Bullying

Participants completed The Participant Role Questionnaire (PRQ; Salmivalli et al. 1996). This survey asks participants to imagine that they witness bullying or are involved in bullying and to rate how likely they would be to perform each of 48 behaviors on a five-point Likert scale (5 = almost all the time). The PRQ yields the subscales of the roles as a bully (10 items, α = .94, sample item: “start the bullying”), reinforcer of the bully (7 items, α = .79, sample item: “incite the bully by shouting”), assistant of the bully (4 items, α = .70, sample item: “catch the victim”), defender of the victim (20 items, α = .93, sample item: “comfort the victim in the bullying situation”), and outsider (7 items, α = .84, sample item: “don’t even know about the bullying”). Subscale scores were created by averaging the items for each (e.g., the bullying subscale score was calculated as the mean of the 10 individual items). The self-report version of this scale has previously been found to be significantly correlated with peer nominations of bullying roles (Salmivalli et al. 1996). Because the subscales of bullying, reinforcing a bully, and assisting a bully were moderately to strongly intercorrelated (r s = .35 to .74, p s < .001), a principal components analyses was conducted to create a factor representing bullying involvement to lessen the number of dependent variables and tests conducted. All three subscales merged onto one factor and accounted for 68.97% of the variance (eigenvalue = 2.07, loadings > 1.691). In support of this aggregation, Crapanzano et al. (2011) did not find it necessary or useful to differentiate among these three roles.

Data analyses

Statistical analyses were performed using IBM SPSS Statistics 23. In terms of preliminary analyses, independent t -tests were conducted to examine gender differences in each of the bullying outcomes, and correlational analyses were used to examine simple associations between attachment and bullying. The main study hypotheses were tested using a series of multiple regression analyses because this study sought to examine how parent and peer attachment and gender uniquely and interactively account for variance in bullying roles, with the inclusion of 2- and 3-way interactions. Hierarchical regression models were built to predict each of the three bullying roles (bullying involvement, defending the victim, outsider) from gender, parent and peer attachment, and interactions between all variables. Gender,

parent attachment, and peer attachment were entered on the first step, and two-way interaction terms (gender by parent attachment, gender by peer attachment, and parent by peer attachment) were entered on the second step. The third step contained a three-way interaction term, gender by parent attachment by peer attachment.

Results

Descriptive statistics of bullying roles can be seen in Table 1. Independent t-tests revealed gender differences in all roles: bullying involvement, defending a victim, and being an outsider (see Table 1 for the means for males and females and tests of significance). Males were more likely to be involved in bullying and less likely to defend a victim or be an outsider. Females reported themselves to be more secure with peers than males did, but there was no gender difference for parent attachment (Table 1). Correlations displayed that higher levels of parent and peer attachment security were associated with lower levels of bullying involvement and higher levels of defending a victim (Table 2). Moreover, those who were more likely to defend a victim were less likely to be involved in bullying or be an outsider (Table 2).

The full model predicting bullying involvement was significant ($F(7,134) = 11.01, p < .001$), indicating that the model predictors collectively accounted for a significant portion of the variance in this outcome. Gender (t for β estimate = $-3.89, p < .001$) and parent attachment ($t = -2.72, p = .007$) both independently contributed to the full model, with boys and those who are less secure more likely to be involved in bullying (Table 3). However, these results

were qualified by significant gender by parent attachment ($t = 2.84, p = .005$) and parent attachment by peer attachment interactions ($t = 2.76, p = .007$). Further explorations of the former revealed that parent attachment predicted bullying involvement for males ($F(1,42) = 14.53, p = .001, R^2 = .26$), but not females ($F(1,96) = .01, p = .925, R^2 < .01$; see Fig. 1). Specifically, higher levels of parent attachment security were associated with lower levels of bullying involvement for males, but parent attachment did not influence levels of bullying for females. Further exploration of the interaction between parent and peer attachment displayed that peer attachment was a significant predictor for those with lower parent attachment (1SD below the mean; $t = -4.08, p < .001$). For these individuals, higher levels of peer attachment were associated with lower levels of bullying involvement. However, peer attachment did not predict bullying involvement for those with higher parent attachment (1SD above the mean; $t = 1.12, p = .263$) or individuals at the mean of parent attachment ($t = -1.77, p = .079$) (see Fig. 2).

There was also a significant three-way interaction between parent attachment, peer attachment, and gender in predicting bullying involvement ($t = -3.00, p = .003$). To explore this three-way interaction, the parent attachment by peer attachment interaction was tested separately for males and females, which revealed that this interaction was significant for males ($t = 3.05, p = .004$), but not females ($t = -.20, p = .839$). Additional testing of the interaction for males demonstrated that peer attachment significantly predicted bullying involvement for those with low parent attachment ($t = -2.09, p = .044$), but not for those with high parent attachment ($t = 1.48, p = .148$) or at the mean of parent attachment ($t = -.31, p = .759$) (see Fig. 3). For

Table 1 Descriptive statistics

	Full sample <i>M</i> (<i>SD</i>)	Males <i>M</i> (<i>SD</i>)	Females <i>M</i> (<i>SD</i>)	Gender differences
Parent Attachment	0(1)	-.04(1.02)	.04(1.01)	$t(141) = -.44, p = .66$
Peer Attachment	0(1)	-.33(1.04)	.15(.95)	$t(141) = -2.70, p = .008$
Bullying Involvement	0(1)	.58(1.37)	-.24(.67)	$t(53) = 3.77, p < .001$
Defender	2.93(.88)	2.64(.98)	3.04(.80)	$t(140) = -2.58, p = .011$
Outsider	2.58(.92)	2.33(.93)	2.69(.89)	$t(140) = -2.14, p = .034$

The parent attachment, peer attachment, and bullying involvement variables are all standardized variables

Table 2 Correlations

	1	2	3	4	5
1. Parent Attachment	–	.25**	-.23**	.27**	.02
2. Peer Attachment		–	-.22*	.28**	.03
3. Bullying Involvement			–	-.37**	-.01
4. Defending the Victim				–	-.37**
5. Outsider					–

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

Table 3 Regression models predicting bullying roles

Variables & steps	β s in full model	R^2	ΔR^2
Bullying involvement:			
1. Gender	-.28***		
Parent Attachment	-.22*		
Peer Attachment	-.05	.20***	
2. Gender X Parent Attachment	.23**		
Gender X Peer Attachment	-.00		
Parent Attachment X Peer Attachment	.20**	.32***	.12***
3. Gender X Parent Attachment X Peer Attachment	-.23**	.37***	.05**
Defending:			
1. Gender	.15		
Parent Attachment	.27**		
Peer Attachment	.19*	.15***	
2. Gender X Parent Attachment	-.10		
Gender X Peer Attachment	-.05		
Parent Attachment X Peer Attachment	-.03	.17***	.02
3. Gender X Parent Attachment X Peer Attachment	.02	.17**	.00

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

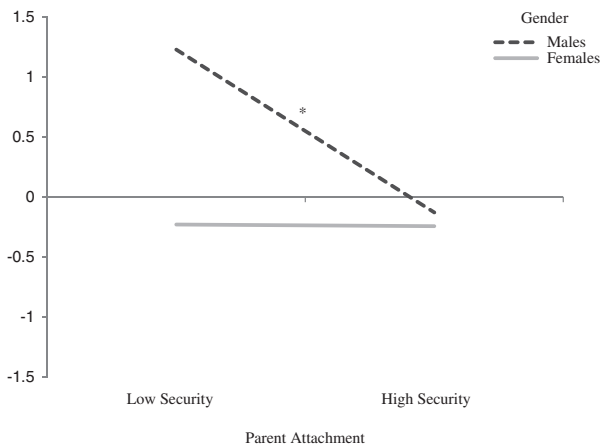


Fig. 1 Parent attachment by gender interaction predicting bullying involvement. *Note.* Bullying involvement is a standardized variable. *The slope for males is significant, $p < .001$

those low in parent attachment, higher peer attachment was associated with lower bullying.

Although a model built to predict outsiders was not significant ($F(7,134) = 1.53, p = .162$), the full hierarchical regression model predicting defending a victim was significant ($F(7,134) = 3.94, p = .001$), indicating that the predictors collectively accounted for a significant portion of the variance in defending a victim. Parent attachment ($t = 2.83, p = .005$) and peer attachment ($t = -2.07, p = .041$)

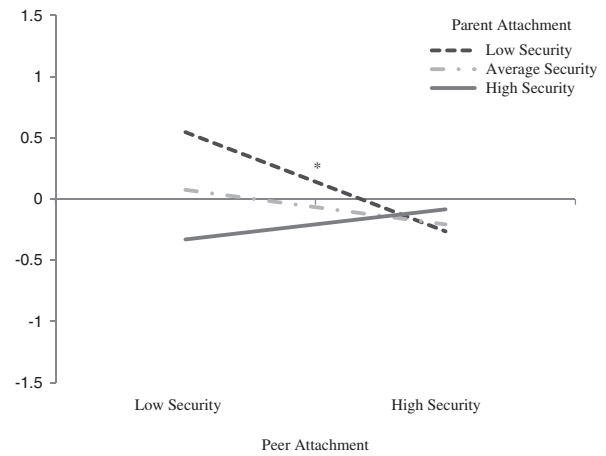


Fig. 2 Parent attachment by peer attachment predicting bullying involvement. *Note.* Bullying involvement is a standardized variable. *The slope for low parent attachment is significant, $p < .001$

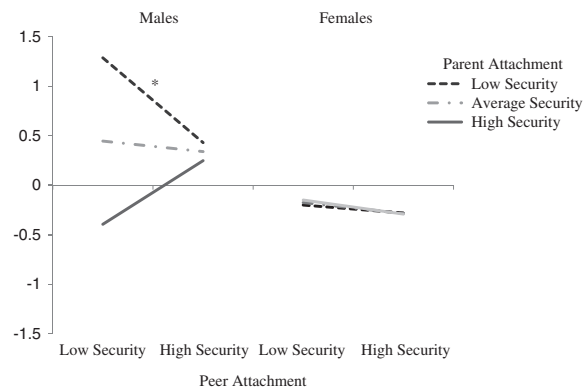


Fig. 3 Parent attachment by peer attachment predicting bullying involvement for males and females. *Note.* Bullying involvement is a standardized variable. The slope for low parent attachment for males is significant $p < .05$

both independently contributed to the model. Higher levels of parent and peer attachment security were associated with higher levels of defending the victim. No two-way or three-way interactions were significant.

Discussion

The current study attempted to look at the associations that attachment shares with roles during bullying, while at the same time testing parent and peer attachment in the same models to examine their relative influences and moderating effects. The first hypothesis stated that greater attachment security to parents and peers would be associated with less bullying involvement and greater defending of a victim. The results supported this prediction. In line with previous research, correlational analyses displayed that adolescents

who reported themselves to be more secure to their parents and peers were less likely be involved with bullying and more likely to defend a victim (e.g., Walden and Beran 2010). The results imply that forming secure attachments to both parents and peers decreases the likelihood of bullying and increases the chances that an individual will stand up for a victim. Although some previous work has examined parent attachment and bullying and victimization, the current study expands this by finding that attachment relates to more specific bullying roles. Also, little attention has been paid to the influence of peer attachment on bullying (see Burton et al. 2013 for an exception) and the current study lends additional support for the associations between peer attachment and roles during bullying.

Neither parent nor peer attachment was associated with being an outsider. The outsider construct captured heterogeneous patterns of behavior (e.g., no awareness of bullying situations, being a bystander), and combining different behaviors may have obscured potential associations attachment shares with individual behaviors (e.g., bystander behavior). Although others have found outsiders to have higher parent and peer attachment security than bullies, bully-victims, and victims (e.g., Burton et al. 2013, Marini et al. 2006), the current study was correlational in nature and did not look at different categories (i.e., bullies and victims). Perhaps if the present study grouped individuals by bullying statuses (rather than using continuous variables), the group of outsiders would have higher attachment scores than those involved in bullying.

To address the second research question regarding if parent or peer attachment would be a stronger predictor, the current study found that parent attachment made a greater independent contribution in predicting bullying roles than peer attachment. Specifically, when taking both parent and peer attachment into account, the previous association peer attachment shared with bullying involvement was eliminated while parent attachment remained a significant predictor. Moreover, the greater relative contribution of parent attachment was also evident in the interaction models, since peer attachment was not significantly related to bullying at high levels of parent attachment. Previous literature has been contradictory in supporting who, parents or peers, are more influential for adolescent well-being (e.g., Greenberg et al. 1983; Laible et al. 2000). In line with Greenberg et al. (1983) and Raja et al. (1992), the current study supported the greater influence of parent attachment, which had a larger independent role in predicting bullying roles. Many previous studies have found parent attachment security to be linked with social and emotional competence (e.g., Sroufe 2005). It is likely that parent attachment sets the stage for subsequent development by fostering better regulation abilities, social information processing, and positive internal working models that guide behavior in

relationships, including developing later peer attachments (Bretherton and Munholland 2008; Dwyer et al. 2010; Panfile and Laible 2012).

It is interesting to see that peer attachment remained influential for defending a victim in the regression models even when taking parent attachment into account. Piaget (1965/1935) argued that because peer relationships are characterized by social reciprocity, they provide a safe context for challenging each other's ideas. Through cooperation and compromise, such challenges can enhance moral development. More recent research has discovered that higher levels of peer attachment security are in fact associated with higher levels of empathy and prosocial behavior (Laible et al. 2000; Laible et al. 2004). Perhaps this greater empathy leads more-secure individuals to be more likely to defend a victim. Additionally, peer security may be important in predicting defending a victim because this act involves risk to a child's peer standing, such as if the bully decides to redirect the aggression to the defender. Those who feel more secure in their peer attachments may perceive that they will face fewer social repercussions if they defend a victim because they are confident in the strengths of their friendship bonds and certain that their friendships will not be harmed by defending a victim.

Addressing the third and fifth research questions regarding if parent and peer attachment interact and if this interaction differs by gender, results revealed that peer attachment was found to moderate the associations between parent attachment and bullying involvement, especially for males. Specifically, for male adolescents with insecure parent attachments, which is a risk factor for bullying (e.g., Kõiv 2012; Marini et al. 2006; Walden and Beran 2010), having a more secure peer attachment appears to act as a buffer and decrease bullying involvement. This result is in line with Sentse et al.'s (2010) finding of peer acceptance as a protective factor against the negative effects of parental rejection on psychopathology. Future research should investigate if peer attachment can protect against other negative social and emotional effects of having an insecure attachment to parents.

The fourth hypothesis predicted that females would report less bullying involvement and greater levels of defending the victim and being outsiders than males. The current results largely supported this and revealed that males were more likely to be involved in bullying. Although some previous researchers did not find gender differences in bullying (e.g., Walden and Beran 2010), many others have similarly found males to be more likely to be bullies (e.g., Bosworth et al. 1999; Salmivalli et al. 1996; Williams and Kennedy 2012). The different pattern of findings in the literature may be partially due to the types of aggression (e.g., proactive, physical, direct) examined. The current study also found that female adolescents are more

likely than males to engage in defending. Similarly, Jeffrey et al. (2001) and Salmivalli et al. (1996) have found middle school females to be more likely than males to defend a victim. However, the influence of gender on defending a victim was eliminated after considering parent and peer attachments.

Parent attachment also significantly interacted with gender in predicting bullying involvement, although this was qualified by the three-way interaction as discussed above. Additional analyses found that males who were less secure with their parents were more likely to be involved with bullying; however, parent attachment did not predict bullying for females. Less secure and more secure females both had low levels of bullying, which potentially results from low variability in bullying within this sample of females. Given that attachment did not predict bullying involvement for females, future research should investigate other pathways to bullying, such as emotional dysregulation, as contributors to females' bullying, or focus more closely on other types of bullying, such as relational bullying which tends to be more prevalent with females (Crick and Grotpeter 1995).

The current study is not without limitations. The sample was comprised of mostly Caucasian adolescents and so it is unclear if results would generalize to other ethnicities. Research has found that Caucasian youth are less likely to bully than African American and Native American individuals, but more likely to bully than Asian American children (Carlyle and Steinman 2007), and so the factors associated with bullying may differ. Additionally, individuals reported their own attachment and roles during bullying and so their responses may be biased. Relying on surveys could also lead to shared method variance which could inflate some of the findings. The current study did not take into account attachment to the mother and father separately, but instead looked at attachment to parents. Previous research has found different patterns of results for maternal and paternal attachment in relation to bullying (Williams and Kennedy 2012), but unfortunately, it is not known if the current results are driven by maternal or paternal attachment. Finally, because of the correlational nature of the analyses, causality cannot be inferred.

Future research should continue to examine the mechanisms involved in the association attachment shares with bullying. For example, Nickerson et al. (2008) found that empathy predicted the roles as defender and outsider after accounting for attachments to the mother and father. Eliot and Cornell (2009) found that associations between parent attachment and peer-nominated and self-nominated bullying were mediated by aggressive attitudes. Similar research should test if such mediation holds true for parent and peer attachment and other bullying roles, and test other possible mediators such as emotion regulation or social

information processing. Additional studies might want to examine how parent and peer attachment interact to predict being a victim of bullying to see if similar moderating effects occur. Finally, longitudinal work in this area is especially needed to illuminate the developmental pattern of factors that contribute to or buffer against bullying.

Overall, the current results suggest that attachment, especially attachment to the parents, can be influential in the roles adolescents take on during bullying episodes. Given that bullying has become an immense social problem, it is especially important for researchers to figure out what factors contribute to bullying behavior, with the ultimate goal of implementing policies or interventions to eliminate it. The findings of the current study indicate that attachment insecurity, especially with parents, might be one (of many) risk factors of engaging in bullying behaviors. School administrators and counselors can use this information to identify individuals who may be at risk for engaging in bullying involvement and intervene. Interventions may include family programs that train parents how to enhance the parent-child attachment in the hopes of decreasing the children's subsequent bullying involvement. Finally, researchers and administrators alike are attempting to figure out how to get bystanders to intervene in a bullying situation, and the current study indicates that attachment security to parents and peers may actually motivate adolescents to defend a victim.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no competing interests.

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