

---

## From Narcissistic Exploitativeness to Bullying Behavior: The Mediating Role of Approval-of-aggression Beliefs

Rebecca P. Ang, Eileen Y. L. Ong, Joylynn C. Y. Lim, and Eulindra W. Lim, *Nanyang Technological University*

---

### Abstract

*This study examined the role of approval-of-aggression beliefs in the relationship between narcissistic exploitativeness and bullying behavior in an Asian sample (N = 809) comprising elementary children and middle school adolescents. Narcissistic exploitativeness was significantly and positively associated with both bullying behavior and approval-of-aggression beliefs, and approval-of-aggression beliefs was significantly and positively associated with bullying behavior. Additionally, findings indicated that approval-of-aggression beliefs was a statistically significant mediator and 53 percent of the total effect of narcissistic exploitativeness on bullying behavior was mediated by approval-of-aggression beliefs. Approval-of-aggression beliefs did not moderate the association between narcissistic exploitativeness and bullying behavior. There are important theoretical implications as well as implications for prevention and intervention efforts targeting aggressive, bullying behavior among children and adolescents.*

*Keywords:* bullying; narcissistic exploitativeness; approval-of-aggression beliefs

### Introduction

School bullying is an age-old problem and until recently, many viewed this as a transitory issue. However, in the last decade, violent deaths associated with school bullying around the world have highlighted anew the serious and sometimes fatal consequences of bullying behavior. In the USA for example, high-profile school shootings have raised public concern for student safety and sharply increased public awareness of the need for prevention (Nansel et al., 2001; Resnick, Ireland, & Borowsky, 2004). Likewise in Japan, prompted by 10 bullying-related suicides that occurred over the span of one year in the mid-1990s, the Japanese Ministry of Education has increased their efforts to understand the prevalence and characteristics of school bullying as well as to limit its occurrence (Ando, Asakura, & Simons-

This research was supported by the Academic Research Fund Tier 1 grant (RG96/07) awarded to Rebecca P. Ang.

Correspondence should be addressed to Rebecca P. Ang, Division of Psychology, School of Humanities and Social Sciences, Nanyang Technological University, 14 Nanyang Drive, Singapore 637332. Email: [rpang@ntu.edu.sg](mailto:rpang@ntu.edu.sg)

Morton, 2005; Rios-Ellis, Bellamy, & Shoji, 2000). School bullying is usually defined as deliberate, repeated, negative actions intended to cause harm or significant distress by one or more students against a student who has difficulty defending himself or herself (Olweus, 1993; Whitney & Smith, 1993). These negative actions can include verbal bullying (e.g., name calling, taunting), physical bullying (e.g., hitting, taking away someone's possessions), and indirect bullying (e.g., spreading rumors, purposefully isolating or ignoring someone).

### *Narcissistic Exploitativeness and Bullying Behavior*

Interest in narcissism, both clinically and as a normal personality trait, has increased in recent years. Narcissism is a multidimensional construct, and it includes a sense of grandiosity and superiority, a sense of entitlement, exploitation of others for personal gain, lack of empathy for others, and an excessive need for admiration from others (Miller, Campbell, & Pilkonis, 2007; Wink, 1991). Numerous studies support the connections between high levels of narcissism and aggressive behavior in adults (e.g., Martinez, Zeichner, Reidy, & Miller, 2008; Reidy, Zeichner, Foster, & Martinez, 2008; Rhodewalt & Morf, 1995). The link between narcissism and aggressive behavior has also been established in children and adolescents in both Asian and non-Asian samples (e.g., Ang & Yusof, 2005; Barry, Frick, & Killian, 2003; Seah & Ang, 2008). Although there is some research conducted on Asian children and adolescents, these studies are disproportionately fewer than those using North American or other western samples. Collectively, based on previous research, there appears to be a close association between narcissism and aggressive behavior.

Salmivalli, Lagerspetz, Bjorkqvist, Osterman, and Kaukiainen (1996) argued that the definition of school bullying implies that by its nature, bullying behavior is more proactive rather than reactive aggression. Reactive aggression is defined as a hostile and angry response that functions as retaliation to a perceived threat or provocation whereas proactive aggression is defined as instrumental aggressive behavior that occurs without apparent provocation (Dodge & Coie, 1987). Thus, bullying behavior can be considered to be more closely aligned to proactive aggression. Salmivalli (2001) further proposed that the specific narcissistic features such as exploitativeness and lack of empathy motivate people with narcissism to use aggression instrumentally. Developing Salmivalli's ideas further, Fontaine (2007) posited a conceptual framework for proactive aggressive behavior in youth and argued that those youths who are narcissistic and skilled in exploiting others were better able to create opportunities for instrumental antisocial behaviors.

Recent empirical findings support Salmivalli's (2001) hypothesis. There is sufficient research evidence demonstrating the link between specific dimensions of narcissism such as exploitativeness and that of proactive aggression. Washburn, McMahon, King, Reinecke, and Silver (2004) examined the relationship between narcissistic features and proactive and reactive aggression in a sample of sixth- to eighth-grade students. Of the three facets of narcissism tested, only exploitativeness, defined as a willingness and ability to exploit and manipulate other people, was positively associated with proactive aggression. In a different study, Sullivan and Geaslin (2001) found that narcissism accounted for unique variance in predicting aggression even after accounting for the variance associated with other predictor variables. More importantly, they found narcissistic exploitativeness to be positively associated with total aggression as well as the instrumental domain of aggression, otherwise termed as proactive aggression.

Likewise, similar findings have also been reported using Asian samples. Ang and Raine (2009) found narcissistic exploitativeness to be more strongly correlated with proactive aggression than reactive aggression. Furthermore, proactive aggression's correlation with narcissistic exploitativeness was significantly stronger than reactive aggression's correlation with narcissistic exploitativeness. Taken together, there is empirical evidence to suggest a link between narcissistic exploitativeness and bullying behavior.

### *The Role of Approval-of-aggression Beliefs*

Although empirical studies have documented that narcissistic exploitativeness has a significant association with bullying behavior, the mechanisms by which narcissistic exploitativeness exerts its influence remains unclear. In this article, we argue that the effects of narcissistic exploitativeness on bullying behavior are mediated by approval-of-aggression beliefs. Specifically, two areas of research will be reviewed: (1) the influence of narcissistic exploitativeness on approval-of-aggression beliefs and (2) the influence of approval-of-aggression beliefs on bullying behavior. An approval-of-aggression belief is defined as a normative belief that aggression is acceptable (Huesmann, 1988; Huesmann & Guerra, 1997). Normative beliefs in general are individuals' own cognitions about the acceptability or unacceptability of a behavior and serve to regulate actions by prescribing the range of permitted and prohibited behaviors.

*Narcissistic Exploitativeness and Approval-of-aggression Beliefs.* The association between narcissistic exploitativeness and bullying behavior has been established above. Narcissistic exploitativeness could lead to approval-of-aggression beliefs in two possible ways. Firstly, individuals with a tendency for narcissistic exploitativeness would have lowered sympathetic feelings toward the victim, possessing the belief that bullying is fine because these victims do not suffer. Narcissistic exploitativeness is theoretically and empirically linked to callous-unemotional traits and proactive aggression (Barry et al., 2007). Those with narcissistic exploitativeness evidence a disregard for others, an absence of guilt, failure to show empathy, and blunted affect (e.g., Blair, 1999; Frick, Cornell, Barry, Bodin, & Dane, 2003). Secondly, individuals with a tendency for narcissistic exploitativeness could view bullying as a legitimate right. This arises because of narcissists' sense of entitlement and dominance (Baumeister, Smart, & Boden, 1996; Hoover, Oliver, & Hazler, 1992; Owens, Slee, & Shute, 2000; Rigby & Slee, 1991); therefore, bullying behavior could be perceived as a legitimate act. As narcissists feel that they have the right to whatever they want and to have their expectations met regardless of the feelings of others, bullying behavior could be seen as a legitimate and justifiable act.

*Approval-of-aggression Beliefs and Bullying Behavior.* There is ample research evidence documenting that children and adolescents who approve of the use of aggression are rated as more aggressive by parents (e.g., Zelli, Dodge, Lochman, Laird, & Conduct Problems Prevention Research Group, 1999), teachers (e.g., Bellmore, Witkow, Graham, & Juvonen, 2005), and peers (e.g., Erdley & Asher, 1998) than are individuals who do not approve of the use of aggression. For example, Huesmann and Guerra (1997) examined longitudinal associations between normative beliefs supportive of aggression and eventual aggressive, bullying behavior. They found that children's normative beliefs become stable by fourth and fifth grade, and once stable, these

beliefs predict aggressive, bullying behavior through adolescence and beyond. Likewise, Bellmore et al. (2005) found that adolescents who believed in the appropriateness of aggression selected hostile/aggressive response options that resulted in subsequent physical, verbal, and indirect bullying behavior.

Two prominent theoretical models have focused on the role of specific cognitive information-processing operations in accounting for aggressive, bullying behavior. Crick and Dodge's (1994) social information processing model proposed that mental online processing, guided by latent knowledge structures, occurs in a sequence of steps, and biased processing may be responsible for an individual's aggressive behavioral style. Applying this model, Boxer, Goldstein, Musher-Eizenman, Dubow, and Heretick (2005) suggest that a child's temperamental tendencies and social experiences interact through observational and direct learning experiences to produce an enduring set of beliefs or cognitions supportive of aggression that account for habitual bullying behavior. Huesmann's (1988) model proposed that aggressive, bullying behavior is controlled to a large extent by cognitive scripts. According to this model, behaviors suggested by such scripts are filtered through self-regulating beliefs, and normative beliefs supportive of aggression is one such self-regulating belief. Applying this model, Huesmann, Guerra, Miller, and Zelli (1992) found a significant relation between acceptance of aggression and subsequent aggressive, bullying, and delinquent behavior. Collectively, both theoretical models consistently support the argument that beliefs/cognitions precede aggressive, bullying behavior. Results from longitudinal research studies following children from upper elementary school through middle and high school provide empirical support for this argument (Egan, Monson, & Perry, 1998; Keltikangas-Jarvinen & Pakaslahti, 1999).

*An Alternative Model.* We also review empirical evidence for an alternative moderation model. It is plausible that the association between narcissistic exploitativeness and bullying is moderated by high levels of approval-of-aggression beliefs. Bushman and Baumeister (1998) found that the more a narcissist perceived a bad evaluation as threatening, the more aggressively he or she behaved. However, narcissists were not, generally, indiscriminately aggressive in all situations. Baumeister, Bushman, and Campbell (2000) further argued that narcissists' aggression did not differ from that of the other people as long as there was no insulting provocation and concluded that narcissism may not be directly related to bullying, aggressive behavior. If a negative evaluation or provocation was perceived as threatening, it is likely that narcissists would perceive bullying behavior as legitimate and justifiable. Extending this research further, in a laboratory study, Reidy et al. (2008) examined multiple narcissism sub-factors and demonstrated that it was specifically narcissistic exploitativeness and entitlement that best predicted all measures of aggression. They further acknowledged that their study did not assess the cognitive variables that may have moderated the relationship between narcissistic exploitativeness and measures of aggressive behavior. Taken together, there is some evidence to suggest that narcissistic exploitativeness would be expected to be associated with bullying only when accompanied by high levels of approval-of-aggression beliefs.

#### *Present Study and Predictions*

The objective of this study was to propose and test two models. The first model posits that approval-of-aggression beliefs mediated the relationship between narcissistic

exploitativeness and bullying behavior. Four predictions were examined. Firstly, we expected narcissistic exploitativeness to be significantly and positively associated with bullying behavior. Secondly, we expected narcissistic exploitativeness to be significantly and positively related to approval-of-aggression beliefs. Thirdly, we expected a significant and positive association between approval-of-aggression beliefs and bullying behavior. Finally, we expected approval-of-aggression beliefs to mediate the relationship between narcissistic exploitativeness and bullying behavior. The second model posits that approval-of-aggression beliefs moderated the association between narcissistic exploitativeness and bullying behavior. Specifically, narcissistic exploitativeness would be associated with bullying behavior only when it is also accompanied by high levels of approval-of-aggression beliefs. In the absence of approval-of-aggression beliefs, we do not expect a relationship between narcissistic exploitativeness and bullying.

## **Method**

### *Participants*

The elementary school sample consisted of 463 children (241 males, 219 females; 3 did not provide information on gender) from one elementary school in Singapore. Only grades 4 and 5 children were eligible to participate in the study because children before middle/late childhood often lack the metacognitive skills to allow them to report their own attitudes and behaviors, and normative beliefs about aggression and aggressive behavior only become moderately stable at around fourth grade (Huesmann & Guerra, 1997). Children from grades 4 and 5 classes were randomly selected to participate in the study. The age of the participants ranged from 9 to 13 years ( $M = 10.62$ ,  $SD = .71$ ). Of the 463 children, 46.9 percent were from grade 4 classes ( $N = 217$ ) and 53.1 percent were from grade 5 classes ( $N = 246$ ). Self-reported ethnic identification for the sample was as follows: 57.8 percent of the participants were Chinese, 8.2 percent were Indian, 28.9 percent were Malay, and 5.1 percent endorsed Others (all other ethnic groups not listed).

The middle school sample consisted of 346 adolescents (181 males, 160 females; 5 did not provide information on gender) from one middle school in Singapore. Adolescents from all three grade levels in the middle school were eligible to participate in the study. These adolescents were randomly selected to participate in the study. The age of the participants ranged from 12 to 16 years ( $M = 13.89$ ,  $SD = 1.05$ ). Of the 346 adolescents, 34.4 percent were from grade 6 classes ( $N = 119$ ), 33.5 percent were from grade 7 classes ( $N = 116$ ), and 32.1 percent were from grade 8 classes ( $N = 111$ ). Self-reported ethnic identification for the sample was as follows: 57.5 percent of the participants were Chinese, 7.2 percent were Indian, 21.7 percent were Malay, 12.5 percent endorsed Others (all other ethnic groups not listed), and 1.1 percent did not provide information on ethnicity.

For both samples, SES data were not collected. Both schools are government schools situated within neighborhood residential estates, and government schools are the most common type of schools in Singapore. Given that only one elementary and one middle school participated in this study, the sample is not a representative one. However, children and adolescents from each school were randomly selected to participate in the study, and ethnic identifications reported reflected those of the larger school population.

### *Consent and Procedure*

Following the routine procedure for ethical clearance and data collection from schools in Singapore, permission was sought and approval obtained from the Ministry of Education in Singapore and from both schools prior to conducting the research. A passive consent procedure was used to obtain children's and adolescents' participation from parents. All parents in the participating schools and appropriate grade levels were informed about the date and nature of the study well in advance of the scheduled questionnaire administration. Parents were requested to contact the school if they did not want their child or adolescent to participate in the study. None of the parents withheld their consent. Assent was also required from the child/adolescent participants. Six children (1.3 percent) and four adolescents (1.1 percent) from the elementary and middle school samples, respectively, were absent on the day of questionnaire administration, and they did not participate in the study. The researchers administered the measures in classrooms and were present to attend to student queries. Participation was strictly voluntary and participants were explicitly informed that they could refuse or discontinue the study at any time without penalty. The questionnaire was administered in English. No translation is needed as English is the main language of instruction for schools in Singapore.

### *Measures*

*Narcissistic Personality Questionnaire for Children-Revised (NPQC-R)*. The 12-item NPQC-R (Ang & Raine, 2009) measures narcissism as a personality trait in children and adolescents. Children and adolescents rated items on a Likert scale from 1 (*not at all like me*) to 5 (*completely like me*). Higher scores indicate individuals' endorsement that these narcissistic traits are very much descriptive of themselves. The NPQC-R yields two subscale scores: Superiority (six items) and Exploitativeness (six items). A total NPQC-R score can also be calculated. For the purposes of this study, only the Exploitativeness subscale of the NPQC-R was used, and a sample item reads as follows: 'I am good at getting people to do things my way'. The possible range of scores for the Exploitativeness subscale would be from 6 to 30. Adequate Cronbach alpha reliability estimates were obtained for Exploitativeness in both the elementary school ( $\alpha = .74$ ) and middle school ( $\alpha = .79$ ) samples. The validity of NPQC-R scores (Ang & Raine, 2009) have been shown through demonstrating expected relationships with established scales such as reactive proactive questionnaire (Raine, Dodge, Loeber, Reynolds, & Loeber, 2006).

*Normative Beliefs about Aggression Scale (NOBAGS)*. The 20-item NOBAGS (Huesmann & Guerra, 1997) measures children's beliefs about the acceptability of aggression and aggressive behavior under varying conditions of provocation (e.g., 'If a boy says something bad to another boy, John. Do you think it is OK for John to hit him?') and when no conditions are specified (e.g., 'It is usually OK to push or shove people around if you are angry'). Children and adolescents responded to each belief item on a four-point scale by indicating whether the behavior was '*perfectly OK*', '*sort of OK*', '*sort of wrong*', or '*really wrong*'. Higher scores indicate greater endorsement of approval of aggression. For the current study, only the total score was used. The possible range of scores for NOBAGS total would be from 0 to 60. Good Cronbach alpha reliability estimates were obtained for both the elementary school ( $\alpha = .90$ ) and



middle school ( $\alpha = .87$ ) samples. Scores from the widely used NOBAGS have been shown to predict aggressive behavior rated by parents, teachers, and peers (e.g., Zelli et al., 1999).

*Bullying Questionnaire.* A seven-item bullying questionnaire was used to measure bullying behavior in this study. This bullying questionnaire is similar to the one used by established UK researchers studying bullying such as Jolliffe and Farrington (2006) and Whitney and Smith (1993). Direct bullying items included three physical (e.g., 'I physically hurt someone', e.g., hit, kick) and two verbal (e.g., 'I called someone a bad name because of his/her looks') bullying items as well as two indirect (e.g., 'I spread rumors about someone') bullying items. The power difference between the perpetrator and the victim was explained to the children and adolescents when the researchers gave instructions prior to the questionnaire administration. Children and adolescents could indicate on a five-point scale whether they engaged in these bullying acts 'once or twice this year', 'a few times this year', 'about once every week', 'about a few times every week' or if they have 'never' bullied others. A total bullying score can be calculated. All items measured the prevalence and frequency of bullying in the current school year, with higher scores indicating greater prevalence and frequency of such acts. The possible range of scores would be from 7 to 35. The questionnaire was administered between 10 and 11 months into the school year which was close to the end of the school year. Adequate Cronbach alpha reliability estimates were obtained for both the elementary school ( $\alpha = .73$ ) and middle school ( $\alpha = .80$ ) samples.

#### *Analytic Procedure*

Data for the combined elementary and middle school samples ( $N = 809$ ) were analyzed according to Baron and Kenny's (1986) and Holmbeck's (1997) conceptual and statistical recommendations for assessing the presence of mediator effects. Three equations were tested using multiple regression. Firstly, bullying behavior was regressed on narcissistic exploitativeness to establish that there was an effect to mediate (path c in Figure 1a). Secondly, approval-of-aggression beliefs was regressed on narcissistic exploitativeness to establish path a (see Figure 1b) in the mediational chain. In the third equation, bullying behavior was regressed on both narcissistic exploitativeness and approval-of-aggression beliefs. This provided a test of whether approval-of-aggression beliefs was related to bullying behavior (path b) and an estimate of the relation between narcissistic exploitativeness and bullying behavior controlling for approval-of-aggression beliefs (path c'). To demonstrate that approval-of-aggression beliefs functioned as a mediator in this model, the strength of the relation between the predictor (e.g., narcissistic exploitativeness) and the outcome (e.g., bullying behavior) should be significantly decreased (compare path c in Figure 1a with path c' in Figure 1b).

The statistical significance of this decrement in predictive power can be tested (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004). The difference in paths c and c' is equal to the product of paths a and b, and the statistical significance of the difference between c and c' can be estimated by testing the significance of the products of paths a and b. Specifically, you divide the product of paths a and b by a standard error term (Frazier et al., 2004). We used the standard error term used by Baron and Kenny (1986): the square root of  $b^2sa^2 + a^2sb^2 + sa^2sb^2$ , where *a* and *b* are unstandardized

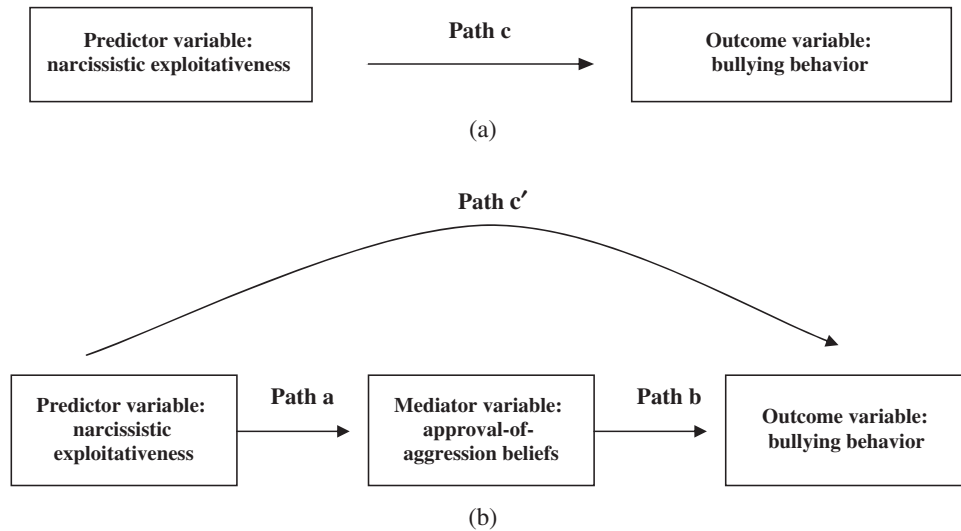


Figure 1. Diagram of Paths in the Hypothesized Mediation Model.

regression coefficients and  $sa$  and  $sb$  are their standard errors. The mediated effect divided by its standard error yields a  $z$ -score of the mediated effect, and the effect is statistically significant at the .05 level if the  $z$ -score is greater than 1.96. A 95 percent confidence interval around the estimated effect can be calculated, and the formula is as follows: product of paths  $a$  and  $b \pm s_{ab}z_{.975}$ , where  $z_{.975}$  is equal to the constant 1.96 and  $s_{ab}$  is the standard error term calculated earlier (Shrout & Bolger, 2002). Shrout and Bolger (2002) also suggested another way of describing the amount of mediation, which is in terms of the proportion of the total effect that is mediated as defined by  $ab/c$ . This method does not test the statistical significance of the mediated effect; rather, it provides a way of describing the amount of mediation.

A moderation model was also tested. The relation between narcissistic exploitativeness and bullying could depend on approval-of-aggression beliefs. Moderational analyses and the testing of the interaction effect followed the recommendations of Aiken and West (1991) and Cohen, Cohen, West, and Aiken (2003). In the first step, the main effects of narcissistic exploitativeness and approval-of-aggression beliefs were entered. This was followed in the second step by the addition of the interaction effect. Narcissistic exploitativeness and approval-of-aggression beliefs were centered using the sample mean prior to creating the interaction term and entering them into the regression equation.

## Results

Preliminary analyses indicated that the data were positively skewed and a square root transformation was applied to the data prior to all data analyses (Tabachnick & Fidell, 2001). The skewness values range from .56 to 1.29, with a standard error of skewness value of .09. Absolute values of greater or equal to two standard errors of skewness can be considered skewed to a significant degree (Tabachnick & Fidell, 2001). Table 1 presents the means,  $SD$ s, and inter-correlations of all variables in the present study. Children's and adolescents' self-report of narcissistic exploitativeness was



**Table 1. Means, Standard Deviations (SDs), and Inter-correlations for Study Variables**

Variable	<i>M</i>	<i>SD</i>	1	2	3
Narcissistic exploitativeness	3.67	.61	—	.24**	.19**
Approval-of-aggression beliefs	3.32	1.66		—	.43**
Bullying behavior	3.38	.60			—

*Note:* The minimum and maximum scores for narcissistic exploitativeness (2.25, 5.49), approval of aggression beliefs (0, 7.55), and bullying behavior (2.45, 5.92) are reported in parentheses. \*\*  $p < .01$ .

**Table 2. Testing the Hypothesized Model with Approval-of-aggression Beliefs as a Mediator Using Multiple Regression**

Steps in testing for mediation	<i>B</i>	<i>SE B</i>	95% CI	$\beta$
Testing step 1 (path c)				
Outcome: bullying behavior				
Predictor: narcissistic exploitativeness	.18	.04	.12, .25	.19**
Testing step 2 (path a)				
Outcome: approval-of-aggression beliefs				
Predictor: narcissistic exploitativeness	.65	.09	.47, .83	.24**
Testing step 3 (paths b and c')				
Outcome: bullying behavior				
Mediator: approval-of-aggression beliefs (path b)	.15	.01	.13, .17	.41**
Predictor: narcissistic exploitativeness	.09	.09	.02, .15	.09*

*Note:* CI = confidence interval.  
\*  $p < .05$ , \*\*  $p < .01$ .

significantly correlated with both approval-of-aggression beliefs and bullying behavior in the expected direction: narcissistic exploitativeness was positively correlated with both approval-of-aggression beliefs ( $r = .24, p < .01$ ; Cohen's  $d = .49$ ) and bullying behavior ( $r = .19, p < .01$ ; Cohen's  $d = .39$ ). Approval-of-aggression beliefs was also positively correlated with bullying behavior ( $r = .43, p < .01$ ; Cohen's  $d = .95$ ) as expected.

Table 2 presents the analyses necessary to test the hypothesized model with approval-of-aggression beliefs as a mediator. Narcissistic exploitativeness was significantly associated with bullying behavior ( $B = .18, \beta = .19, p < .01$ ), path c was significant and requirement for mediation in step 1 was met. Narcissistic exploitativeness was also significantly associated with approval-of-aggression beliefs ( $B = .65, \beta = .24, p < .01$ ), and thus the condition for step 2 was met (path a was significant). Approval-of-aggression beliefs was significantly associated with bullying behavior controlling for narcissistic exploitativeness ( $B = .15, \beta = .41, p < .01$ ). Path b was significant and condition for step 3 was met. This third regression equation also provided an estimate of path c', the relation between narcissistic exploitativeness and

bullying behavior, controlling for approval-of-aggression beliefs. There was a reduction in path  $c'$  ( $B = .09$ ,  $\beta = .09$ ,  $p < .05$ ), indicating mediation.

For our study, the  $z$ -score was calculated to be 6.06 (95 percent confidence interval, = .06, .13); thus, approval-of-aggression beliefs was a statistically significant mediator. The 95 percent CI does not include zero, and this is consistent with the conclusion that there is mediation (i.e., the mediated effect is not zero). Additionally, 53 percent of the total effect of narcissistic exploitativeness on bullying behavior was mediated by approval-of-aggression beliefs.

A moderation model was also tested. Only the main effects of narcissistic exploitativeness and approval-of-aggression beliefs were significant. The increase in the amount of variance explained ( $\Delta R^2$ ) in Step 2 was tested for significance. There was no statistically significant interaction effect,  $\Delta R^2 = .00$ ,  $\Delta F(1, 805) = .176$ , NS. Approval-of-aggression beliefs did not moderate the relationship between narcissistic exploitativeness and bullying behavior ( $\beta = .01$ , NS).

## Discussion

The findings of the present study demonstrated that approval-of-aggression beliefs mediated the relationship between narcissistic exploitativeness and bullying behavior in an Asian sample comprising children and adolescents. In the present study, approval-of-aggression beliefs was a statistically significant mediator and 53 percent of the total effect of narcissistic exploitativeness on bullying behavior was mediated by approval-of-aggression beliefs. Additionally, we tested an alternative moderation model and found that approval-of-aggression beliefs did not moderate the relationship between narcissistic exploitativeness and bullying behavior. Taken together, for this sample, it appears that bullying behavior is not a consequence of the joint influence of narcissistic exploitativeness and approval-of-aggression beliefs. However, study findings reveal the mechanism of action by which narcissistic exploitativeness exerts its influence on bullying behavior. The effect of narcissistic exploitativeness on bullying behavior does not occur via a direct pathway; rather, narcissistic exploitativeness influences approval-of-aggression beliefs, which, in turn, influences bullying behavior.

Our results are consistent with available research and theoretical evidence suggesting links between narcissistic exploitativeness and bullying behavior (e.g., Salmivalli, 2001; Washburn et al., 2004), between narcissistic exploitativeness and approval-of-aggression beliefs (e.g., Baumeister et al., 1996; Owens et al., 2000), and between approval-of-aggression beliefs and bullying behavior (e.g., Bellmore et al., 2005; Huesmann & Guerra, 1997). So far, these relationships have been examined somewhat in isolation and to date, there is still limited research on this topic area using child and adolescent samples. Additionally, based on our knowledge, this is the first study to analyze this pattern of relationships and to specifically test this mediational model using an Asian sample.

These present findings make theoretical contributions to the literature, and an important component of theory building involves testing the generalizability of findings across different cultures, subgroups, or populations (Leung & Zhang, 1995; Oei, 1998; Stern & Kalof, 1996). Results suggest that specific dimensions of narcissism such as exploitativeness is linked to approval-of-aggression beliefs and bullying behavior. Salmivalli (2001) posited that specific narcissistic features such as exploitativeness motivate people with narcissism to use aggression instrumentally, and empirical evidence using North American and western samples have found support for this

association (e.g., Washburn et al., 2004). More recently, Ang and Raine (2009) found similar associations between narcissistic exploitativeness and proactive aggression. Building upon this body of research and extending it cross-culturally, the present findings reveal the link between exploitativeness and bullying behavior, a construct closely aligned to proactive rather than reactive aggression. Future research could test whether certain facets of narcissism are specifically and uniquely associated with different forms of aggression.

These findings have potentially important implications for prevention and intervention efforts targeting aggressive, bullying behavior among children and adolescents. Sometimes, prevention and intervention efforts target only at changing certain traits or attitudes. While this may be successful in reducing aggressive, bullying behavior in the short term, longer lasting effects depend on altering children's and adolescents' underlying cognitions such as approval-of-aggression beliefs. Past researchers have found cognitive mechanisms to be important change agents to modifying aggressive, bullying behaviors (e.g., Conduct Problems Prevention Research Group, 1999; Van Schoiack-Edstrom, Frey, & Beland, 2002; Werner & Nixon, 2005). Targeting beliefs or belief systems that endorse or approve of aggression is also needed. Although researchers acknowledge that approval-of-aggression beliefs are not always easy to modify, they are nevertheless malleable. Taken together, targeting both narcissistic exploitativeness and approval-of-aggression beliefs conjointly may appear to yield the greatest benefits.

Building empathy or empathy training could be one potentially effective route to reducing bullying behavior. Empathy may moderate the relationship between approval-of-aggression beliefs and bullying. In fact, there is ample research documenting the relationship between low empathy and high aggression (e.g., Björkqvist, Österman, & Kaukiainen, 2000; Jolliffe & Farrington, 2006; Miller & Eisenberg, 1988). More specifically, empathy can be viewed as a cognitive trait (Hogan, 1969) or an affective trait (Mehrabian & Epstein, 1972) or both (Cohen & Strayer, 1996). Gianluca, Paolo, Beatrice, and Gianmarco (2007) posited that individuals with high levels of empathy will seek to reduce the negative emotions experienced by others for either egoistic or altruistic reasons, through a cognitive or an affective mechanism.

Separately, Baumeister et al. (1996) posited in their theory of threatened egotism that egotism typically manifested by narcissists, in response to ego threat, leads to aggression. So far, what appears missing from this line of research is a strategy for attenuating the link between threatened egotism and aggression. Recently, Konrath, Bushman, and Campbell (2006) found in their experimental study that when participants believed that they shared a key similarity with a fellow participant, narcissistic aggression was completely attenuated, even under ego threat. It appears that having an interpersonal connection with the ego threatener (but not one that is so specialized that it would threaten the narcissist) might result in lower levels of narcissistic aggression. Further research is still needed, but preliminary evidence suggests that this could be a viable route to target bullying behavior. Learning to build interpersonal connections with others, coupled with empathy training, may be a promising route for prevention and intervention efforts.

A few limitations of the study warrant comment. Although our data provided support for a mediational model where constructs influence each other in the manner described, given the concurrent nature of our design, what cannot be conclusively determined is whether the sequence described by our hypothesized model is temporally correct. Future studies need to test the adequacy of our model using longitudinal

designs. It is also possible that the correlations between narcissistic exploitativeness, approval-of-aggression beliefs, and bullying behavior are inflated due to shared method variance. However, for example, previous studies have found children's and adolescents' cognitions to be significantly related to aggressive behavior using peer nominations and teacher reports (e.g., Zelli et al., 1999). Although it appears likely that a relationship does exist between children's and adolescents' approval-of-aggression beliefs and their reported aggressive behavior, it is prudent that the current findings be replicated using multiple methods and multiple informants. Another concern is that of omitted variables. On the basis of previous empirical and theoretical evidence, the present investigation focused on approval-of-aggression beliefs as a mediator of the relationship between narcissistic exploitativeness and bullying behavior. It is possible that other variables not included in the present study could be stronger mediators of the relationship between narcissistic exploitativeness and bullying behavior. Also, there may be unexamined socialization factors that may have played a larger role in the development of approval-of-aggression beliefs beyond the influence of narcissistic exploitativeness. Finally, sole reliance on self-report measures may affect children's and adolescents' willingness to accurately report their beliefs, traits, and behaviors. Even though children and adolescents completed the questionnaires anonymously, the potential influence of social desirability cannot be totally discounted.

These limitations notwithstanding, the current study extended past research by examining the mediating role of children's and adolescents' approval-of-aggression beliefs in accounting for the association between narcissistic exploitativeness and bullying behavior. These findings may be particularly helpful in designing intervention programs that focus on cognitive-behavioral strategies toward preventing aggressive and bullying behavior in children and adolescents. Results suggest that it might profit such programs to target both narcissistic exploitativeness and approval-of-aggression beliefs for change. Approval-of-aggression beliefs appear to be the mechanism through which narcissistic exploitativeness exerts its influence on bullying behavior; these beliefs are malleable and represent a promising direction for future prevention and intervention efforts.

## References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage Publications.
- Ando, M., Asakura, T., & Simons-Morton, B. (2005). Psychosocial influences on physical, verbal, and indirect bullying among Japanese early adolescents. *Journal of Early Adolescence, 25*, 268–297.
- Ang, R. P., & Raine, A. (2009). Reliability, validity and invariance of the narcissistic personality questionnaire for children-revised (NPQC-R). *Journal of Psychopathology and Behavioral Assessment, 31*, 143–151.
- Ang, R. P., & Yusof, N. (2005). The relationship between aggression, narcissism, and self-esteem in Asian children and adolescents. *Current Psychology, 24*, 113–122.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1192.
- Barry, C. T., Frick, P. J., & Killian, A. L. (2003). The relation of narcissism and self-esteem to conduct problems in children: A preliminary investigation. *Journal of Clinical Child and Adolescent Psychology, 32*, 139–152.
- Barry, T. D., Thompson, A., Barry, C. T., Lochman, J. E., Adler, K., & Hill, K. (2007). The importance of narcissism in predicting proactive and reactive aggression in moderately to highly aggressive children. *Aggressive Behavior, 33*, 185–197.

- Baumeister, R. F., Bushman, B. J., & Campbell, W. K. (2000). Self-esteem, narcissism, and aggression: Does violence result from low self-esteem or from threatened egotism? *Current Directions in Psychological Science*, 9, 26–29.
- Baumeister, R. F., Smart, L., & Boden, J. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review*, 103, 5–33.
- Bellmore, A. D., Witkow, M. R., Graham, S., & Juvonen, J. (2005). From beliefs to behavior: The mediating role of hostile response selection in predicting aggression. *Aggressive Behavior*, 33, 453–472.
- Björkqvist, K., Österman, K., & Kaukiainen, A. (2000). Social intelligence – empathy = aggression? *Aggression and Violent Behavior*, 5, 191–200.
- Blair, R. J. R. (1999). Responsiveness to distress cues in the child with psychopathic tendencies. *Personality and Individual Differences*, 27, 135–145.
- Boxer, P., Goldstein, S. E., Musher-Eizenman, D., Dubow, E. F., & Heretick, D. (2005). Developmental issues in school-based aggression prevention from a social-cognitive perspective. *The Journal of Primary Prevention*, 26, 383–400.
- Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology*, 75, 219–229.
- Cohen, D., & Strayer, J. (1996). Empathy in conduct-disordered and comparison youth. *Developmental Psychology*, 32, 988–998.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Conduct Problems Prevention Research Group. (1999). Initial impact of the fast track prevention trial for conduct problems: II classroom effects. *Journal of Consulting and Clinical Psychology*, 67, 648–657.
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74–101.
- Dodge, K. A., & Coie, J. D. (1987). Social-information-processing factors in reactive and proactive aggression in children's peer groups. *Journal of Personality and Social Psychology*, 53, 1146–1158.
- Egan, S. K., Monson, T. C., & Perry, D. G. (1998). Social-cognitive influences on change in aggression over time. *Developmental Psychology*, 34, 996–1006.
- Erdley, C. A., & Asher, S. R. (1998). Linkages between children's beliefs about the legitimacy of aggression and their behavior. *Social Development*, 7, 321–339.
- Fontaine, R. G. (2007). Toward a conceptual framework of instrumental antisocial decision-making and behavior in youth. *Clinical Psychology Review*, 27, 655–675.
- Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51, 115–134.
- Frick, P. J., Cornell, A. H., Barry, C. T., Bodin, S. D., & Dane, H. E. (2003). Callous-unemotional traits and conduct problems in the prediction of conduct problem severity, aggression, and self-report of delinquency. *Journal of Abnormal Child Psychology*, 31, 457–470.
- Gianluca, G., Paolo, A., Beatrice, B., & Gianmarco, A. (2007). Does empathy predict adolescents' bullying and defending behavior. *Aggressive Behavior*, 33, 467–476.
- Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology*, 33, 307–316.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65, 599–610.
- Hoover, J. H., Oliver, R., & Hazler, R. J. (1992). Bullying: Perceptions of adolescent victims in the Midwestern USA. *School Psychology International*, 13, 5–16.
- Huesmann, L. R. (1988). An information-processing model for the development of aggression. *Aggressive Behavior*, 14, 13–24.
- Huesmann, L. R., & Guerra, N. G. (1997). Children's normative beliefs about aggression and aggressive behavior. *Journal of Personality and Social Psychology*, 72, 408–419.
- Huesmann, L. R., Guerra, N. G., Miller, L., & Zelli, A. (1992). The role of social norms in the development of aggression. In H. Zuckerman, & A. Fraczek (Eds.), *Socialization and aggression* (pp. 139–151). New York: Springer-Verlag.



- Jolliffe, D., & Farrington, D. P. (2006). Examining the relationship between low empathy and bullying. *Aggressive Behavior, 32*, 540–550.
- Keltikangas-Jarvinen, L., & Pakaslahti, L. (1999). Development of social problem-solving strategies and changes in aggressive behavior: A 7-year follow-up from childhood to late adolescence. *Aggressive Behavior, 25*, 269–279.
- Konrath, S., Bushman, B. J., & Campbell, W. K. (2006). Attenuating the link between threatened egotism and aggression. *Psychological Science, 17*, 995–1001.
- Leung, K., & Zhang, J. X. (1995). Systemic considerations: Factors facilitating and impeding the development of psychology in developing countries. *International Journal of Psychology, 30*, 691–706.
- Martinez, M. A., Zeichner, A., Reidy, D. E., & Miller, J. D. (2008). Narcissism and displaced aggression: Effects of positive, negative, and delayed feedback. *Personality and Individual Differences, 44*, 140–149.
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality, 40*, 525–543.
- Miller, J. D., Campbell, W. K., & Pilkonis, P. A. (2007). Narcissistic personality disorder: Relations with distress and functional impairment. *Comprehensive Psychiatry, 48*, 170–177.
- Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin, 103*, 324–344.
- Nansel, T. R., Overpeck, M., Pilla, R. S., Ruan, W. J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behaviors among US youth: Prevalence and association with psychosocial adjustment. *Journal of American Medical Association, 285*, 2094–2100.
- Oei, T. P. (Ed.). (1998). *Behavior therapy and cognitive behavior therapy in Asia*. Gelbe: Edumedia.
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Oxford: Blackwell Publishers.
- Owens, L., Slee, P., & Shute, R. (2000). 'It hurts a hell of a lot . . .': The effects of indirect aggression on teenage girls. *School Psychology International, 21*, 359–376.
- Raine, A., Dodge, K., Loeber, R., Reynolds, C., & Loeber, M. (2006). Proactive and reactive aggression in adolescents: Development of a self-report scale and initial construct validity. *Aggressive Behavior, 32*, 159–171.
- Reidy, D. E., Zeichner, A., Foster, J. D., & Martinez, M. A. (2008). Effects of narcissistic entitlement and exploitativeness on human physical aggression. *Personality and Individual Differences, 44*, 865–875.
- Resnick, M. D., Ireland, M., & Borowsky, I. (2004). Youth violence perpetration: What protects? What predicts? Findings from the National Longitudinal Study of Adolescent Health. *Journal of Adolescent Health, 35*, 424.e1–424.e10.
- Rhodewalt, F., & Morf, C. C. (1995). Self and interpersonal correlates of the narcissistic personality inventory: A review and new findings. *Journal of Research in Personality, 29*, 1–23.
- Rigby, K., & Slee, P. T. (1991). Bullying among Australian school children: Reported behavior and attitudes toward victims. *Journal of Social Psychology, 131*, 615–627.
- Rios-Ellis, B., Bellamy, L., & Shoji, J. (2000). An examination of specific types of *ijime* within Japanese schools. *School Psychology International, 21*, 227–241.
- Salmivalli, C. (2001). Feeling good about oneself, being bad to others? Remarks on self-esteem, hostility, and aggressive behavior. *Aggression and Violent Behavior, 6*, 375–393.
- Salmivalli, C., Lagerspetz, K. M. J., Bjorkqvist, K., Osterman, K., & Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior, 22*, 1–15.
- Seah, S. L., & Ang, R. P. (2008). Differential correlates of reactive and proactive aggression in Asian adolescents: Relations to narcissism, anxiety, schizotypal traits, and peer relations. *Aggressive Behavior, 34*, 553–562.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*, 422–445.
- Stern, P. C., & Kalof, L. (1996). *Evaluating social science research* (2nd ed.). New York: Oxford University Press.
- Sullivan, B. F., & Geaslin, D. L. (2001). The role of narcissism, self-esteem, and irrational beliefs in predicting aggression. *Journal of Social Behavior and Personality, 16*, 53–68.



- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Needham Heights, MA: Allyn & Bacon.
- Van Schoiack-Edstrom, L., Frey, K. S., & Beland, K. (2002). Changing adolescents' attitudes about relational and physical aggression: An early evaluation of a school-based intervention. *School Psychology Review, 31*, 201–217.
- Washburn, J. J., McMahon, S. D., King, C. A., Reinecke, M. A., & Silver, C. (2004). Narcissistic features in young adolescents: Relations to aggression and internalizing symptoms. *Journal of Youth and Adolescence, 33*, 247–260.
- Werner, N. E., & Nixon, C. L. (2005). Normative beliefs and relational aggression: An investigation of the cognitive bases of adolescent aggressive behavior. *Journal of Youth and Adolescence, 34*, 229–243.
- Whitney, I., & Smith, P. K. (1993). A survey of the nature and extent of bully/target problems in junior/middle and secondary schools. *Educational Research, 35*, 3–25.
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology, 61*, 590–597.
- Zelli, A., Dodge, K. D., Lochman, J. E., Laird, R. D., & Conduct Problems Prevention Research Group. (1999). The distinction between beliefs legitimizing aggression and deviant processing of social cues: Testing measurement validity and the hypothesis that biased processing mediates the effects of beliefs on aggression. *Journal of Personality and Social Psychology, 77*, 150–166.