Associations Between Self-Esteem and the Forms and Functions of Aggression in a Community Sample of Youth

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ASSOCIATIONS BETWEEN SELF-ESTEEM AND THE FORMS AND FUNCTIONS OF AGGRESSION IN A COMMUNITY SAMPLE OF YOUTH

An Honors Thesis

Presented to

the Department of Psychology

of the University of New Orleans

In Partial Fulfillment

of the Requirements for the Degree of Bachelor of Science, With University Honors and Honors is Psychology

by

Miklós Balázs Halmos

December 2012
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Abstract

The purpose of the current study is to examine the association between self-esteem and the forms and functions of aggression. Research supports the existence of four aggressive subtypes (i.e., reactive overt, reactive relational, proactive overt, and proactive relational), and past research has found associations between aggression and self-esteem. However, past studies have not examined the relationships between all four subtypes of aggression and self-esteem together. 141 adolescents were recruited from the community with a mean age of 13.55. The sampled group was composed of 51% females and 52% Caucasians. Participants completed self-report questionnaires on self-esteem and aggression. The results provide support for an association between proactive aggression and self-esteem. Additionally, overt aggression was more associated with self-esteem than relational aggression. These findings will help fill the gap in literature on the forms and functions of aggression and will further define the relationship between aggression and self-esteem.

Keywords: relational aggression, reactive aggression, self-esteem, adolescents
Aggression and Self-Esteem in Youth

Associations Between Self-Esteem and the Forms and Functions of Aggression in a Community Sample of Youth

Aggression in youth is associated with a number of prominent social and psychological problems including conduct problems, anxiety, and delinquency (Marsee et al., 2011). In addition, research has also shown that aggressive youths display problems with self-esteem (Locke, 2009). However, the literature is mixed on whether aggression is more strongly associated with low self-esteem (Donnellan et al., 2005; McCarrol et al., 2009) or with atypically high levels of self-esteem (Thomaes et al., 2008; Goldberg et al., 2007). Several review studies found inconclusive results and call for further research (Diamantopoulou, Rydell & Henricsson, 2008; Perez, Vohs & Joiner, Jr., 2005; Ang & Yusof, 2005; Ostrowsky, 2010).

Research seems to suggest that associations between aggression and self-esteem may be related to the form of aggression that youth engage in (i.e. overt versus relational; Prinstein, Boergers, & Vernberg, 2001). Thus, one purpose of the current study is to examine the association between self-esteem and these forms of aggression in a community sample of youth. Given that overt and relational aggression can serve different functions (i.e., reactive and proactive; Mathieson & Crick, 2010), this study will also examine whether self-esteem is differentially correlated with the functional subtypes of overt and relational aggression.

Aggression in youth has been categorized according to the form of the aggressive act. Overt or physical aggression is defined as physical acts intended to harm others (Marsee, Weems & Taylor, 2008). Relational aggression is defined as the act of harming another person through peer relations, such as excluding from peer groups or denying friendship (Marsee et al., 2011). A meta-analysis of child and adolescent studies by Card et al. (2008) found overt aggression to be more strongly correlated to externalizing problems (i.e. inattention, hyperactivity, defiant
behaviors) and relational aggression to be more strongly related with internalizing problems (i.e. depression, anxiety).

Recent research suggests that relational and overt aggression can be further divided by function into reactive and proactive subtypes in children and adolescents (Marsee et al., 2011; Marsee & Frick, 2007). Reactive aggression is defined as aggression that is impulsive and occurs as a response to a threat. Proactive aggression is defined as planned aggressive acts for gain or control over others (Crapanzano, Frick & Terranova, 2009). Importantly, these subtypes show differential correlates, suggesting that they may represent unique developmental pathways and require distinct treatment approaches (Marsee & Frick, 2010). For example, Mathieson and Crick (2010) studied the subtypes of relational aggression and their links to adjustment in a sample of children in the third and fourth grade. The researchers found that reactive relational aggression was correlated with current internalizing problems as measured by the Teacher’s Report Form (Achenbach, 1991). Additionally, Marsee et al. (2011) found both reactive and proactive relational aggression to be significantly correlated with delinquency in a community sample of adolescents. The researchers also found proactive relational aggression to be strongly correlated with callous/unemotional traits while reactive was not. Lastly, Marsee and Frick (2007) examined the forms and functions of aggression in a sample of detained adolescent girls. They found that reactive aggression was associated with poor emotional regulation and anger while proactive aggression was associated with callous/unemotional traits.

While research has examined the cognitive, emotional, and behavioral correlates of reactive and proactive relational and overt aggression, little information is available regarding whether these subtypes are uniquely correlated with self-esteem. A sizable body of research supports a link between low self-esteem and overt aggression (Donnelan et al., 2005; Murphy,
Stosny & Morrel, 2005). However, much less is known about the association between self-esteem and relational aggression. One exception is a study by Golmaryami and Barry (2010) which found peer-nominated relational aggression to be correlated with higher levels of self-esteem in adolescents. In contrast, Weber and Kurpius (2011) found relational aggression to be correlated with lower levels of self-esteem in a sample of college students. These contradictory but important findings suggest that in contrast to physically aggressive youth who show low self-esteem, some relationally aggressive youth may show both higher and lower levels of self-esteem. One potential reason for these discrepant findings may be that reactive and proactive relational aggression may show differential associations with self-esteem.

A literature review found no current studies to date examining associations between self-esteem and reactive and proactive relational aggression. A study by T. Barry et al. (2007) in a sample of children (mean age = 10 years, 9 months) found that self-reported self-esteem was significantly negatively correlated with both reactive and proactive physical aggression; however, associations with relational aggression were not examined. This gap in the literature warrants further investigation.

The purpose of this study is to better understand the link between the forms and functions of aggression and self-esteem. It is hypothesized that reactive relational aggression will be correlated with lower levels of self-esteem versus proactive relational aggression. This idea is supported by recent literature linking reactive aggression to more social problems and maladjustment (e.g., anxiety) compared to proactive aggressive (Card & Little, 2006). For example, Marsee et al. (2011) found reactive relational aggression to be correlated with arrest history while proactive relational aggression was not. Many of these same problems (delinquency, peer acceptance) have been linked to children with low self-esteem (Reijntjes et al.
The idea that children who have reactive relational aggression will also have lower levels of self-esteem versus children with proactive relational aggression warrants further study. Further, given the overlap between relational and overt aggression (Smith, Rose, & Schwartz-Mette, 2010), it is important to examine the link between relational aggression and self-esteem while controlling for overt aggression.

Most research has focused on overt or physical aggression with little understanding of the detrimental effects of relational aggression. Understanding relational aggression in conjunction with self-esteem may have implications in treatment of children with specific aggression problems. Specifically, Prinstein, Boergers, and Vernberg (2001) suggested that “relational forms of aggression and victimization are distinct constructs among adolescents and may be particularly relevant for this developmental stage compared with overt behaviors” (p.490).

**Method**

**Participants**

As part of a larger study on parenting and adolescent behavior, adolescents and their parents living in the general community surrounding the campus of a southeastern university were targeted for participation in the study. Participants were recruited from the university and surrounding community via announcements in undergraduate classes, flyers posted around campus and the general community, campus newsletter emails, and classified ads placed on the Internet. Advertisements, announcements, and flyers included a statement asking interested parents with children between the ages of 11 and 17 to contact the study administrator for potential participation. For the purposes of the current study, youth self-reports were used. The decision to rely on self-reports for this study was based on evidence suggesting that youth can be accurate reporters of their own behaviors, including delinquent and violent behaviors (e.g.,
Huizinga, 1991) and affective, interpersonal, and behavioral deficits such as those associated with psychopathy (e.g., Caputo, Frick, & Brodsky, 1999; Silverthorn, Frick, & Reynolds, 2001). The final participating sample consisted of 141 youth (51% females) between the ages of 11 to 17 ($M = 13.55; SD = 2.18$). Of the youth who participated, 52% were Caucasian, 26% were African American, 8% were Hispanic, 3% were Asian, 2% were Native American, and 9% reported “other” for ethnicity.

**Measures**

**Demographic Survey.** A standard demographic questionnaire was administered to assess participants’ gender, age, grade level, GPA, and ethnicity.

**Peer Conflict Scale** (PCS; Marsee et al., 2011). The PCS is a 40-item self-report measure designed to measure aggression. Twenty of the items are designed to assess overt aggression (“If others make me mad, I hurt them”) and 20 items are designed to assess the relational aggression (“I gossip about others to become popular”). PCS items also tap into the reactive and proactive functions of aggression. The items of the PCS are rated on a 4-point scale (0 = “not at all true,” 1 = “somewhat true,” 2 = “very true,” and 3 = “definitely true”) and scores are calculated by summing the items to create total overt or total relational scales (range 0 – 60). In studies with community, at-risk, and detained youth (C. Barry et al., 2007; Marsee, 2008; Marsee & Frick, 2007) good internal consistencies were reported for the overt and relational subscales (Cronbach’s alphas: overt = .90 - .93; relational = .86 - .87). Internal consistencies for the current study were good with Cronbach’s alphas being reported as: proactive overt = .83; proactive relational = .74; reactive overt = .88; and reactive relational = .77.

**The Rosenberg Self Esteem Scale** (RSE; Rosenberg 1965). The RSE is a 10-item self-report questionnaire that asks participants to indicate on a 4-point scale how much they agree or
disagree with statements about their self-worth (0 = strongly agree, 1 = agree, 2 = disagree, 3 = strongly disagree). The statements contain both positive and negative evaluations (e.g., “I take a positive attitude toward myself,” “At times I think I am no good at all”). The possible range of RSE scores is 0 to 30, with higher scores indicating higher levels of self-esteem. The RSE has demonstrated good internal consistency in past research with adolescents and has shown associations with narcissism and externalizing problems (Barry et al. 2009; Donnellan et al. 2005). Internal consistency was good with the Cronbach’s alpha for self-esteem = .86.

**Procedure**

Before data collection, the university Institutional Review Board granted approval for conducting the study. When participants arrived at the laboratory for their scheduled assessment, a research assistant reviewed the consent/assent forms with the parents and youth. The forms were read aloud to each participant and ample opportunity for questions was provided. The potential participants were informed that they could drop out of the study at any time without any consequences. After obtaining parental consent and youth assent, the youth and parent were taken to separate rooms and given privacy to complete the questionnaires. Assessments took approximately 90 – 120 minutes, and participants were allowed short breaks if necessary. Upon completion of the parent and youth assessments, each parent and each child received $25 in compensation for their time.

**Results**

Descriptive statistics with means, standard deviations and correlations for the main study variables are shown in Table 1. Age was not significantly correlated with any of the main variables. Gender was significantly correlated in that males reported correlations with both proactive overt aggression (r = -.184; p < .05) and reactive overt aggression (r = -.217; p < .05).
Self-esteem was not significantly correlated with either reactive overt aggression or reactive relational aggression, failing to support the hypothesis. Self-esteem was significantly negatively correlated with proactive overt aggression ($r = -.186; p < .05$) and proactive relational aggression ($r = -.181; p < .05$).

Hierarchical regression analyses were conducted with the four subtypes of aggression and gender as predictor variables and self-esteem as the criterion variable. Results are presented in Table 2. In the first regression, the two relational aggression scales with gender were added in step 1, and the two overt aggression scales were added at step 2. Proactive relational aggression was found to be a significant predictor of self-esteem ($\beta = -.253, p < .05$), but it no longer accounted for unique variance in self-esteem after controlling for overt aggression. In the second regression, the two overt aggression scales with gender were added in step 1, and the two relational aggression scales were added at step 2. Overt aggression was not a significant predictor of self-esteem at either step of the regression analysis.
### Table 1
Correlations, Means, and Standard Deviations for Main Study Variables

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>M</th>
<th>SD</th>
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<td>-.00</td>
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<td>.05</td>
<td>-.08</td>
<td>.04</td>
<td>13.55</td>
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<td>---</td>
<td>-.18*</td>
<td>-.06</td>
<td>-.22**</td>
<td>-.03</td>
<td>-.11</td>
<td>---</td>
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<tr>
<td>3. pOA</td>
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<td>.75**</td>
<td>.48**</td>
<td>-.19*</td>
<td>1.31</td>
<td>2.38</td>
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<td></td>
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<tr>
<td>4. pRA</td>
<td>---</td>
<td>.48**</td>
<td>.71**</td>
<td>-.18*</td>
<td>1.64</td>
<td>2.22</td>
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<td>5. rOA</td>
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<td>-.12</td>
<td>3.35</td>
<td>4.53</td>
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<td>6. rRA</td>
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<td>7. SE</td>
<td>---</td>
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<td>5.68</td>
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</table>

*Note. p = proactive, r = reactive, OA = overt aggression, RA = relational aggression, SE = self esteem.

Gender was coded 0 = male and 1 = female. * p < .05. ** p < .01.
Table 2
Regression Analyses Examining Unique Variance for the Subtypes of Aggression Predicting Self-Esteem

<table>
<thead>
<tr>
<th>Dependent Variable: Self-Esteem</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
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<tbody>
<tr>
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<td></td>
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<tr>
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<td>.051</td>
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<td>.765</td>
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<td>-2.14</td>
<td>.034</td>
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<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.067</td>
<td>.016</td>
<td>-.144</td>
<td>-1.69</td>
<td>.094</td>
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<tr>
<td>rRA</td>
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<td>.876</td>
<td>.106</td>
<td>.876</td>
<td>.382</td>
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<tr>
<td>pRA</td>
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<td>-.166</td>
<td>-1.25</td>
<td>.212</td>
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<td>.003</td>
<td>.024</td>
<td>.981</td>
</tr>
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<td>-.164</td>
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<td>.241</td>
</tr>
<tr>
<td><strong>Model 2 Step 1</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>.056*</td>
<td>-.145</td>
<td>-1.70</td>
<td>.091</td>
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<td>.142</td>
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<td>.142</td>
<td>.887</td>
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<tr>
<td>pOA</td>
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<td>-.226</td>
<td>-1.82</td>
<td>.071</td>
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<tr>
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<tr>
<td>Gender</td>
<td>.067</td>
<td>.011</td>
<td>-.144</td>
<td>-1.69</td>
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<td>rOA</td>
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<td>pRA</td>
<td>-.166</td>
<td>-1.25</td>
<td>-.166</td>
<td>-1.25</td>
<td>.212</td>
</tr>
</tbody>
</table>

Note. $p =$ proactive, $r =$ reactive, OA = overt aggression, RA = relational aggression, SE = self esteem. Gender was coded 0 = male and 1 = female. Significant betas are bolded.

*p < .05.
Discussion

The current study found significant negative associations between the proactive subtypes of aggression (proactive relational and proactive overt) and self-esteem. This is in contrast to our expectations that reactive aggression, particularly reactive relational aggression, would be associated with lower self-esteem. In the regression analysis, proactive relational aggression was significantly associated with self-esteem after controlling for reactive relational aggression; however, when controlling for the overt subtypes of aggression (reactive overt, proactive overt), proactive relational aggression no longer significantly predicted self-esteem. In order to determine whether the overt subtypes significantly predicted self-esteem when controlling for the relational subtypes, a second regression analysis was conducted with the overt scales entered first. The overt aggression scales did not significantly predict self-esteem either before or after controlling for relational aggression.

These results are the first to examine self-esteem’s associations with the forms and functions of aggression together and suggest that, in general, none of the four subtypes contributed unique variance to predicting self-esteem after controlling for the alternate subtypes. The one exception to this is in the regression analysis examining proactive and reactive relational aggression predicting self-esteem (see Table 2, Model 1), in which proactive relational aggression remained significantly negatively associated with self-esteem after controlling for reactive relational aggression. While this finding disappeared after controlling for the overt subtypes of aggression, it suggests a unique association between proactive relational aggression and low self-esteem. This association is both consistent and inconsistent with previous research. It is consistent with findings from Weber and Kurpius (2011) finding a negative correlation between self-reported relational aggression and self-esteem in college women, but inconsistent
with Golmaryami and Barry’s (2010) finding that peer-nominated relational aggression was positively related to self-esteem. These differences in findings could be due to differences in the measurement of relational aggression across studies.

In the current study, the correlational results supported a stronger link between proactive (relational and overt) aggression and low self-esteem than between reactive (relational and overt) aggression and low self-esteem, partially supporting T. Barry et al.’s (2007) correlational findings. These unexpected findings could possibly be explained by the high overlap in the reactive and proactive aggression, such that many youth who show proactive aggression also show significant levels of reactive aggression (Card & Little, 2006), and thus they share many correlates. The current study’s results incorporating both the forms and functions of aggression together with self-esteem adds to the literature and calls for further research in this specific area in the study of aggression. Understanding the role of self-esteem within aggression in adolescents will add to the understanding of this important developmental period (Prinstein, Boergers, & Vernberg, 2001).

Limitations, Implications, and Directions for Future Research

The current study is not without its limitations. This study used a cross-sectional design and therefore could not determine the direction of effects. For example, it is not possible to determine whether aggression leads to low self-esteem or low self-esteem leads to aggression. A longitudinal study could be used in the future to help solve this. Using multiple reporters versus the study’s self-reporting would have helped avoid shared method variance which may have led to artificial inflation of the associations between variables. The use of peer nomination of aggression specifically may result in different findings given previous research (Golmaryami &
Barry, 2010). Finally, this study used a community sample of youth and therefore the results may not be generalizable to clinical, detained, or other at-risk samples of youth.

Regardless of these limitations, the results of the current study show that proactive relational and proactive overt aggression are correlated with low self-esteem, and that proactive relational aggression is uniquely associated with low self-esteem after controlling for reactive relational aggression. However, these associations did not remain significant when controlling for the alternate subtypes of aggression, suggesting that no single subtype of aggression predicts self-esteem better than the others. Additional research is needed to better understand the associations between relational aggression and self-esteem. Such research may have implications for the treatment of children with specific aggression problems (Prinstein, Boergers & Vernberg, 2001). Understanding children’s low self-esteem levels would allow new avenues in treating problem behaviors through correcting any adverse forces that may be affecting their self-esteem.

Additionally, researchers may want to examine and control for other possible confounding variables that may influence the link between aggression and self-esteem including anxiety (Zeigler-Hill & Wallace, 2012), the subtypes of self-esteem (Salmivalli, 2001), and possible parental influences including the type of aggression used by parents and their own self-esteem levels (Solomon & Seres, 199; Tafarodi, Wild & Ho, 2010). These factors have been shown to influence aggression and self-esteem in previous literature (see above). They were not considered in the scope of the current study; therefore, future research may consider them as possible factors that may influence the relationship between aggression and self-esteem. A thorough background history may also shed light on possible earlier instances of trauma or stress that may further explain participants’ self-esteem levels and aggressive actions. This paper adds
to the literature by filling the gap in research concerning the breakdown of the aggressive subtypes’ specific correlations with self-esteem. The current study’s findings highlight the associations between the forms and functions of aggression and self-esteem and continue the call for further research in this new area of interest in developmental psychology.
References


APPROVAL SHEET

This is to certify that Miklos Balazs Halmos has successfully completed his Senior Honors Thesis, entitled:

Associations between Self-Esteem and the Forms and Functions of Aggression in a Community Sample of Youth

Monica Ann Marsee Director of Thesis
Paul J. Frick for the Department
Carl D. Malmgren for the University Honors Program

November 30, 2012 Date