Brief Report

Aggression, narcissism, self-esteem, and the attribution of desirable and humanizing traits to self versus others ☆

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ABSTRACT

Undergraduates ($n = 156$) completed measures of aggression, self-esteem, and narcissism. In accord with previous research, self-esteem and narcissism had opposing effects on aggression and functioned as mutual suppressors: Controlling their shared variance amplified self-esteem's negative association with aggression and narcissism's positive association with aggression. Participants also rated themselves and peers on traits that were or were not (a) desirable and (b) humanizing (i.e., uniquely human or reflecting human nature). Ascribing more humanizing and less dehumanizing traits to the self than to others was associated with more narcissism and more aggression (but did not mediate the narcissism-aggression relationship); this intriguing finding should stimulate further study of the social cognition associated with entitled, exploitative, and hostile behavior.

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1. Introduction

The personal and social costs of aggression make it important to understand why some people are more prone to aggression than others. Two personality variables that have been posited to predict aggression are self-esteem (a secure and stable sense of individual worth) and narcissism (an excessive and defensive assertion of status). Previous research suggests that aggression tends to relate negatively to self-esteem and positively to narcissism (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005); however, the literature contains some inconsistent findings.

Perhaps one source of the inconsistencies is a moderate positive correlation between measures of self-esteem and narcissism that causes self-esteem and narcissism to function as "mutual suppressors" in reducing the association each has with aggression. In support of this hypothesis, removing the variance that self-esteem and narcissism share does tend to strengthen the negative esteem-aggression relationship and the positive narcissism-aggression relationship (Donnellan et al., 2005; Paulhus, Robins, Trzesniewski, & Tracy, 2004; Smalley & Stake, 1996). One goal of the current study was to provide another test of this hypothesis.

A second goal was to explore the types of social cognition associated with aggressive behavior. Following a recent study that found aggression to be associated with lower self-esteem and other-esteem (Bradshaw & Hazan, 2006), the current study tested if aggression was associated with conceptualizing the self and others in desirable or undesirable terms. The current study also tested if aggression was associated with describing the self or others in humanizing or dehumanizing terms.

Several theorists have suggested that the degree to which people conceptualize others in humanizing or dehumanizing terms may influence aggression (Bandura, 1999). For example, people were more likely to choose greater shock intensities to punish others' poor performance when those others were described in dehumanizing, animalistic terms (Bandura, Underwood, & Fromson, 1975). Haslam (2006) distinguished two kinds of dehumanization. Animalistic dehumanization denies people *uniquely human attributes*, and conceptualizes them as coarse, irrational, and instinctual (versus moral, sensible, and civil). Mechanistic dehumanization denies others *human nature attributes*, and conceptualizes them as cold, passive, and superficial (versus emotionally responsive, curious, and deep). Therefore, the current study tested if conceptualizing others as lacking in either uniquely human or human nature attributes—or as having less of these humanizing attributes than the self—would predict more aggression.

If the degree to which people perceive themselves and others in desirable or humanizing terms predicts aggression, and self-esteem and narcissism predict these perceptions of the self and others, then these perceptions may constitute one social cognitive process through which the traits of self-esteem and narcissism influence aggression. For example, narcissistic individuals may be more prone to aggression because they tend to believe that they have more humanizing qualities than others do. Therefore, the final goal of the current research was to test if perceptions—and

differences in perceptions—of the self and others would at least partially mediate the associations of self-esteem and narcissism with aggression.

2. Method

2.1. Participants

University of Idaho undergraduates (102 females, 50 males, 4 unknown) ranging in age from 18 to 42 years (*M* = 21.1, *SD* = 3.8) participated for extra credit in psychology classes. They described their ethnicity as follows: 87.2% European American; 6.4% Native American, Black, or Latino; 6.4% "mixed", "other", or did not respond.

2.2. Materials

2.2.1. Aggression, self-esteem, and narcissism

I administered the most common self-report measures of aggression, self-esteem, and narcissism: the Buss–Perry Aggression Questionnaire (AQ; Buss & Perry, 1992), the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965), and the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). Participants responded to the 29 AQ items on 5-point scales ranging from -2 (extremely untrue of me) to +2 (extremely true of me); I averaged the responses to create an index of overall aggression (Cronbach's α = .88). Participants responded to the 10 RSE items on 6-point scales ranging from -3 (disagree strongly) to +3 (agree strongly); I averaged the responses to create an overall index of self-esteem (α = .86). Participants responded to the 40 NPI items by choosing either the narcissistic or non-narcissistic statement; I summed the number of narcissistic responses to create an index of overall narcissism (α = 0.86). (While some researchers report analyses for the subscales of the AQ and NPI, I chose not to because the subscale analyses added greatly to the length of the results without adding much useful information.)

2.2.2. Self and other-ratings

Participants rated how well each of 40 randomly-ordered traits described the self or "the average student at this university" on scales ranging from -3 (extremely untrue of them/me) to +3 (extremely true of them/me). Haslam and Bain (2007) list these 40 traits and detail how they were derived. Briefly, the traits assess 3 factors: desirability, uniquely human, and human nature (with five traits representing each combination of the high versus low poles of each factor). One (low desirability, high uniquely human, high

human nature) trait, "insecure", was omitted from the analyses because it was highly correlated with self-esteem (r[155] = -0.63); no other traits had an $|r| > .5$ with either self-esteem or narcissism. Thus, there were 20 high and 19 low desirability traits, 19 high and 20 low uniquely human traits, and 19 high and 20 low human nature traits.

I computed *Self-Desirability* as the mean self-rating on the desirable and (reverse-scored) undesirable traits, and *Other-Desirability* as the mean rating of peers on the desirable and (reverse-scored) undesirable traits. I then computed a self-other (S-O) difference score by subtracting *Other-Desirability* from *Self-Desirability*; thus, *S-O Desirability* was positive when *Self-Desirability* exceeded *Other-Desirability*. I computed indices of *Self-Uniquely-Human*, *Other-Uniquely-Human*, *Self-Human-Nature*, *Other-Human-Nature*, *S-O Uniquely Human*, and *S-O Human Nature* in the same way.

2.3. Procedure

Participants completed questionnaires containing the materials described above (in one of eight different random orders) at home and then returned them to my lab either in person or by mail.

3. Results

I replaced missing data with the sample mean for that item. Since gender did not predict aggression, self-esteem, or narcissism (ps >.1), and including gender did not significantly alter the results (and required excluding four participants), I omitted gender from the analyses.

3.1. Self-other ratings and aggression

Table 1 (rows 1–3, columns 1–2) shows the regression of aggression on S-O differences. Aggression related negatively to *S-O Desirability* and positively to *S-O Uniquely Human* and *S-O Human Nature*. That is, more aggressive individuals tended to apply less flattering but more humanizing terms to the self than to their peers.

The following equations show that the preceding regressions on self-other difference scores test a model in which self-ratings and ratings of others have equal but opposite effects (Edwards, 2002). The equation for the regression of an outcome, Y, on a S-O score is:

$$Y = b_0 + b_D(S - O) + e. \tag{1}$$

Eq. (1) can be rewritten as:

Table 1
Regression of aggression, self-esteem, and narcissism on self-ratings, other-ratings, and self-other differences.

Outcome	Trait dimension	S-O		Self		Other		ΔR^2
		β	SE	β	SE	β	SE	
Aggression								
	Desirability	-0.22^*	0.08	-0.42^{**}	0.07	-0.07	0.07	0.15^{**}
	Uniquely human	0.16^*	0.08	0.18^*	0.08	-0.06	0.08	0.01
	Human nature	0.18^*	0.08	0.15	0.08	-0.14	0.08	0.00
Self-esteem								
	Desirability	0.26^{**}	0.08	0.45^{**}	0.07	0.03	0.07	0.14^{**}
	Uniquely human	-0.02	0.08	-0.05	0.08	-0.01	0.08	0.00
	Human nature	-0.13	0.08	-0.14	0.08	0.05	0.08	0.00
Narcissism								
	Desirability	0.12	0.08	0.09	0.08	-0.10	0.08	0.00
	Uniquely human	0.23^{**}	0.08	0.20^*	0.08	-0.14	0.08	0.00
	Human nature	0.22^*	0.08	0.21^*	0.08	-0.13	0.08	0.00

Note: N = 156. The βs are standardized regression coefficients. The ΔR^2 is the increase in the variance explained by the unconstrained regression on self- and other-ratings relative to the variance explained by the regression on S-O ratings; the degrees of freedom for the F-tests of significance of ΔR^2 were 1 and 153.

* $p < .05$.
** $p < .005$.

$$Y = b_0 + b_D S - b_D O + e. \tag{2}$$

An unconstrained regression that treats self- and other-ratings as independent predictors is:

$$Y = b_0 + b_S S + b_O O + e. \tag{3}$$

Comparing Eqs. (2) and (3) shows that difference scores constrains b_S (the effect of self-ratings) and b_O (the effect of other-ratings) to be equal in magnitude but opposite in sign ($b_S = -b_O$). The problem is that even when S-O scores have a significant effect, a different model may fit the data better. Therefore, researchers should always compare the predictive efficiency of S-O difference scores with the predictive efficiency of unconstrained models that treats self-ratings and other-ratings as independent predictors (Edwards, 2002).

Following this recommendation, I conducted formal tests to ascertain whether S-O differences in desirability or dehumanization fit the data better than did alternative, unconstrained models. Table 1 (rows 1–3, columns 3–6) shows the unconstrained regression of aggression on self-ratings and other-ratings (entered simultaneously). The final column of Table 1 shows the additional variance explained by this unconstrained model compared to the constrained (S-O) model. For the desirability dimension, the unconstrained regression was the superior model, explaining 15% more of the variance in aggression; specifically, the unconstrained coefficients showed that aggression had a strong negative relationship with *Self-Desirability* but was unrelated to *Other-Desirability*.

For the uniquely human and human nature dimensions, the unconstrained model did not explain more variance, indicating that S-O differences provided an adequate model of those effects. To make this finding more palpable, consider as an example a trait high on both the uniquely human and human nature dimensions: *irresponsible*. S-O differences in *irresponsible* predicted greater aggression ($\beta = 0.19$, $p = .01$) and did so as effectively as an unconstrained regression on self-ratings and other-ratings of *irresponsible*.

3.2. Self-esteem, narcissism, and aggression

Aggression related negatively to self-esteem ($\beta = -0.32$, $SE = 0.08$) and positively to narcissism ($\beta = 0.20$, $SE = 0.07$), $ps \leqslant .001$. Self-esteem and narcissism were positively correlated ($r[154] = 0.38$, $p < .001$), and regressing aggression on self-esteem and narcissism simultaneously strengthened the effects of both self-esteem ($\beta = -0.47$, $SE = 0.08$) and narcissism ($\beta = 0.38$, $SE = 0.08$). The Aroian test of indirect effects (MacKinnon, Krull, & Lockwood, 2000) confirmed that narcissism was a significant suppressor of the aggression-esteem relationship ($z = 3.47$, $p < .001$) and self-esteem was a significant suppressor of the aggression-narcissism relationship ($z = 2.21$, $p < .05$).

3.3. Self-esteem, narcissism, and self-other ratings

The subsequent analyses removed the variance shared by self-esteem and narcissism by defining self-esteem and narcissism as the residuals from regressing, respectively, self-esteem on narcissism and narcissism on self-esteem. Table 1 (rows 4–9, columns 1–2) shows the regression of self-esteem and narcissism on S-O differences in trait ascriptions. Self-esteem related positively to *S-O Desirability*. Narcissism related positively to both *S-O Uniquely Human* and *S-O Human Nature*.

Table 1 (rows 4– 9, columns 3–6) shows the unconstrained regressions of self-esteem and narcissism on self- and other-ratings. The final column shows the additional variance explained by these unconstrained models compared to the S-O scores. The unconstrained regression on *Self-Desirability* and *Other-Desirability* explained 14% more of the variance in self-esteem, and showed that self-esteem was strongly positively related to *Self-Desirability* but was unrelated to *Other-Desirability*. On the other hand, S-O differences provided an adequate model of the effects of uniquely human and human nature traits on narcissism. To better understand the basis of the S-O effects, I correlated narcissism and self-esteem with the S-O difference for each trait. Narcissism had its strongest positive correlation with S-O differences in *ambitious* ($r = 0.22$), a trait high on both the uniquely human and human nature dimensions.

Examining Table 1 shows that *Self-Desirability* was a potential mediator of the esteem-aggression relationship, and *S-O Uniquely Human* and *S-O Human Nature* were potential mediators of the narcissism-aggression relationship. Applying the Aroian test to each of these three potential mediation effects showed that *Self-Desirability* partially mediated the esteem-aggression relationship ($z = -3.27$, $p = .001$), but the other two potential mediation effects were not significant ($zs = 0.97$, and 1.19, $ps > .25$).

4. Discussion

Aggression related negatively to self-esteem and positively to narcissism. Replicating Paulhus et al. (2004) and Donnellan et al. (2005), self-esteem and narcissism were mutual suppressors: Removing their shared variance amplified their opposing effects on aggression. More generally, our findings converge with others in suggesting that self-esteem without narcissism generally predicts pro-social, adaptive behaviors, whereas narcissism without self-esteem generally predicts anti-social, maladaptive behaviors.

Self-desirability (ascribing positive and not negative traits to the self) predicted less aggression and partially mediated the esteem-aggression relationship. Of course, the degree to which self-desirability and self-esteem reference overlapping constructs may partly explain these effects. Nonetheless, these effects provide converging evidence that people who describe themselves in less socially desirable terms tend to be more aggressive.

Ascribing more humanizing (i.e., uniquely human and human nature) traits to the self than to others was positively correlated with aggression. Thus, aggression may be associated not just with conceptualizing others in less human terms, as has been suggested previously (Bandura, 1999), but more particularly with conceptualizing others in less human terms than the self. Interestingly, narcissism also was associated with ascribing more humanizing traits to the self than to others. However, there was no evidence that conceptualizing the self as more "human" than others explains why narcissistic individuals were more prone to aggression.

Bradshaw and Hazan (2006) also assessed associations between aggression, self-esteem, and other-esteem (i.e., ascribing desirable terms to others). They too found a negative relationship between self-esteem and aggression (although not across all subscales of the aggression measure, perhaps because they did not control for the variance self-esteem shares with narcissism). However, whereas I found no association between other-desirability and aggression, they found a negative association between other-esteem and aggression. Perhaps one reason for the discrepancy is that my participants only rated peers, whereas their participants rated peers, parents, and teachers. (Bradshaw and Hazan also found an effect of the *discrepancy* between self- and other-esteem on overt aggression; however, when I re-examined their data, I found that an unconstrained model explained significantly more variance than did the S-O difference, $\Delta R^2 > 3\%$, $F(1, 122) > 4$, $p < .05$.)

The current study has several strengths. First, it differentiated the effects of self-esteem from the effects of narcissism. Second, it distinguished desirable person perceptions from humanizing person perceptions by offering participants a set of descriptors in which desirability and humanness varied independently. Third, it followed recommendations for testing the effects of difference scores by comparing them to unconstrained models.

The current study also has several limitations. First, the self-report measures may be inaccurate and, in particular, may reflect response biases; for example, socially desirable responding may contribute to the negative relationship between self-esteem and aggression. Second, various causal models can fit the data; for example, dehumanizing cognitions may facilitate aggression, or aggression may motivate dehumanizing cognitions (as a way to rationalize the aggression), or both. Third, contextual factors may moderate the results; for example, narcissistic individuals may be more likely to enhance themselves and derogate others when feeling threatened (e.g., South, Oltmanns, & Turkheimer, 2003).

To conclude, the current study bolsters the growing consensus that aggression is positively related to narcissism and negatively related to self-esteem, and that controlling for the overlap between measures of narcissism and self-esteem reveals the divergent implications of these distinct personality constructs. Furthermore, the current study discovered a connection between narcissistic and aggressive dispositions and tendencies to describe the self as having more humanizing and less dehumanizing traits than other people. This intriguing finding should stimulate further investigation into the types of social cognition associated with entitled, exploitative, and hostile behavior.

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