Fast track report

Public but not private ego threat triggers aggression in narcissists

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Abstract

One line of research indicates that people are more aggressive when they are insulted publicly rather than privately, whereas another indicates that subclinical narcissism predicts aggression. Drawing on these lines of research, we predicted that aggression would be increased among participants who scored higher on narcissism (as opposed to lower), received negative (as opposed to positive) self-relevant feedback, and did so in public (as opposed to private). The findings supported that prediction and further confirmed that narcissism was only predictive of aggression in the negative-public condition. The findings thus indicate that aggression is influenced by the interaction of situational and dispositional factors. Copyright © 2011 Crown in the right of Canada.

Developing a favorable impression of oneself in others has been found to be a significant motivation behind human behavior (see Leary & Kowalski, 1990; Schlenker & Weigold, 1992). People will go to great lengths to maintain and defend positive self-relevant appraisals, and they may respond aggressively when their self-view is threatened. The aggressive response represents an attempt to reassert positive attributes, restore honor, or invalidate the insult (Baumeister, Bushman, & Campbell, 2000; Baumeister, Smart, & Boden, 1996; Bushman & Baumeister, 1998; Felson, 1978; Kernis, Granneman & Barclay, 1989).

Importantly, when people experience self-threat, they are more prone to aggress in the presence of an audience than privately (Felson, 1978, 1982). Thus, audience presence constitutes one important situational determinant of aggression motivated by a desire for self-repair. However, aggression is also likely to be influenced by relevant dispositional factors. One such variable that has been studied extensively in the literature on aggression is narcissism (Bushman & Baumeister, 1998; Konrath, Bushman, & Campbell, 2006; Twenge & Campbell, 2003). Narcissism is a dimensional construct defined by the indicators of authority, self-sufficiency, superiority, exhibitionism, exploitativeness, vanity, and entitlement (Foster & Campbell, 2007). Kohut (1971) and Kernberg (1975) proposed that whereas narcissists present a highly positive self-view to others, they experience insecurities and self-doubts toward their favorable self-appraisal. Several studies have provided support for this claim, establishing a positive correlation between instability of high self-relevant evaluations and narcissism (Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003; Rhodewalt, Madrian, & Cheney, 1998; Zeigler-Hill, 2006).

One possible mechanism for establishing one’s superiority and reinstating threatened self-esteem is through acts of aggression. Several studies have found heightened levels of anger and hostility amongst narcissists (Emmons, 1987; Papps & O’Carroll, 1998; Raskin, Novacek, & Hogan, 1991; Rhodewalt & Morf, 1995; Wink, 1991). In addition, narcissists have been found to be more aggressive than non-narcissists following threats to their self-esteem (see Baumeister et al., 1996; Bushman & Baumeister, 1998; Campbell, Bonacci, Shelton, Exline, & Bushman, 2004; Jones & Paulhus, 2010; Konrath et al., 2006; Martinez, Zeichner, Reidy, & Miller, 2008; Stucke & Sporer, 2002) and also more likely than non-narcissists to interpret interpersonal interactions with hostile intent (McCullough, Emmons, Kilpatrick, & Mooney, 2003). Thus, narcissism appears to increase the likelihood of aggression in light of self-esteem threat.

The interplay between narcissism and high unstable self-esteem can also be a conduit for extreme cases of collective violence, as illustrated in historical cases involving political leaders (Mandel, 2002). Hitler is a case in point. As the historian Ian Kershaw noted, for a teenager to fail to pass an extremely tough entrance examination [namely, for the Academy of Fine Arts in Vienna] is in itself neither unusual nor shameful. But Adolf could evidently not bear to tell his friend, to whom he had always claimed to be so superior in all matters of artistic judgement, and whose own studies at the Conservatoire had started so promisingly, of his rejection. The blow to his self-esteem had been profound. And the bitterness showed. According to Kubizek, he would fly off the handle at the slightest thing. His loss of self-confidence could flare up in an instant into boundless anger and violent denunciation of all who he thought were persecuting him (Kershaw, 1998, p. 39).

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Kershaw’s passage illustrates that Hitler thought highly of himself and could not accept negative feedback easily. When he received self-relevant negative feedback, he could not bear to make it public even with his closest confidant. His predominant response to such ego threats was anger and rage toward others he deemed blameworthy for his failures. Hitler’s example suggests that narcissistic political leaders who possess unstable evaluations toward themselves and their groups may be sensitive to ego threat provocations delivered in public. This sensitivity may trigger their use of violence.

The present research builds upon previous research by hypothesizing that aggression will be an interactive effect of narcissism, audience presence, and feedback. We tested our interactionist hypothesis in two ways. First, we predicted that the effect of our situational factors on aggression would be moderated by narcissism. Specifically, we expected a three-way interaction such that participants who scored relatively high on subclinical narcissism and imagined receiving negative (as opposed to positive) feedback in public (as opposed to private) would display the highest mean level of aggression. In effect, we predicted a “spike” in aggression corresponding to that conjunction of situational (i.e., negative feedback in public) and dispositional (i.e., high narcissism) factors. Second, we predicted that narcissism (measured continuously) would only be predictive of aggression when participants received negative feedback in public. Thus, we expected groupings on narcissism to moderate our situational effects on aggression, and conversely, we expected the same situational factors to moderate the predictive effect of narcissism on aggression.

We tested these two related hypotheses using a paradigm that intentionally relies on minimal provocations (i.e., merely imagining receiving a certain type of feedback either in public or private) and minimal responses (i.e., indicating how much noise the feedback deliverer should receive as punishment in a subsequent, unrelated task). These design features serve different functions: minimal provocations should permit differences in aggression to be observed that might otherwise be difficult to detect. That is, we expect that only participants who scored relatively high in narcissism and who imagined receiving negative feedback in public would be sufficiently provoked to produce an elevated response. The minimal response measure we used, which relied on a “separate tasks” cover story, was chosen to mitigate against social desirability response biases that might similarly obscure otherwise detectable effects.

METHOD

Participants

One hundred and ten participants were recruited from the general public in Southern Ontario and received monetary remuneration for their participation. The mean age of the sample was 42.05 years ($SD = 14.02$), and 61% were female.

Materials and Procedure

Participants were randomly assigned to experimental conditions in a $2 \times 2$ (feedback: positive, negative) × (audience presence: public, private) × 2 (scenario: abortion, municipal spending) factorial between-subjects design. Scenario was manipulated solely to provide a more robust test of our hypotheses and was not of theoretical interest. Participants were first asked to imagine themselves in a psychology experiment on “Human Performance and its Evaluation” where they would receive performance feedback from another participant (Alex) on one task and they would provide feedback to the other participant on another task. They further read that by random draw, they were to receive feedback from Alex on an initial essay-writing task. Participants then continued reading one of the eight versions of the vignette corresponding to the experimental condition to which they were assigned.

We first manipulated scenario such that participants were asked to imagine that the essay topic was either on abortion or on local municipal spending. Next, we manipulated audience presence by having participants imagine that the feedback was delivered either privately ("the experimenter leaves the room to take a call and Alex quietly hands you your essay with written comments") or publicly ("the experimenter re-enters the room after taking a call and Alex loudly states right in front of the experimenter your level of performance"). Finally, we manipulated feedback by having the peer participant in the scenario deliver positive or negative feedback on the essay to the participant. Specifically, participants read the following: “Alex gave you a rating of 9 [i.e., in the positive condition] \{4 [i.e., in the negative condition]\} out of 10, which happens to be one of the (best) (poorest) assessments that any teacher has given to a student in this experiment. He explains in his feedback that he found your rationale for your views to be extremely (compelling) [weak].”

Participants then read the instructions for the “second task” in which they were to envision themselves evaluating Alex on a reaction-time task (Berkowitz, Corwin, & Heironimus, 1962; Buss, 1961). Specifically, they read that Alex will be asked to complete a computer task where he will have to press a button as fast as possible when an “X” appears on his computer screen. If Alex responds too slowly, he will lose on that trial. When Alex loses on a trial, you will need to inform him of his failure by administering a blast of noise as a form of punishment for failing to respond fast enough. At the start of the testing phase, you will be asked to determine both the loudness of the noise on a scale from 1 (lowest level) to 10 (highest level) as well as its duration (either a brief 1 second blast of noise or a longer 10 second blast). The experiment is set up so that even if you choose the loudest level and long duration it would not cause the student any permanent damage. However, other participants have indicated to the experimenter that loudness levels of 5 or greater are increasingly annoying to hear, especially when they are set to the long duration.

After reading the vignette, participants selected their noise-loudness and noise-duration responses. Our measure of aggression combined these responses created by dummy coding the short duration as 0 and the long duration as 1, and adding this value to the loudness rating. Thus, aggression scores could range from 1 to 11 (observed $M = 4.43$, $SD = 2.56$).
Participants then completed a series of unrelated tasks before completing the Narcissism Personality Inventory (NPI, Raskin & Terry, 1988). The NPI is a 40-item forced-choice questionnaire commonly used to assess narcissism in non-clinical samples. It includes items such as If I ruled the world it would be a much better place (Foster & Campbell, 2007). The internal reliability of the NPI was very good (Cronbach’s alpha = .89). We established high and low groups based on a median split (median = 95.00, SD = 12.48).

RESULTS

Preliminary Tests

Because narcissism was measured after introducing our experimental manipulations, we verified whether NPI scores were unaffected by those manipulations. A 2 (feedback) × 2 (audience presence) × 2 (scenario) between-subjects analysis of variance (ANOVA) on NPI scores confirmed that none of the main or interaction effects were significant (all \( p > .30 \)).

We also verified whether it was appropriate to collapse the data over our scenario manipulation. A 2 (feedback) × 2 (audience presence) × 2 (scenario) between-subjects ANOVA on aggression confirmed that no main or interaction effect involving scenario was significant (all \( p > .40 \)). Thus, subsequent analyses are collapsed across scenario.

Hypothesis Tests

Recall that we predicted a three-way interaction between feedback, audience presence, and narcissism such that participants’ aggression would spike in the cell that conjoins negative feedback, public delivery, and relatively high narcissism. A 2 (feedback) × 2 (audience presence) × 2 (narcissism) between-subjects ANOVA revealed a significant main effect of feedback, \( F(1, 101) = 4.23, \ MSE = 5.90, \eta^2_p = .04; \) mean aggression was significantly higher in the negative-feedback condition (M = 4.91, SD = 2.68) than in the positive-feedback condition (M = 3.96, SD = 2.36). This effect was qualified by a significant feedback × narcissism interaction effect (\( F(1, 101) = 4.16, \ MSE = 5.90, \eta^2_p = .04 \)) and the predicted three-way interaction effect, \( F(1, 101) = 7.06, \ MSE = 5.90, \eta^2_p = .07 \) (for all other effects, \( p > .15 \)). By unpacking the two-way interaction, simple effects tests revealed that whereas the effect of feedback was not significant among participants scoring low in narcissism \( (p > .95) \), it was significant among participants scoring high on narcissism, \( F(1, 51) = 7.61, \ MSE = 6.98, \eta^2_p = .13 \). Unpacking the three-way interaction, we observed no significant feedback × audience presence interaction effect among participants scoring low in narcissism \( (p > .15) \), whereas this interaction effect was significant among participants scoring high in narcissism, \( F(1, 49) = 5.54, \ MSE = 6.38, \eta^2_p = .10 \). Finally, a breakdown of this latter simple interaction effect (i.e., among high-narcissism participants) showed that whereas the effect of feedback on aggression was not significant in the private condition \( (p > .75) \), it was significant in the public condition, \( F(1, 25) = 13.82, \ MSE = 6.18, \eta^2_p = .36 \). These results therefore confirm not only our predicted interaction effect but also the predicted spike in aggression for participants who scored high in narcissism and received negative feedback in public, as is evident in Figure 1.

Whereas our first prediction concerned how aggression would vary in elevation as a function of dispositional and situational factors, our second prediction concerned whether our focal disposition—narcissism—would differentially predict aggression under varying situational conditions. We hypothesized that narcissism would predict aggression only when participants received negative feedback in public. To test this hypothesis, we first examined whether our three variables of interest interacted to predict aggression. To do so, we regressed aggression onto an interaction term created by multiplying audience (private = 1, public = 2), feedback (positive = 1, negative = 2), and NPI scores. The dummy codes reflected higher values for our condition of focal interest (i.e., where negative feedback was delivered publicly). As predicted, the three-way interaction term significantly predicted aggression, \( \beta = .23, p < .01 \). Next, we tested the predictive effect of narcissism on aggression in each of the four conditions separately. As predicted, narcissism significantly predicted aggression when negative feedback was delivered publicly \( (\beta = .45, p < .05) \) but not otherwise \( (p > .30) \). The regression weight for narcissism in the publicly delivered negative-feedback condition was also significantly greater than that based on the remaining pooled conditions \( (\beta = .07, p < .50), t = 2.24, p < .05 \).

DISCUSSION

The present research demonstrated that situational and dispositional factors can interact to shape aggression. First, a predictable spike in aggression was evident among participants scoring relatively high on narcissism and receiving negative self-relevant feedback in public. Grouping participants by whether they scored relatively low or high on narcissism moderated both the...
main effect of feedback and the feedback × audience presence interaction effect on aggression. Second, the predictive effect of narcissism on aggression was significant only when the situational condition involved receipt of negative feedback in public. These findings thus reveal that differences in a dispositional factor (namely, narcissism) can moderate situational influences (namely, feedback and audience presence) on aggression and that those same situational factors can moderate the predictive utility of the dispositional trait of narcissism.

Our findings thus build on research showing that people are more aggressive in response to publicly delivered negative feedback (Felson, 1978, 1982) and on research showing that narcissists are more aggressive than non-narcissists in response to negative feedback (Baumeister et al., 1996; Bushman & Baumeister, 1998; Jones & Paulhus, 2010; Konrath et al., 2006). The present research builds on those lines by showing more specifically how these factors can interact rather than by offering a replication of the past findings. Indeed, we did not find that audience presence interacted with feedback across the entire sample, as one might expect based on research examining audience presence (Felson, 1978, 1982). Nor did we find an overall predictive effect of narcissism on aggression when participants received negative feedback, as one might expect on the basis of other research (e.g., Bushman & Baumeister, 1998; Jones & Paulhus, 2010).

As noted earlier, we adopted an experimental approach characterized by minimal provocation and minimal response because we believe it offers a useful method for discriminating responses across conditions. Given our basic research interests, we think our design features are reasonable. Nevertheless, it would be instructive to explore in future research how these findings might generalize to situations involving either stronger hypothetical provocations or real provocations (strong or weak) and where the measured act of aggression come closer to what we would call a clear act of aggression in everyday life. Whereas some research suggests that people tend to overestimate their level of aggression under hypothetical conditions (Brauer & Chekroun, 2005), other research indicates that actual and hypothetical aggressive behavior closely correspond (Dodge, Chekroun, 2005), other research indicates that actual and hypothetical aggressive behavior closely correspond (Dodge, Chekroun, 2005). As a next step, future research could examine how the interactive effect of situational and dispositional factors demonstrated here might be qualified by other factors such as (i) whether the self-relevant threat is imagined or actually encountered, (ii) whether the measure of aggression is indicative (as in the present study) or behavioral (e.g., if instead of indicating a noise level, participants administered noise blasts varying in aversiveness), (iii) whether the measured act of aggression is conventional (e.g., hitting someone) or a proxy measure (e.g., deciding on punishment levels for another individual’s performance errors), (iv) whether the presence of others is imagined or real, and (v) the size of the audience and their relationship to the feedback giver and recipient.

Future research could also explore how aggression may be influenced by other dispositional factors in the “Dark Triad”—namely, in addition to narcissism, Machiavellianism and psychopathy (Jones & Paulhus, 2011). For instance, whereas Jones and Paulhus (2010) found that narcissists (but not psychopaths) aggressed after being insulted by an ostensible opponent, psychopaths (but not narcissists) aggressed after a gratuitous escalation of physical aggression by the opponent. Only narcissists appear motivated to aggress in response to ego threat. Psychopaths and Machiavellians are more likely to be motivated by less abstract, functional goals, such as sex or money (Jones & Paulhus, 2011). Thus, the situational factors that trigger aggression are likely to differ across these dispositional groups. Moreover, because those dispositions are positively correlated, it may be useful to examine how different dispositional profiles of the Dark Triad relate to aggression. Returning to the example of Hitler, it would appear that both psychopathy and Machiavelliamism tempered the translation of his narcissism into collective violence. A testable hypothesis would be that narcissists who face ego threat and who are also highly Machiavellian are especially likely to carefully plan their revenge.

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REFERENCES


