5-10-2006

Violence from Self-Love: Narcissism and Aggression in the Face of Ego Threat

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A DEPARTMENT HONORS THESIS SUBMITTED TO THE
DEPARTMENT OF PSYCHOLOGY AT TRINITY UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR GRADUATION
WITH DEPARTMENTAL HONORS

April 19, 2006

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THESIS ADVISOR DEPARTMENT CHAIR

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ASSOCIATE VICE PRESIDENT FOR ACADEMIC AFFAIRS
CURRICULUM AND STUDENT ISSUES

Abstract

The current study examines the relationship between narcissism and aggression. The link between narcissistic personalities and heightened aggressive response to ego threat has been substantiated in the literature (Twenge & Campbell, 2003), but it is unclear whether this response is driven by a self-repairing mechanism to restore damaged self-esteem or by an ego-promoting mechanism to vent frustration at not being admired. These mechanisms were tested by giving narcissists either mistaken public ego threats or negative feedback. Results replicate the link between narcissism and aggression but do not point to one mechanism over the other; additional data, however, provide information about other aspects of the aggressive response, suggesting it is more sadistic than simply a reaction to being threatened.

Introduction

"Self-love forever creeps out, like a snake, to sting anything which happens to stumble upon it." – George Byron

Most would agree that an encounter with a narcissistic person is not a pleasant one. Self-obsessed, conceited, and often offensive, narcissists constantly seek to revel in others' admiration, even if that admiration must be extracted and construed to fit the narcissist's own self-perceptions. Despite simply being difficult to interact with and oftentimes obnoxious, however, there seems to be an even darker side to the narcissistic story. Among other characteristics, it is a common observation that narcissists seem to be overly reactive when their grandiose views are not confirmed or threatened by others, and they often become overtly aggressive and offensive. For example, the Columbine high school shooters became infamous for their proclamations that directors like Steven Spielberg would be fighting over their story, hoping to achieve fame through violence in a most extreme case of narcissistic aggression (Gibbs & Roche, 1999; Twenge & Campbell, 2003). This volatile and aggressive side of narcissism has become increasingly evident in recent years.

As more evidence accumulates validating the link between narcissism and aggression, it is becoming increasingly clear that highly narcissistic individuals tend to react more aversely to threatening information or feedback from others when compared with the average person, responding with aggressive behavior as a means of reasserting their inflated views of themselves (Bushman & Baumeister, 1998; Stucke & Sporer, 2002; Washburn, McMahon, King, Reinecke, & Silver, 2004). In this sense, ego threat can be conceptualized as any encounter, feedback, or information perceived as a threat or

challenge to one's worth, competence, or character. Additionally, aggression can be defined as any attempt to hurt another person, whether it is through verbal or physical derogation. Although this link between narcissism and aggression is evident, the underlying mechanisms that govern this reactive process remain vague. Considerable debate has arisen over narcissists' motivation to aggress against others, and there seem to be two equally feasible potential mechanisms. The first of these is the self-reparation mechanism, which supposes that narcissists internalize the ego threat and their high self-esteem has actually been damaged by the ego threat, motivating an attempt at restoring that damaged self-esteem to pre-threat levels. This mechanism is supported by evidence suggesting that narcissists' self-esteem is very unstable and susceptible to damage by ego threat; because of this, aggression might be an attempt to return the narcissist to the position of superiority that he or she craves (Bushman & Baumeister, 2000).

The second possibility is what has been termed the ego-promotion mechanism, which predicts that the observed aggression is not a result of narcissists' insecurity, but simply a manifestation of their aggravation at others' failure to recognize and confirm their perceived superiority. This mechanism is supported by the exhibitionism and exploitativeness that often characterize narcissists. In other words, it is unclear whether narcissists' reactions are rooted in an attempt at repairing their damaged self-esteem, or if they aggress with the intention of just taking out their frustration and proving to others that they are, in fact better.

Because of this important distinction, it is important to investigate whether narcissists become aggressive to restore their perceptions of superiority in their own eyes (i.e., with the intent of self-reparation) or to promote these perceptions in the eyes of

others in the public domain, an area which has been suggested in the literature but never actually studied (Baumeister et al., 2000). For example, a private ego threat might be encountered in a situation where a person finds out he or she did poorly on a test, but no one else is aware of it. In contrast, a public ego threat might be exemplified in a situation where the same person finds out he or she performed poorly in front of others because the teacher reads the grades out loud in class. The current study attempted to address the ideas in question by teasing apart and isolating the specific interpersonal triggers that cause narcissists to respond aggressively in response to an ego threat. If the self-reparation hypothesis is true, narcissists would be expected to aggress more when threatened privately; in contrast, if the ego-promotion hypothesis is valid, they would be expected to aggress more when threatened publicly. By examining the differences between public and private ego threats and whether it is the personal feeling of inferiority or the perception that others think one is inferior (particularly when that perception is ill-founded), the present experiment attempted to provide further insight into the link between narcissism and aggression.

Narcissism and Unstable Self-Esteem: Characteristics and Background

Narcissism is characterized by an overly pretentious and conceited self image, extreme concern over others' opinions of oneself, a need to feel superior to and dominant over others, manipulativeness, exhibitionism, and an overall sense of strong (albeit unstable) egotism (Baumeister et al., 2000; Bushman & Baumeister, 1998). In other words, highly narcissistic individuals have unrealistically positive views of themselves, and they maintain these views via several mechanisms, such as derogating others, making downward comparisons, and construing various situations to fit with their unrealistically

high self-esteem. Furthermore, although these feelings of superiority and disfavor towards others are genuine, there is also evidence suggesting that these views are very unstable (Ang & Yusof, 2005; Bushman & Baumeister, 1998). In light of these characteristics, it is important to highlight that the population of college students studied here presumably exhibits more mild narcissistic traits than the clinical population of people who qualify for Narcissistic Personality Disorder.

Several key features of narcissism should be considered to better understand the link between narcissism and aggression. In the past, narcissism has been thought of by some to be a manifestation of a constant need to seek self-affirmation resulting from low self-esteem (Kernberg, 1975). It seems logical, then, that if that affirmation is not found, the response will be anger, or even violence (Morf & Rhodewalt, 1993). Indeed, psychologists tended to think aggression was in large part a manifestation of low self-esteem for many years (Baumeister, Smart, & Boden, 1996; Bushman & Baumeister, 1998; Schreer, 2002). More recent research, however, has shown this original idea to be ill-founded in terms of response to ego threat (Baumeister et al., 1996; Baumeister, Bushman, & Campbell, 2000; Olewus, 1994; Schreer, 2002), suggesting instead that aggressive individuals often exhibit extraordinarily high self-esteem and may be resorting to violence as a means to reiterate their positive self-views in the eyes of others. These recent findings have resulted in a switch from a focus on low self-esteem to an emphasis on the more subtle characteristics of high self-esteem (particularly extremely high self-esteem) and the issue of threatened egotism as a more prominent contributor to the aggression response.

An additional crucial factor is the discrepancy between narcissists' perceptions of themselves and others' perceptions of them in reality. Due to the unrealistically grandiose self-image characteristic of narcissism – which may not even be justified or founded on anything – in combination with their need to exhibit their "superiority" to others, narcissists are logically more likely to meet with opposition or threats to their egos; this may lead them to become more guarded or prepared to re-assert themselves, increasing their propensity to respond aggressively (Baumeister et al., 1996; Morf & Rhodewalt, 2001). This creates a self-perpetuating cycle in which narcissists respond negatively when others challenge (or fail to affirm) the views they hold of themselves, in turn causing others to respond negatively towards them, resulting in a conflict situation in which the narcissist resorts to aggressive behavior. For example, Bushman and Baumeister (1998) found that when narcissists were insulted, they tended to aggress at abnormally high rates towards the source of the threat, indicating that the threatened egotism was the most prominent factor in their violent response. Furthermore, when Twenge and Campbell (2003) examined a sample of aggressive adolescents, they found that narcissists tended to rely on three major strategies in order to preserve their inflated self-image in the face of a threat. The first two strategies involved fantasizing about fame and power and blaming their failures on external factors of the situation. Most importantly, the third strategy the adolescents used was an attempt to dominate and disparage competitors and experimenters who gave them negative feedback; to put it more simply, they relied on aggression to maintain their sense of superiority when faced with an ego threat (Twenge & Campbell, 2003). Following this pattern even further, when people's inflated views of themselves are rooted in an attempt to avoid feeling

worthless or neglected, they will constantly be on a quest to seek reaffirmation, and when it is not found, the reaction is volatile (Morf & Rhodewalt, 1993). Some researchers have cited this "disproportionate" discrepancy between others' views and the narcissists' extremely high self-opinions as one of the major reasons why they become aggressive so easily, and the idea has been replicated and supported by a significant body of research (Ang & Yusof, 2005; Raskin, Novacek, & Hogan, 1991).

Closely related to the concept of the large discrepancy between others' views and narcissists' is the fact that narcissists' high self-opinions seem to be very unstable, which presents another significant factor in the motivation behind their aggression. Considerable research points to the fact that narcissists' views of themselves tend to be unbalanced because they are not based in reality, and it is thought that this fragility of high self-esteem is the cause of the overly aggressive response when threatened in any way (Ang & Yusof, 2005; Bushman & Baumeister, 1998; Rhodewalt, Madrian, & Cheney, 1998; Stucke and Sporer, 2002; Twenge & Campbell, 2003). The instability of their self-esteem therefore translates to an increased vulnerability and susceptibility to damage from ego threats, so their self-esteem fluctuates greatly depending on whether they encounter situations that are ego-threatening or –promoting. Despite this fragility, however, their overall "average" self-esteem levels are higher in comparison to the average person (Morf & Rhodewalt, 2001). It is not only the fragile high self-esteem, however, that determines whether a person will react aggressively to ego threat. Kernis (2003) makes an important distinction between fragile, general high self-esteem and fragile narcissism-type high self-esteem, stating that narcissists differ from individuals

with unstable general high self-esteem in that narcissists' self-esteem tends to be more contingent on situational factors and much more inflated.

Furthermore, some researchers suggest that narcissists' high-self-esteem is not as solid as they present it to be; in other words, even though their self-views are grandiose and self-promoting, they are also very vulnerable (Morf & Rhodewalt, 2001). Because of the fleeting nature of emotion and the underlying feeling of not being sure of one's worth, researchers propose that narcissists demonstrate real self-love, but the roots of this confidence are actually very shallow because they do not believe cognitively that they are superior (Bushman & Baumeister, 1998; Rhodewalt et al., 1998). To take this a step further, some have even argued that, although narcissists do believe they are superior and are highly invested in protecting and promoting their sense of superiority, they may also possess "deeply felt (but presumably nonconscious) insecurities" (Kernis, 2003, p.21; Morf & Rhodewalt, 2001). In other words, narcissists have strong motivation to "prove" their worth to others, strong feelings that they are better than others, high self-worth, and are greatly invested in avoiding rejection, but they lack the underlying cognitions that would allow them to actually trust in their superiority (Ang & Yusof, 2005; Bushman & Baumeister, 1998). This is not to say that their self-images are false or that their egotistical self-presentation is simply for the sake of appearances; instead, narcissists' genuine self-love is just not built on a strong enough foundation to make it stable. This extremely fragile balance therefore creates the conditions which, in combination with rejection or ego threat, cause the individual to be very volatile and aggressive (Bushman & Baumeister, 1998).

Unstable Egotism Threatened: Narcissism and Ego Threat

Because of this combination of unrealistically positive views and fragile self-esteem, in addition to narcissists' tendency to overreact when threatened, a large body of research has grown which focuses on narcissists and their response to ego threat. This line of research has suggested that high levels of narcissism are associated with much higher levels of anger, as well as with increased hostile behavior and thinking (Kohut, 1971; Morf & Rhodewalt, 1993). Furthermore, other studies have found that, when compared with individuals in a normal population, individuals with narcissistic personalities respond with significantly increased defensive behavior, reactivity, and aggression when presented with various types of ego threat (Baumeister, Bushman, & Campbell, 2000; Bushman & Baumeister, 1998; Stucke & Sporer, 2002; Washburn, McMahon, King, Reinecke, & Silver, 2004). Several studies conducted on aggressive adolescents – including several of the teenagers responsible for school shootings in the past decade – show high correlations between aggressive young people and narcissistic tendencies, citing social rejection as a cause of violence and positing that social rejection gives adolescents a reason to become more aggressive towards others (Newcomb, Bukowski, & Pattee, 1993; Twenge, Baumeister, Tice, & Stucke, 2001). In a similar vein, some researchers claim that because maintaining the elevated self-opinions characteristic of narcissists requires narcissists to seek out admiration actively and continually protect themselves from any failures or events that could lead to those high opinions being threatened or changed, if that affirmation is not attained or is opposed, these personality types are likely to respond with anger and hostility (Kohut, 1971; Morf & Rhodewalt, 1993).

Although the mechanisms and motivating factors that underlie the link between narcissism and aggression are unclear, the literature clearly points to the fact that a link between narcissism and aggression exists, and this differential (and volatile) response to even slightly threatening situations begs further research. Evidence for the self-reparation hypothesis would suggest that the fragility of narcissists' self-esteem is the most powerful influencer, whereas evidence for the ego-promotion theory might indicate that it is simply others' opinions that motivate narcissists the most. The current study attempted to make this distinction.

The Current Study

While the questions about aggression and the nature of its relationship to narcissism are slowly being answered, obvious holes still exist in the research as to the underlying details of what exactly elicits the aggressive response and what the motivating factors are. Is it the assertion to themselves that they are, in fact, still superior, or is it a desire to prove their superiority to others, and is it actually other people's perceptions of them that they are concerned with? In an attempt to answer these questions, the current study sought to examine whether the aggressive response is due to the person's private self image being threatened and a need to reestablish the sense of superiority that narcissists crave, or if it is due to the public perception of inferiority that may accompany an ego threat. In other words, what matters more to narcissists: their opinions of themselves, or the opinions of the people they interact with? Furthermore, what might the effect be if the narcissists find out that others' negative opinions of them are actually wrong? By looking at narcissists' reactions when the person providing the ego threat thinks he or she is better but actually is not may indicate whether aggression is a way to

defend oneself and restore one's self-esteem in the face of others' negative opinions, or if it is just a frustration response meant to reassert one's own positive self-image. The disparity between an aggressive response in reaction to other people's negative opinions and the same response with the intention of reasserting one's superiority to oneself is important, and the current study attempted to make that distinction.

To inspect the nature of this response, the present study looked at participants' reactions to negative feedback that they knew for a fact was ill-founded, and whether they took advantage of the presented opportunity to aggress against a competitor who had untrue information regarding the participant's performance. While participants knew that they performed perfectly well on a given "competency" task, they were also led to believe in one condition (Mistaken Feedback Condition) that the competitor thought the participant performed below par. This created a situation in which the participants knew privately that they did well and were actually superior, but were also aware that there was a public perception of inferiority based on wrong information. In other words, the study attempted to reveal whether it is the true ego threat or others' negative perceptions of the individual that elicits an aggressive response. In other conditions, participants were told that they actually scored worse (Negative Feedback Condition), or they were simply told the scores were the same (Control).

Using the noise blast technique developed by Bushman and Baumeister (1998), the experiment gave individuals with high scores on the Narcissistic Personality Inventory [NPI; Raskin & Terry (1988)], the opportunity to aggress against a simulated competitor who had a negative impression of the participant based on information the participant knew was wrong. Based on previous research and the outcome of other

similar studies, I hypothesized that individuals with higher NPI scores would blast the competitor with greater levels of noise. More importantly, the second hypothesis predicted that participants in the Mistaken Feedback Condition would exhibit even higher levels of aggression than those in the Negative Feedback Condition, suggesting that it is the public perception of inferiority that matters most to narcissists (and therefore the ego-promotion mechanism driving the response). Although no work has yet been done to provide support for the ego-promotion hypothesis, there is some indication that narcissists care very much about proving to others that they are better (Stucke & Sporer, 2002) which might suggest that they are more concerned that others think they are inferior in an ego threat situation.

Method

Participants

The sample for this study consisted of 72 participants recruited from introductory psychology classes at Trinity University in exchange for extra credit points in the class. All participants (41 females, 31 males) were between the ages of 18 and 22 (M = 18.56, SD = 1.72). Two experimenters administered the study, one of whom was male and one of whom was female; all but six participants were tested by the female experimenter.

Cover Story

Upon giving informed consent, participants were told that the study's purpose was to provide insight into the relationship between different personality types and competitiveness. Furthermore, they were told that the experimenters were also investigating the differential response between face-to-face competitions and no-contact competitions involving an unknown person communicating via a computer. Precautions were taken to simulate the presence of another "participant" in a separate room. In correspondence prior to participation in the study, participants were told that they were randomized to the no-contact, or "online," condition of the experiment, so they were asked to arrive at the experiment within a five-minute time window so as to keep the experiment anonymous. At the time of their arrival, the experimenter could be heard speaking to someone in a separate room in the experiment lab, and pre-recorded voice files were used to simulate activity throughout the duration of the experiment. Because separate rooms were used for each participant, the experimenter used an intercom system to communicate with the participant when various portions of the study were completed. The use of voice files over the intercom system provided further suggestion that another

person was indeed present, regardless of the fact that the subject never saw his or her competitor. This, in conjunction with emphasis put on the importance of participant anonymity, led participants to believe that they were actually competing against another student.

Competency Competition Task.

Once the participants were situated in the participant room, they completed the "competency" competition, a task modeled after the procedure used by Stucke and Sporer (2002). Before starting the task, participants were told that the test was an assessment of their overall academic competency at the college level. The test consisted of two parts: an eight-question analogies segment and a more analytic logic task consisting of a problem and five following questions (See Appendix). Questions on both sections were taken from a *Princeton Review* test preparatory book for the Graduate Record Exam (GRE; Lurie, Robinson, & Pecsenye, 2003). The experimenter explained that performance on this task determined whether participants would give or receive noise feedback in the later task; whichever participant scored better would act as the "performer," or receiver of feedback, whereas whoever performed more poorly would be giving feedback (i.e., the "monitor"). If the difference in scores was only within a few points, the positions would be determined alphabetically. Participants were asked to notify the experimenter over the intercom when they were finished. During this segment, the experimenter explained that the intercom system had been problematic and required checking, so as to provide an opportunity for the subject to hear the other "participant" speaking while the experimenter remained visible. This was achieved through the use of timed voice recordings.

Baseline Questionnaires

Upon completion of the competition task, the experimenter took the answer sheet to "score." Participants then completed self-report personality measures of narcissism and self-esteem. All questionnaires in the study were administered using MediaLab (Jarvis, 2004). The baseline questionnaire consisted of 91 self-report items, all of which were on a Likert-type scale. Questions included items from various personality scales, including the NPI (Raskin & Terry, 1988) and the Rosenberg Self-Esteem Scale (Rosenberg, 1989), and other questions were designed to target specific personality traits and details related to those traits, such as narcissism, aggression, and response to ego threats. Once the participant was finished, the experimenter returned to the room with the results of the competition task, at which point three different manipulation conditions were used. In all conditions, participants were told that they had been selected to be the "monitor" and were responsible for rating their competitor's performance on a figure discrimination task by giving varying levels of noise blasts. Participants were then randomly assigned to one of the three experimental conditions described below.

Experimental Manipulations

Negative feedback condition. Participants in this condition received self-relevant negative feedback from the experimenter, telling them that they were outperformed by the confederate competitor.

Mistaken feedback condition. In this condition, participants received self-relevant negative feedback from the experimenter, telling them that they were outperformed by the confederate competitor. The participants were then informed that the experimenter

made a mistake, and the participant actually scored higher. To the participants' knowledge, the "competitor" was unaware of this mix-up, supposedly due to the fact that the noise feedback task was already set up and it would confound the study to inform the other person of the mix-up. This gave the participants private knowledge that they performed well, but their competitor believed they performed poorly.

Feedback control condition. In the control condition, the participants were told that the scores were very close and that they were selected to be the monitor (i.e., give feedback); they then completed the study normally.

Noise Blast Task

After completing the GRE-type questions and receiving feedback, the participants were then asked to complete a noise blast task ostensibly related to the study of different personality types and competitiveness; the task was modeled after the procedure used by Bushman and Baumeister (1998). Using a computer system rigged to show information simultaneously on two computers, participants monitored the progress of the "competitor" on a figure discrimination puzzle, which required the performer to identify two figures quickly shown on the computer screen as either identical or different. Once the performer "answered," a score screen appeared, showing the participant's answer, whether the answer was correct or incorrect, and a percentile for how quickly the participant answered in comparison to other previous participants.

The actual participant (monitor) was then prompted to give feedback using a noise panel consisting of 11 different buttons labeled with different noise levels (in decibels). Participants controlled both the loudness and the duration of the "noise," because the noise blast panel required them to press separate buttons to initiate and terminate the

noise blast. Once participants pressed a noise button, a feedback screen was shown until the monitor pressed the "stop" button to demonstrate the noise blast being given to the performer. Monitors were told to give a blast of noise to the performer if he or she did poorly on a problem; poor performance was characterized by both incorrect answers and slow responses. Participants therefore controlled both the duration and intensity of the noise blast, allowing them an opportunity to aggress against the simulated competitor. Prior to beginning the noise blast task, participants were assured that the noise was not severe enough to cause any real damage or trauma to the competitor – it was merely explained as being temporarily painful and/or surprising. Although the participants were not able to hear the noise blasts they selected for their competitors, this silence could be attributed to the walls separating participants from the headphones of the competitor. In reality, no noise blast was actually played after participants pressed each button. The noise blast panel was labeled with approximate decibel levels of the noise the participants were supposedly delivering, including examples of equivalent noises to give them an idea of what the "competitor" will hear. These descriptions are as follows:

- 60 decibels (dBA) – normal conversation
- 70 dBA – freeway traffic, coffee grinder
- 80 dBA – doorbell, loud alarm clock
- 95 dBA – garbage disposal, electric drill
- 110 dBA – car horn, shouting in ear, leafblower
- 120 dBA – thunder, chain saw, rock concert, ambulance siren
- 150 dBA – firecracker, jet engine taking off

Post-test Questionnaire

After the noise blast task, participants were asked to fill out self-report questions similar to those in the baseline questionnaire, with the same questions specifically targeting individual differences such as how they felt about the competitor and about the noise blast. Items in this questionnaire targeted the specific noise blast task, the participants' reactions to the task, and other questions aimed at the thought process behind decisions made during the noise blast task.

Debriefing

After finishing all portions of the experiment, participants were debriefed about the methods and goals of the research. In addition, participants who received performance feedback were assured that the feedback was randomly assigned and thus not at all related to their true performance or competence. Care was taken to explain why deception was necessary to achieve the goals of the study. The participants were also told that there was not in fact a person in the other room. The only aspect of the study withheld from participants was the fact that the ultimate construct being measured by the research was narcissism. To avoid suggesting to participants that they might possess characteristics of narcissism, which people associate with dysfunction, the debriefing simply discussed how specific personality types (e.g., high self-confidence) may influence performance. Participants were also asked for their feedback and thoughts about the simulated competitor and the study in general.

Results

Primary Analyses

Aggression response was measured by calculating each participant's average level of noise blast given to the competitor over the 15 different trials. Data were analyzed utilizing a median split to separate high and low narcissists (M = 14.22, SD = 7.59, Mdn = 13). A 3 (Feedback) x 2 (Narcissism) between subjects analysis of variance revealed a significant main effect for narcissism on aggression, $F(1, 72) = 6.81$, $p < .05$, as seen in Figure 1. Furthermore, correlational analyses indicated that this relationship was linear, $r(70) = .23$, $p = .05$, indicating that participants scoring highest on the NPI measures also demonstrated the highest levels of aggression. Means and standard deviations for these groups are reported in Table 1.

Despite the confirmation that narcissism and aggression were related, the results did not reveal any significant differences between feedback conditions. Due to the fact that the manipulation conditions yielded no effect on any important dependent variables, including interactions, the experiment condition variable will be excluded from the remainder of results reported.

Secondary Analyses

Although no main effect for feedback condition was found, subsequent secondary analyses revealed other effects of interest. The Narcissistic Personality Index (NPI) is broken down into seven subscales: Exhibitionism, Superiority, Entitlement, Self-Sufficiency, Vanity, Authority, and Exploitativeness (Raskin & Terry, 1988). Analyses were performed for each individual subscale to determine whether any specific aspects of narcissism were driving participants' aggressiveness. Additionally, to look at differences

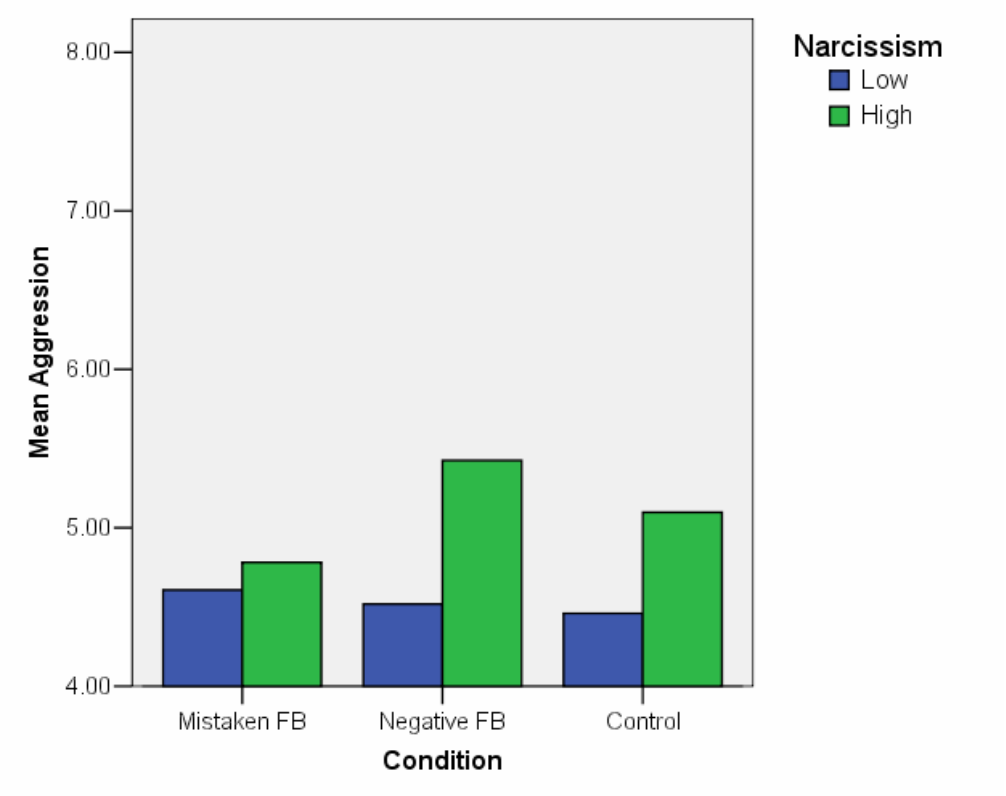

Figure 1. Differential aggression responses across conditions of high and low narcissists on a noise blast task. Mean Aggression scores represent the average of participants' noise blast levels given to the simulated participants across fifteen trials.

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in responses when the fake competitor answered the figure discrimination questions correctly or incorrectly, a mixed-design 2 (narcissism) x 2 (right vs. wrong) ANOVA was performed using the separated right and wrong questions as within-subjects factors. The Exploitative subscale of the NPI was positively correlated with mean aggression response, $r(70) = .39$, $p = .001$. Furthermore, the Exploitative subscale was also positively correlated with higher aggression when the competitor answered correctly, $r(70) = .30$, $p < .05$.

Some additional interesting relationships were found when examining narcissists' responses to individual questionnaire items. On specific items assessing participants' feelings about the noise blast procedure, analyses revealed that narcissists actually enjoyed giving their competitors noise blasts more than their non-narcissistic counterparts did, $r(70) = .30$, $p < .01$. Enjoyment of hurting the competitor was also significantly correlated with aggression, $r(70) = .25$, $p < .05$. This finding was particularly interesting in that it indicates enjoyment as a mediator in the narcissistic aggression response, due to the fact that the correlation between narcissism and aggression was reduced when enjoyment was covaried, $r(70) = .15$, *ns.* This potential mediational relationship is described in Figure 2. Furthermore, narcissists also felt that their opponent deserved the noise feedback they gave them significantly more than non-narcissists, $r(70) = .23$, $p = .05$. Finally, when asked if they felt that their opponents' performance was a negative representation of their competence, narcissists rated their opponents as incompetent significantly more than did those low in narcissism, $r(70) = .24$, $p < .05$.

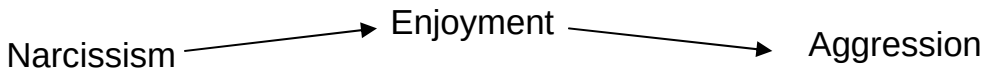

Figure 2. Proposed role of enjoyment of hurting another person as a mediator in the relationship between narcissism and aggression.

Analyses were also conducted for potential outcomes related to gender and experimenter. A gender difference was found for mean aggression responses (i.e., loudness of noise blasts given), indicating that men were more aggressive than women, $F(1, 72) = 5.31$, $p < .05$. Results also indicated that men were more generally narcissistic than women. No experimenter effects were found.

Effects of Self-Esteem

The issue of self-esteem as a potentially confounding variable in delineating the effect of narcissism on aggression was taken into account, and the aforementioned effects for total narcissism, $r(70) = .39$, $p < .05$, and the Exploitative subscale, $r(70) = .41$, $p < .01$, remained when self-esteem was incorporated as a covariate. Furthermore, self-esteem was not correlated with any of the specific noise blast procedure questions, indicating that narcissism was the determining factor in participants' enjoyment of giving noise blasts, rating of their competitor's competence, and evaluation of whether the competitor deserved the noise feedback they received.

Table 1

Mean Aggression Scores by Level of Narcissism and Gender

Group	Mean	Standard Deviation
Low Narcissists	4.53	0.91
High Narcissists	5.14	1.02
Males	5.21	1.05
Females	4.63	0.93

Manipulation Checks

To ensure that the manipulation was sufficiently powerful and that participants believed the cover story, several questions were presented verbally during the debriefing. These questions revealed that most participants believed the cover story, with only three being eliminated because they did not believe the simulated participant or had previously been informed of the study. Furthermore, these questions were open-ended, so participants were able to discuss what they thought the objective was and their thoughts about the other person; these questions revealed that the vast majority of participants did not guess what the experiment was investigating and assumed the other person was real.

Discussion

The results of the current study further substantiate the link between narcissism and aggression, demonstrating that narcissistic individuals are more likely to respond with aggressive behavior towards others when placed in a situation where their egotistical self-perceptions are threatened. This effect is consistent with results of previous studies that showed narcissists to be more aggressive when faced with an ego threat of any kind (Ang & Yusof, 2005; Baumeister et al., 1996; Baumeister et al., 2000; Bushman & Baumeister, 1998; Stucke & Sporer, 2002; Twenge & Campbell, 2003). Despite the strength of the link demonstrated here, however, the results failed to reveal the predicted effects for feedback condition, providing few new insights into what motivates the narcissistic aggressive response. The fact that no differences were found between subjects who were threatened by a competitor who incorrectly thought the subject had performed worse and subjects who believed that their performance was actually inferior provides no answers to the question of whether narcissists aggress to repair their damaged self-esteem or to vent their frustration at not being recognized as the superior people they believe themselves to be. On the other hand, it is important to note that although the differences between conditions were not significant, mean aggression scores (i.e., mean levels of noise blasts given) were actually higher in the negative feedback condition.

Limitations and Potential Explanation

Despite the lack of differences between feedback groups, it is unclear whether this absence is due to an insufficiently powerful feedback manipulation, or if it actually indicates that no private/public effect exists. It could be suggested that it really does not

matter to narcissists that other people believe they are inferior, and that they aggress because hurting others and exerting dominance over them is simply satisfying. It is important, however, to take into account any flaws in the manipulation that may have prevented an existing effect from being detected.

The most feasible flaw in the manipulation is in the mistaken feedback condition, in which the experimenter returned shortly after giving negative feedback to inform the participant that he or she did actually perform better, but due to time constraints, the experiment would continue without informing the competitor of the mix-up. The short time in which this exchange was made, and the fact that several participants had been through separate experiments utilizing similar "mix-up" situations may have detracted from the believability of this manipulation, which may have prevented a true response from being detected. Additionally, the size of the sample and the fact that the sample contained an unusual number of participants low in narcissism (the median NPI score was 13) may have contributed to the lack of differences, with the low number of highly narcissistic subjects preventing the results from accurately representing the response one may find in a group of truly narcissistic individuals. Furthermore, while cell sizes for each condition were kept equal throughout the study, participants were not assigned to conditions according to NPI scores, so the balance of high and low narcissists in each condition was not as even as possible.

Another potential flaw in the experiment is that there was never an actual competitor participant present for the subjects to aggress against. To compensate for this, however, many precautions were taken to make the presence of another individual as believable as possible. Sound recordings, the intercom system, timing of arrivals, staged

conversations, recruiting emails, and background noises were all used to convince the participants that a competitor was actually present. Although this limitation could account for the lack of differences, post-test interviews indicated that this is not a very feasible explanation because a large majority of participants believed the cover story. Related to this, however, is the more problematic issue of the lack of actual sound when participants gave each noise blast. The fact that they never heard an actual blast played (even though they were given descriptions of each noise level) may have contributed to the lack of differences; had they actually heard the loudness of noise they were giving, high narcissists (i.e., more aggressive individuals), may have given even stronger noise blasts. Despite these potential issues, it seems that weakness in the misinformation and private feedback manipulations were more involved in the failure to show differences than the actual noise blast manipulation.

A less surprising finding was the gender effect which indicated males as being more aggressive in the levels of noise blast given than females. Although this is not shocking in light of the extensive research suggesting males are generally the more aggressive sex (Buss, 1997), the difference found in this particular experiment could be due to the fact that the voice used to simulate the presence of another participant was male. This could be viewed as a limitation, and it might warrant changes in follow-up studies to study whether narcissists' responses change according to the sex of the ego threat source.

Secondary Findings of Interest

Although no effects for condition were found, the results did provide some interesting insights into some of the more subtle aspects of narcissistic aggression, such as the correlations between questionnaire items pertaining directly to the noise blast task and narcissism scores. As stated previously, narcissists reported outright enjoyment of giving the noise blasts to their competitors, implying that not only were they more willing to give loud noise blasts and be aggressive, but that they actually took pleasure in hurting competitors after they had been threatened by those people. Furthermore, it seems that enjoyment is actually playing a significant role in mediating and determining the aggression response in high narcissists, judging from the fact that the narcissism-aggression correlation disappeared when enjoyment was removed. This finding suggests a mediational relationship between narcissism and aggression, such that the enjoyment of hurting others predicted by high levels of narcissism directly influences the narcissist's aggressive behavior, as described in Figure 2.

In addition to the enjoyment factor, the fact that narcissists rated their competitors as incompetent and felt that the competitors deserved the noise blasts they were given suggests that narcissists were actively becoming more aggressive towards the source of the ego threats. The fact that they enjoyed aggressing more, felt the other deserved the noise blasts, and saw the other as incompetent could suggest that narcissists were indeed taking out their frustrations at not being recognized on the other participant by becoming aggressive and trying to degrade them as much as possible.

Providing further potential support to the possibility that narcissists were acting out their frustrations at not being admired by being more aggressive is the fact that

aggression and several of the individual noise blast trials were particularly associated with the Exploitative subscale of the NPI, emphasizing narcissists' attempts at exploiting their competitors. Furthermore, the fact that these individual trials were in response to correct answers by the competitor implies that these effects were not a result of simply rating the other's performance more negatively; instead, the administration of louder noise blasts on these responses was a product of gratuitous aggression on the part of the narcissistic participants. These observations are consistent with the design of the NPI Exploitativeness subscale, which has shown to be representative of characteristics such as nonconformity, rebelliousness, hostility, and a lack of consideration or tolerance for others (Raskin & Terry, 1988). All of these characteristics make sense in light of the findings here, reiterating the supposition that the exploitative tendencies of narcissists might be most prominent in driving their aggression.

Another finding that might provide new interesting insight into the narcissistic aggression response is the fact that even narcissists in the control condition displayed elevated levels of aggression even in the absence of ego threat, suggesting that their response was more sadistic, and they were aggressing simply for the sake of hurting the other person. An alternative explanation of this surprising result is that, despite the control condition, the narcissists still perceived the feedback (that their performance was equivalent to their competitor's) as an ego threat because they were not being applauded or elevated above the other. This would explain the pattern of results in which participants in this condition were more aggressive than in the mistaken feedback condition, in which the pressure was relieved by reassuring them that they had actually

outperformed the other person. In other words, the surprising effect could be due to errors in the manipulation design.

Conclusions

The findings of the current study, although in part quite surprising, paint an interesting picture of the aggressive narcissist. Contrary to most reports concerning the link between narcissism and aggression, the evidence here portrays people who are not only reactive to challenges and ego threats, but also those who overtly attempt to hurt others around them simply because they can. In this description of narcissistic aggression, aggression is not just an attempt to reassert one's superiority and dominance over others, it is also a less complex manifestation of a desire to exploit others and, more importantly, sadistically derive pleasure from this exertion of power.

Although we are not any closer to isolating the underlying mechanisms behind this response and whether aggression has a self-repairing or ego-promoting effect on narcissists, this idea that enjoyment of the aggressive act actively mediates narcissists' response provides new information as to what might be going on in the minds of these people. The fact that these mechanisms remain unknown warrants further study and closer examination, and a deeper understanding of this discrepancy would lend valuable insight into the conceptualization of the narcissism-aggression link and would contribute to the development of more effective interventions for combating over aggression in a variety of situations. Although it is unclear from this research exactly what motivates narcissists to act aggressively, the indication that they particularly enjoy the act of hurting others is alarming, and it carries strong implications for both the comprehension of narcissism and the understanding of how to deal with these narcissists. Furthermore, it is

clear from these findings that narcissists not only love building themselves up, but they also love tearing other people down; in other words, it is yet another example of how maladaptive self-love can indeed be a very dangerous thing.

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Appendix A: Materials

Analogies

1. ETERNAL : END ::
    - Precursory : beginning
    - Grammatical : sentence
    - Implausible : credibility
    - Invaluable : worth
    - Frenetic : movement

2. MALLEABLE : PLIABILITY ::
    - Lascivious : lust
    - Authoritative : tyranny
    - Morose : simplicity
    - Consolidated : accuracy
    - Toxic : healths

3. FLAG : VIGOR ::
    - Shield : protection
    - Arrange : marriage
    - Announce : position
    - Diminish : size
    - Record : sound

4. DRAWL : SPEAK ::
    - Spurt : expel
    - Foster : develop
    - Scintillate : flash
    - Pare : trim
    - Saunter : walk

5. LAMENTATION : REMORSE ::
    - Reassurance : interactions
    - Elegy : sorrow
    - Instigation : responses
    - Acknowledgement : ideas
    - Ornateness: filigree

6. NOISOME : ODOR ::
    - Precipitous : mountain
    - Judicious: system
    - Dispersive : discharge
    - Strident : sound
    - Epidemic : disease

7. SUPPLICANT : BESEECHING ::
    - Minister : tortured
    - Coquette: flirtatious
    - Benefactor : cordial
    - Lawyer : articulate
    - Thief : violent

Logic Analysis

An amusement park roller coaster includes five cars, numbered 1 through 5 from front to back. Each car accommodates up to two riders, seated side by side. Six people—Tom, Gwen, Laurie, Mark, Paul and Jack—are riding the coaster at the same time. Laurie is sharing a car. Mark is not sharing a car and is seated immediately behind an empty car. Tom is not sharing a car with either Gwen or Paul. Gwen is riding in either the third or fourth car.

1. Which of the following groups of riders could occupy the second car?

   (A) Laurie only
   (B) Tom and Gwen
   (C) Laurie and Mark
   (D) Jack and Tom
   (E) Jack, Gwen, and Paul

2. If Gwen is riding immediately behind Laurie's car and immediately ahead of Tom's car, all of the following must be true EXCEPT:

   (A) Gwen is riding in the fourth car.
   (B) Paul is riding in the third car.
   (C) Tom is riding in the fifth car.
   (D) Laurie is riding in the third car.
   (E) The first car is empty.

3. Which one of the following statements CANNOT be true?

   (A) Neither Tom nor Gwen is sharing a car with another rider.
   (B) Neither Mark nor Jack is sharing a car with another rider.
   (C) Tom is sharing a car, and Jack is sharing a car.
   (D) Gwen is sharing a car, and Paul is sharing a car.
   (E) Tom is sharing a car, and Gwen is sharing a car.

4. If Paul is riding in the second car, how many different combinations of riders are possible for the third car?

   (A) one
   (B) two
   (C) three
   (D) four
   (E) five

5. Assume that a seventh rider is riding with Jack in the first car, but that all other rules remain unchanged. Which of the following is a complete and accurate list of the riders who might be riding in the fifth car?

   (A) Mark
   (B) Gwen, Paul
   (C) Tom, Laurie, Paul
   (D) Tom, Laurie, Mark
   (E) Mark, Gwen, Paul, Tom, Laurie

Procedural Script and Debriefing

Participant comes in, hears you talking in Room C (you can play the sound file labeled "conversation" so the person hears the fake participant "talking to you") – you go out and take them into Room A and give them the consent form, showing them where the other participant is, and have them complete the form.
Participant completes the consent form

You come back in and close the door, tell them that you're just going to explain a little bit about the study.

The purpose of the present study is to examine the relationship between interpersonal contact, competition, and negative feedback. More specifically, this study looks at participants' willingness to give their peers negative feedback when mistakes are made in a competition, and how that willingness changes with the extent of contact they have with that person (i.e., whether the competition takes place face to face or online). For example, you have been randomized to the online condition, so you haven't had any interaction with the other person, and you haven't even seen them – in the other condition, you would have arrived here at the same time so you at least saw them and had some kind of interaction with the other participant. Because it's really important that you not know who the other person is, we'll be using an intercom to communicate, since it's hard for me to hear if I'm in the other room, so if you have any questions or whenever you're done with a section of the experiment,, just push this button and I'll come in here.

This study is being conducted by Ashley Girgis, a senior psychology major, and Dr. Harry Wallace in the Trinity University Department of Psychology. Like the consent form said, you must be 18 or older to participate in this study without parental consent. Participation is completely voluntary and you may withdraw from the study at any time. All the information you provide in the questionnaires will be kept strictly confidential, and any report of the study will not identify you personally in any way. At the completion of this study, you will be given a thorough explanation of the research techniques, possible publication, and scientific impact of the study.

During this session, you will complete questionnaires about various personality characteristics and how they relate to competition, and you will engage in a competency competition task with another student. After the competition, you will participate in a noise blast task to assess the effects of competition on negative feedback.

Go ahead and start on the competition task. This test is an assessment of general competency at the college level. It includes two sections: one analogies segment, and one logic analysis segment. These problems have been taken directly from actual GRE and LSAT tests. Please take your time and answer these questions to the best of your ability. Your competitor is completing the test in the other room. Your performance relative to the other participant will determine your position in the following task – whoever does better will be on the receiving end and will be in Room B, and whoever does worse will

*be giving feedback and will be in this room. If the difference is within 2-3 points (i.e. not significant), we will just decide based on alphabetical order. You have **20 (?) minutes** to complete the task. Feel free to ask questions if something is not clear. I'm going to be going in and out of the room to test the intercom and make sure the headphones are working for the noise blast task later. When you have finished the test please press the call button on the intercom.*

You leave as they work on the test – <u>come into Room B and after 3 or 4 minutes, play the sound file labeled "dead air and question", and after about 15 seconds go back to the other room to "test" the system – you can play with the buttons and pretend like you're not sure why it's not working, say something into the intercom, etc.</u> After that, leave again, and after a few minutes, play the sound file labeled "I'm done," then pretend like you're coming back in to get the other person's test. Then just wait until they buzz you to tell you they're finished, then you come back.

Okay, while I grade the tests, go ahead and fill out this questionnaire on the computer – it's just about different personality types and competition, and let me know when you're finished.

Leave again, come back when they buzz you.

For participants in CONDITION 1 (Private Feedback Condition): (*Experimenter returns with results). I graded the tests, and it looks like the other participant did better. I am going to inform the other person of the results and set up the punishment task.* ***(Leaves room, comes back a minute or two later)****. I just realized that I made a mistake – you actually got the better score However, because of the risk of shaking his confidence and confounding the study results, I'm not going to tell him about the mix up.* ***(Emphasize again that the subject actually did better, congratulate).***

For participants in CONDITION 2 (Public Feedback Condition): (*Experimenter returns with results). I graded the tests, and it looks like the other person did better. I am going to inform the other person of the results and set up the punishment task.*

For participants in the CONDITION 3 (Feedback Control Condition): *(Experimenter returns with results). It looks like you and the other person performed almost exactly the same, so we do it alphabetically and you will be giving feedback.*

This noise blast task relates to personality types, reactions to competition, and negative feedback. In this task, the winner of the competition task is always the performer, and the loser of the competition is always the monitor.
In this task, the monitor will present a figure discrimination task via the computer system. You both will see the same information on your respective screens. The performer is asked to discriminate between each set of figures and tell whether they are the same or different. As the monitor, you are asked to give noise feedback using this panel if the other person makes a mistake. You have total control over not only the intensity of the noise, but the duration as well. Please be assured that this noise will not harm the other

participant; s/he has agreed to this experiment and may stop at any time if s/he feels uncomfortable. Wait until I give the go ahead on the intercom, then go ahead and press continue.

You leave the room, and say "if you both are ready, you can go ahead and start," then play the sound file labeled "go ahead," then tell them they can start the noise blast task.

(Participant completes task)

We're almost finished. Please complete this final questionnaire (contains word completions) as honestly and thoughtfully as possible.

(Participant completes questionnaire)

(Debriefing): This experiment was designed to look at individual differences in reactions to an ego threat, specifically reactions when other people ***think*** *they did poorly on a task. In other words, this study was looking at whether you reacted differently and/or aggressively towards a competitor who thinks you did poorly even when you know you outperformed them on the competency task. We are studying different personality types and their propensity to react aggressively to situations such as this, in order to more fully understand whether it is the public perception of being substandard or the private notion that you are inferior that causes this aggressive reaction. In reality, there was no other participant in the other room; you were the only one here. The noises/voices you heard were all recorded, and the tasks were computer-simulated. There were no other people in the room, so you were basically blasting the computer with noise. Do you have any questions about the study?*

…***thank them, sign yellow card, etc.***