

# Grandiose and Vulnerable Narcissism: A Nomological Network Analysis

Joshua D. Miller, Brian J. Hoffman, Eric T. Gaughan,  
Brittany Gentile, Jessica Maples, and W. Keith Campbell  
University of Georgia

**ABSTRACT** Evidence has accrued to suggest that there are 2 distinct dimensions of narcissism, which are often labeled grandiose and vulnerable narcissism. Although individuals high on either of these dimensions interact with others in an antagonistic manner, they differ on other central constructs (e.g., Neuroticism, Extraversion). In the current study, we conducted an exploratory factor analysis of 3 prominent self-report measures of narcissism ( $N = 858$ ) to examine the convergent and discriminant validity of the resultant factors. A 2-factor structure was found, which supported the notion that these scales include content consistent with 2 relatively distinct constructs: grandiose and vulnerable narcissism. We then compared the similarity of the nomological networks of these dimensions in relation to indices of personality, interpersonal behavior, and psychopathology in a sample of undergraduates ( $n = 238$ ). Overall, the nomological networks of vulnerable and grandiose narcissism were unrelated. The current results support the need for a more explicit parsing of the narcissism construct at the level of conceptualization and assessment.

Over the past three decades, there has been a growing interest in the study of narcissism and an increasing recognition of the existence of substantial heterogeneity within the construct. Multiple studies have documented the existence of two or more forms of narcissism, which are often referred to as *grandiose* versus *vulnerable* narcissism (Dickinson & Pincus, 2003; Fossati et al., 2005; Miller & Campbell, 2008; Russ, Shedler, Bradley, & Westen, 2008; Wink, 1991). Grandiose narcissism primarily reflects traits related to grandiosity, aggression, and dominance, whereas vulnerable narcissism reflects a defensive and insecure grandiosity that obscures feelings of inadequacy, incompetence,

Correspondence concerning this article should be addressed to Joshua D. Miller, Department of Psychology, University of Georgia, Athens, GA 30602-3013. Email: jdmiller@uga.edu.

*Journal of Personality* 79:5, October 2011

© 2010 The Authors

Journal of Personality © 2011, Wiley Periodicals, Inc.

DOI: 10.1111/j.1467-6494.2010.00711.x

and negative affect. Individuals with traits of vulnerable narcissism have been described as being the “inhibited, shame-ridden, and hypersensitive shy type, whose low tolerance for attention from others and hypervigilant readiness for criticism or failure makes him/her more socially passive” (Ronningstam, 2009, p. 113). Most experts agree that the *Diagnostic and Statistical Manual of Mental Disorders*, 4th Edition (*DSM-IV*; American Psychiatric Association, 2000) symptoms of narcissistic personality disorder (NPD) emphasizes the grandiose dimension over the vulnerable dimension (e.g., Cain, Pincus, & Ansell, 2008), although the corresponding descriptive text includes descriptions of both grandiosity and vulnerability associated with NPD.

Unfortunately, a review of the literature on narcissism makes it clear that the distinction between these two dimensions has not been consistently made in either the empirical or theoretical literature on narcissism, which we believe has had “serious consequences for the field as a great deal of unreliability is introduced into our communications, assessments, and conceptualizations” of narcissism (Miller, Widiger, & Campbell, 2010). A recent empirical example of this problem can be seen in the results of a study by Samuel and Widiger (2008), in which they examined the correlations among five self-report measures of narcissism and NPD, as well as each measure’s respective correlations with a measure of the Five Factor Model (FFM) of personality, the Revised NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992). Despite inflation due to shared method variance, the convergent correlation among the five narcissism measures was only .45. The narcissism measures also demonstrated divergent patterns of correlations with the NEO PI-R. In fact, the authors noted that the measures only shared a common negative relation with FFM Agreeableness. The narcissism measures diverged in important ways, however, with regard to their relations with Extraversion ( $r$ s ranged from  $-.15$  to  $.48$ ) and Neuroticism ( $r$ s ranged from  $-.40$  to  $.13$ ).

Overall, we believe these findings may be indicative of the comingling of grandiose and vulnerable narcissism that has occurred both at the level of conceptualization and assessment of the narcissism/NPD construct. If so, this represents a significant barrier to the development of a cohesive and valid theoretical and empirical literature on narcissism and NPD because the nomological networks of these two forms of narcissism appear to be substantially different. In fact, it is our contention that the primary feature shared by these two forms of narcissism is a tendency to interact with others in an an-

tagonistic manner (e.g., manipulative, callous, noncooperative, angry). On many other central constructs, grandiose and vulnerable narcissism appear to be substantially different.

The goal of the present article is to assess the nomological networks associated with grandiose and vulnerable narcissism. We use a range of criteria to assess the networks that can be broadly grouped into the domains of personality (e.g., FFM, self-esteem, entitlement), interpersonal behavior (e.g., attachment, social cognition, strangers' rating of personality), and psychopathology (e.g., depression, anxiety, personality disorders). Given the large number of external criteria used, we then compare these grandiose and vulnerable narcissism factors via the calculation of profile fit indices. This latter approach is a procedure whereby the profile of a construct, as assessed by its correlations with a wide range of markers, can be compared with the profile generated by another construct. The results of this study should provide a clear portrait of the similarities and distinctions between grandiose and vulnerable narcissism.

### Review of the Nomological Nets of Grandiose and Vulnerable Narcissism

#### *Personality*

From a general trait perspective, several studies have demonstrated that grandiose narcissism is positively related to Extraversion and negatively related to Agreeableness and Neuroticism from the FFM (e.g., Miller & Campbell, 2008; Paulhus & Williams, 2002). Alternatively, vulnerable narcissism is primarily positively related to Neuroticism and negatively related to Extraversion and Agreeableness (e.g., Hendin & Cheek, 1997; Miller, Dir, et al., 2010). From an FFM perspective, these two narcissism dimensions appear to share only a tendency to interact with others in a cold, hostile, and antagonistic manner. Even within this interpersonal domain, there is some evidence to suggest the traits associated with grandiose and vulnerable narcissism are not identical. For example, within the Agreeableness domain, Miller, Dir, et al. (2010) found that vulnerable narcissism manifested its largest correlation with the facet of trust ( $r = -.42$ ) and its smallest correlation with modesty ( $r = -.13$ ), whereas grandiose narcissism manifested its largest correlation with modesty ( $r = -.62$ ) and its smallest correlation with trust ( $r = -.06$ ). Although individuals high on either narcissism

dimension behave antagonistically, the motivation behind these behaviors may be quite different (e.g., vulnerable narcissism: *hostile attribution bias*; grandiose narcissism: *self-enhancement*).

Grandiose and vulnerable narcissism also manifest substantially different relations with self-esteem, with grandiose narcissism typically manifesting a small to moderate positive correlation and vulnerable narcissism manifesting a moderate negative correlation (Miller & Campbell, 2008; Pincus et al., 2009; Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). The divergent relations between these forms of narcissism and self-esteem are indicative of fundamental differences in the nature of these constructs.

### *Interpersonal Behavior*

Grandiose and vulnerable forms of narcissism are related differentially to a number of environmental factors thought to be important in the etiology of narcissism, such as child abuse and poor parenting practices. Although the empirical evidence is limited, research suggests that only vulnerable narcissism is significantly related to reports of childhood abuse and problematic parenting (e.g., Miller, Dir, et al., 2010; Otway & Vignoles, 2006). Given these potentially different childhood experiences and personality traits, one would expect that these forms of narcissism would be differentially related to adult interpersonal styles, which may develop due to a number of factors, including early attachment styles and temperamental differences.

Two adult attachment dimensions that are often described, in isolation and combination, are attachment avoidance (i.e., maintaining emotional distance from romantic partners and overemphasizing autonomy and independence) and attachment anxiety (i.e., fear that romantic relationships will end or that one's love is not fully reciprocated). These dimensions can also be combined such that individuals who are high on both are described as having a fearful attachment style, those high on avoidance and low on anxiety are described as having a dismissive attachment style, and those high on anxiety and low on avoidance are described as having a preoccupied attachment style. Vulnerable narcissism appears to be related to an anxious or fearful attachment (Dickinson & Pincus, 2003; Otway & Vignoles, 2006), whereas grandiose narcissism seems related to either a secure or dismissive attachment style (e.g., Dickinson & Pincus, 2003; Miller et al., 2010).

Individuals high on either vulnerable or grandiose narcissism are also viewed differently by others with whom they interact. Wink (1991) found that spouses described individuals with high scores on either narcissism dimension as “bossy, intolerant, cruel, argumentative, dishonest, opportunistic, conceited, arrogant, and demanding” (Wink, 1991, p. 595; i.e., *antagonistic*). Spouses of individuals high on grandiose narcissism, however, described them as being “aggressive, hardheaded, immodest, outspoken, assertive and determined” (Wink, p. 595; i.e., *extraverted/dominant*). Alternatively, spouses of individuals high on vulnerable narcissism described them as “worrying, emotional, defensive, anxious, bitter, tense, and complaining” (Wink, p. 595; i.e., *neurotic*).

### *Psychopathology, Affect, and Treatment Implications*

Grandiose and vulnerable narcissism also manifest divergent relations with indices of psychopathology, such as symptoms of anxiety, depression, and psychological distress. Grandiose narcissism is typically either negatively related or unrelated to symptoms of distress (e.g., Sedikides et al., 2004), whereas vulnerable narcissism manifests significant correlations with symptoms such as depression, anxiety, hostility, and paranoia (e.g., Miller, Dir, et al., 2010). The two also manifest divergent relations with other forms of personality pathology. Grandiose narcissism appears to be a stronger correlate of antisocial and histrionic personality disorders (PDs), whereas vulnerable narcissism appears to be a stronger correlate of avoidant and borderline PDs (Dickinson & Pincus, 2003; Miller, Dir, et al., 2010). It is noteworthy that Miller, Dir, and colleagues (2010) found that vulnerable narcissism created a personality profile that was highly consistent ( $r = .94$ ) with the trait profile created by borderline personality disorder (BPD). In fact, these authors suggested that vulnerable narcissism may actually be a nearer neighbor of BPD than NPD, given the shared predispositions to negative emotions. Consistent with these findings, vulnerable narcissism, like BPD, is more strongly linked with nonsuicidal self-injury and suicide attempts (e.g., Pincus et al., 2009). In addition, these forms of narcissism are differentially associated with the utilization of psychiatric treatment such that grandiose narcissism is negatively associated with treatment utilization, whereas vulnerable narcissism is positively associated with utilization (Pincus et al., 2009).

### Current Study

To examine the convergent and discriminant validity of these factors, we first selected three prominent measures of grandiose narcissism (Narcissistic Personality Inventory [NPI]; Raskin & Terry, 1988), vulnerable narcissism (Hypersensitive Narcissism Scale [HSNS]; Hendin & Cheek, 1997), or both (Pathological Narcissism Inventory [PNI]; Pincus et al., 2009). These scales were then submitted to an exploratory factor analysis (EFA) to identify structurally valid indicators of these narcissism dimensions. The factor structure was explored in a large data set that combined data from two samples (total  $N = 858$ ; Sample 1:  $n = 620$ ; Sample 2:  $n = 238$ ). Two narcissism factors were extracted (grandiose and vulnerable) and compared (in Sample 2) in relation to indices of personality, interpersonal behavior, and psychopathology.

We expected that grandiose and vulnerable narcissism would manifest largely divergent relations with these various constructs in a manner that is consistent with the extant literature reviewed earlier. For example, we expected vulnerable narcissism to be more strongly related to indices of negative emotionality, psychological distress, lower self-esteem, and poorer attachment styles. Conversely, we expected that the grandiose narcissism dimension would demonstrate a pattern of correlations indicative of an outgoing, aggressive, and dominant intra- and interpersonal style (e.g., positive relations with self and stranger ratings of Extraversion, more self-focused negotiation style, higher self-esteem). Consistent with previous research, we expected that the narcissism variants would mainly share the use of cold, hostile, and selfish interpersonal strategies for relating to others but would diverge substantially in relation to several personality constructs (e.g., Neuroticism, Extraversion, self-esteem), interpersonal behavior (e.g., attachment and negotiation styles, how strangers would rate the personality traits associated with these dimensions [using Oltmanns, Friedman, Fiedler, & Turkheimer's (2004) "thin slice" methodology]), and psychopathology (e.g., depression, anxiety, negative affect, *DSM-IV* PDs).<sup>1</sup>

1. The thin slice methodology used here is derived from research by Oltmanns and colleagues (2004), in which strangers are asked to rate participants' personalities (FFM domains) and other characteristics (in this case, physical attractiveness, likability, and narcissism) after brief exposures to the participant. In the current study, graduate students rated the participants on these variables after

## METHOD

### Participants and Procedure

#### *Sample 1*

Participants were 620 undergraduate men and women recruited from the research participant pool at a large southeastern university (60% women; mean age = 19.20;  $SD = 1.94$ ; 78% Caucasian). Participants received research credit in exchange for their participation. Upon signing informed consent, participants completed a packet containing a variety of self-report questionnaires. Participants were debriefed at the completion of the study.

#### *Sample 2*

Participants were 238 undergraduate men and women recruited from the research participant pool from the same university (60% women; mean age = 19.13;  $SD = 1.26$ ; 83% Caucasian). Participants received research credit in exchange for their participation. Upon signing informed consent, participants completed a packet containing a variety of self-report questionnaires and laboratory tasks. At the end of the session, participants individually completed a videotaped 60-second interview in which they were asked to respond to the following question: “What do you like doing?” Participants were debriefed at the completion of the study. Institutional Review Board approval was obtained for both studies.

#### *Samples 1 and 2 Narcissism Measures*

*Narcissistic Personality Inventory (NPI)*. The NPI (Raskin & Terry, 1988) is a 40-item self-report assessment of trait narcissism. The NPI total score manifests good internal consistency and significant correlations with expert ratings of NPD (Miller & Campbell, 2008). In the current study, we used 23 items that were divided into two factors (Leadership/Authority [L/A] = 9 items; Exhibitionism/Entitlement [E/E] = 14 items) on the basis of factor analyses by Corry, Merritt, Mrug, and Pamp (2008) and Kubarych, Deary, and Austin (2004). We used these two NPI factors (scored on the basis of these 23 items) as they evidence better replicability than other factor structures based on the NPI (e.g., seven-factor structure; see Corry et al., 2008, and Kubarych et al., 2004). See Table 1 for the alphas for all narcissism scales.

watching 60-s videotaped clips of the participants answering, “What do you enjoy doing?”

*Hypersensitive Narcissism Scale (HSNS)*. The HSNS (Hendin & Cheek, 1997) is a 10-item self-report measure that reflects hypersensitivity, vulnerability, and entitlement. Previous research suggests that the HSNS manifests adequate internal consistency and is correlated with measures of covert narcissism, Neuroticism, and disagreeableness (Hendin & Cheek, 1997).

*Pathological Narcissism Inventory (PNI)*. The PNI (Pincus et al., 2009) is a 52-item self-report measure of traits related to vulnerable and grandiose narcissism. Four subscales are thought to be related to vulnerable narcissism: contingent self-esteem (PNI CSE), hiding the self (PNI HS), devaluing (PNI Dev), and entitlement rage (PNI ER). Three subscales are thought to be related to grandiose narcissism: self-sacrificing self-enhancement (PNI SSSE), grandiose fantasies (PNI GF), and exploitativeness (PNI E).

#### *Sample 2 Personality Measures*

Descriptive data are reported in Table 3.

*Revised NEO Personality Inventory (NEO PI-R)*. The NEO PI-R (Costa & McCrae, 1992) is a 240-item self-report measure of the FFM. The higher order domains of the NEO PI-R include Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness; each of these domains is underlain by six more specific facets.

*Rosenberg Self-Esteem Scale (RSES)*. The RSES (Rosenberg, 1965) is a 10-item global measure of self-esteem in which the items are scored on a 1 (*Disagree strongly*) to 4 (*Agree strongly*) scale.

*Psychological Entitlement Scale (PES)*. The PES (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004) is a nine-item self-report measure of the extent to which individuals believe that they deserve and are entitled to more than others. Items are scored on a 1 (*strong disagreement*) to 7 (*strong agreement*) scale.

#### *Sample 2 Interpersonal Behavior Measures*

Descriptive data are reported in Table 4.

*Experiences in Close Relationships-Revised (ECR-R)*. The ECR-R (Fraley, Waller, & Brennan, 2000) is a 36-item self-report measure of two adult attachment styles: avoidance (18 items) and anxiety (18 items).

The ECR-R subscales manifest good internal consistency and structural validity, as well as convergent and divergent validity with expected constructs (e.g., worry, avoidance of touch; Fairchild & Finney, 2006).

*Social vignettes.* Participants read 12 vignettes (Tremblay & Belchevski, 2004) describing a hypothetical interaction in which another person performs a behavior that might be considered provocative to the participant (e.g., “You are at a local dance club. While you are dancing a stranger bumps into you very roughly.”); four were “hostile” in nature, four were “ambiguous,” and four were “unintentional.” The participants were then asked questions answered on a 1 (*not at all likely*) to 11 (*extremely likely*) scale, which assessed the likelihood of (a) experiencing anger during the interaction, (b) expressing anger toward the other individual in the interaction, (c) being rude, (d) yelling or swearing, (e) threatening the other person if the situation was not resolved, and (f) using physical force if the situation was not resolved. The answers for each of these six variables were summed across the 12 vignettes.

*Resource dilemma.* This task, created by Sheldon and McGregor (2000), is based on the “tragedy of the commons” dilemma. Participants were required to believe they owned a timber company and were competing with three similar companies to harvest trees in the same national forest. Three dependent variables were created from this task: acquisitiveness (how much the participant hoped to profit more than the other companies), apprehensiveness (the degree to which the participant expected the other companies to try to maximize their own profits), and harvest bids (how many hectares the participant would “bid” to cut down each year across a 4-year period; each company could bid to harvest 0 to 10 hectares per year). The dilemma in this situation is that if all four companies put their own profit motives first and harvest too much, the forest will be deforested, leaving no available resources for all four companies. Participants were told that the forest regenerates at a rate of 10% each year. Following Sheldon and McGregor, participants are told: “It may be to the four companies’ collective advantage to make smaller bids. However, another danger is that a company will not do as well because it cuts less than the other three companies. Thus, it may be to each company’s individual advantage to make larger bids” (p. 393). Acquisitiveness and apprehensiveness were each measured with one question. The harvest bids variable was measured with five questions (one bid per year).

*Thin slices.* Following the protocol described by Oltmanns and colleagues (2004), each participant was individually videotaped for 60 s while answering the following question: “What do you enjoy doing?” Each

video clip was then rated by, on average, 11 raters who were doctoral students in a clinical psychology program. The graduate students rated the following constructs (using one item per construct) on a 1 to 5 Likert-type scale: Neuroticism, Extraversion, Openness to Experience, Agreeableness, Conscientiousness, physical attractiveness, likability, and narcissism. Descriptions for the five personality domains were consistent with FFM definitions (e.g., Costa & McCrae, 1992). For physical attractiveness, no descriptors were given. For likability, raters were asked, "How likable do you find this individual (would you want to get to know him/her better)?" For narcissism, raters were given the following descriptors to go along with the "narcissistic" label: self-centered, grandiose, and overly confident. Interrater reliability was calculated using intraclass correlations, which ranged from .77 (likability) to .92 (physical attractiveness), with a median of .86. Composites were created for subsequent analyses by taking the mean of all available ratings.

### *Sample 2 Psychopathology and Affect Measures*

Descriptive data are reported in Table 5.

*Brief Symptom Inventory (BSI).* The BSI (Derogatis & Melisaratos, 1983) is a 53-item measure of psychological symptoms experienced during the past week that includes specific symptom scales and a global severity index (GSI).

*Positive and Negative Affect Schedule-Expanded Form (PANAS-X).* The PANAS-X (Watson & Clark, 1994) is a 60-item self-report measure of affect. In the current study, we report on the factors of positive affect (10 items) and negative affect (10 items).

*Structured Clinical Interview for DSM-IV Personality Disorders-Personality Questionnaire (SCID-II/PQ).* The SCID-II P/Q (First, Gibbon, Spitzer, Williams, & Benjamin, 1997) is a 119-item self-report questionnaire designed to assess the *DSM-IV* PDs.

## **RESULTS**

### *Bivariate Correlations Among Self-Report Narcissism Scales*

Because of the number of significance tests conducted, a *p*-value equal to or less than .001 was used for all analyses. The 10 self-report narcissism scales evinced correlations with one another ranging from

**Table 1**  
 Bivariate Correlations Among the 10 Narcissism Scales

|          | $\alpha$ | 1     | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10 |
|----------|----------|-------|------|------|------|------|------|------|------|------|----|
| NPI L/A  | .92      | —     |      |      |      |      |      |      |      |      |    |
| NPI E/E  | .92      | .50*  | —    |      |      |      |      |      |      |      |    |
| PNI CSE  | .94      | -.16* | .07  | —    |      |      |      |      |      |      |    |
| PNI E    | .83      | .41*  | .32* | .02  | —    |      |      |      |      |      |    |
| PNI SSSE | .74      | .13*  | .14* | .28* | .30* | —    |      |      |      |      |    |
| PNI HS   | .80      | -.07  | -.05 | .39* | .18* | .21* | —    |      |      |      |    |
| PNI GF   | .91      | .25*  | .22* | .29* | .26* | .38* | .26* | —    |      |      |    |
| PNI Dev  | .82      | -.01  | .07* | .47* | .12  | .21* | .39* | .23* | —    |      |    |
| PNI ER   | .89      | .13*  | .28* | .55* | .28* | .26* | .32* | .36* | .56* | —    |    |
| HSNS     | .71      | -.04  | .11  | .57* | .09  | .16* | .32* | .30* | .46* | .55* | —  |

*Note.*  $N = 858$ . NPI L/A = Narcissistic Personality Inventory Leadership/Authority; NPI E/E = Exhibitionism/Entitlement; PNI CSE = Pathological Narcissism Inventory Contingent Self-Esteem; PNI E = Exploitativeness; PNI SSSE = Self-Serving Self-Enhancement; PNI HS = Hiding the Self; PNI GF = Grandiose Fantasies; PNI Dev = Devaluing; PNI ER = Entitlement Rage; HSNS = Hypersensitive Narcissism Scale. \* $p \leq .001$ .

-.16 (NPI Leadership/Authority—PNI Contingent Self-Esteem) to .57 (PNI Contingent Self-Esteem—Hypersensitive Narcissism Scale), with a median of .26 (see Table 1).

*Factor Structure of the Self-Report Narcissism Measures*

To determine the factor structure of the narcissism scales, we conducted an EFA using all available data ( $N = 858$ ; principal axis factoring with an oblimin rotation) of the two scale-level scores from the NPI (L/A and E/E), seven subscales from the PNI (PNI CSE, PNI E, PNI SSSE, PNI HS, PNI GF, PNI Dev, and PNI ER), and the HSNS. The EFA resulted in two eigenvalues with values of 1.0 or greater and a scree plot suggestive of two factors. The first five eigenvalues were as follows: 3.385, 1.917, .995, .794, and .658; the first two factors explained 53.02% of the variance. We next employed both the Parallel Analysis (PA) method of Horn (1965) and the Minimum Average Partial (MAP) method of Velicer (1976) to identify the optimal number of factors. The PA method suggested that up to four

factors could be extracted, whereas the MAP method suggested that only two factors be extracted.<sup>2</sup>

The two-factor solution is presented in Table 2. Factor 1 comprised many of the scales typically associated with vulnerable narcissism: PNI Contingent Self-Esteem, PNI Hiding the Self, PNI Devaluing, PNI Entitlement Rage, and the Hypersensitive Narcissism Scale; we titled this factor “vulnerable narcissism.” This factor also comprised significant loadings from scales thought to represent grandiose narcissism as assessed by the PNI (i.e., Self-Serving Self-Enhancement and Grandiose Fantasies). Factor 2 comprised many of the scales associated with grandiose narcissism, including NPI Leadership/Authority, NPI Exhibitionism/Entitlement, and PNI Exploitativeness, as well as secondary loadings from PNI Grandiose Fantasies and PNI Entitlement Rage. We titled this factor “grandiose narcissism.” The factors manifested an interrelation of .22. The factor scores generated from the EFA were saved and used as the vulnerable and grandiose narcissism scores when examined in relation to the criterion variables from Sample 2.

*FFM correlates of individual narcissism scales.* Before proceeding to an examination of the convergences and divergences of the two narcissism factors, we explored further the nature of the 10 individual narcissism scales via an examination of their correlations with the FFM domains in Sample 2 (see Table 2). We did this to understand why certain narcissism scales loaded on the vulnerable rather than

2. A three-factor solution resulted in the following factor loadings: *Factor 1*: PNI ER (.78), PNI CSE (.76), HSNS (.72), PNI Dev (.66), PNI HS (.47), PNI GF (.39, secondary loading); *Factor 2*: NPI L/A (.78), NPI E/E (.66), PNI E (.49); *Factor 3*: PNI SSSE (.61), PNI GF (.56), PNI E (.48, secondary loading), PNI HS (.43, secondary loading), PNI ER (.43, secondary loading), PNI CSE (.38, secondary loading), PNI Dev (.35, secondary loading). The first factors in both the two- and three-factor solution (i.e., vulnerable narcissism) were significantly correlated;  $r = .99$ . The same was true for the second factors in both solutions (i.e., grandiose narcissism);  $r = .95$ . The third factor in a three-factor solution manifested significant correlations with both the vulnerable factor ( $r = .73$ ) and grandiose factor ( $r = .60$ ) used in the current analyses. From an FFM perspective, this third factor was significantly positively related to Neuroticism ( $r = .30$ ) and Openness ( $r = .26$ ) and negatively correlated with Agreeableness ( $r = -.28$ ). The fourth factor in a four-factor solution manifested no primary factor loading.

**Table 2**  
**Exploratory Factor Analysis of Narcissism Scales and Relations**  
**Between Individual Narcissism Scales and the FFM**

|                     | 1<br>(Vulnerable) | 2<br>(Grandiose) | 3 (N) | 4 (E) | 5 (O) | 6 (A) | 7 (C) |
|---------------------|-------------------|------------------|-------|-------|-------|-------|-------|
| NPI L/A             | -.03              | <b>.78</b>       | -.26* | .45*  | -.01  | -.46* | .13   |
| NPI E/E             | .15               | <b>.60</b>       | -.15  | .49*  | .17   | -.41* | -.06  |
| PNI CSE             | <b>.77</b>        | .02              | .67*  | -.17  | .04   | .00   | -.15  |
| PNI E               | .22               | <b>.58</b>       | -.09  | .23*  | .22   | -.49* | -.01  |
| PNI SSSE            | <b>.37</b>        | .32              | .22   | .26*  | .26*  | .03   | .15   |
| PNI HS              | <b>.51</b>        | .07              | .30*  | -.20  | .07   | -.23* | -.04  |
| PNI GF              | <b>.45</b>        | <b>.41</b>       | .19   | .12   | .29*  | -.15  | .05   |
| PNI Dev             | <b>.67</b>        | .13              | .51*  | -.23* | -.03  | -.15  | -.11  |
| PNI ER              | <b>.76</b>        | <b>.37</b>       | .44*  | -.07  | -.07  | -.38* | -.20  |
| HSNS                | <b>.69</b>        | .11              | .58*  | -.24* | -.07  | -.27* | -.13  |
| <b>Correlations</b> |                   |                  |       |       |       |       |       |
| Factor 2            | .23               | —                |       |       |       |       |       |

*Note.* *N* (EFA) = 858. Correlations between narcissism scales and FFM domains (*N* = 238, Sample 2). Factor loadings  $\leq .35$  are boldfaced. NPI L/A = Narcissistic Personality Inventory Leadership/Authority; NPI E/E = Exhibitionism/Entitlement; PNI CSE = Pathological Narcissism Inventory Contingent Self-Esteem; PNI E = Exploitativeness; PNI SSSE = Self-Serving Self-Enhancement; PNI HS = Hiding the Self; PNI GF = Grandiose Fantasies; PNI Dev = Devaluing; PNI ER = Entitlement Rage; HSNS = Hypersensitive Narcissism Scale; N = Neuroticism; E = Extraversion; O = Openness; A = Agreeableness; C = Conscientiousness. \* $p \leq .001$ .

grandiose factor. Both PNI Self-Serving Self-Enhancement and Grandiose Fantasies manifested null correlations with FFM Agreeableness (which includes facets such as modesty) and null to small correlations with FFM Extraversion (which includes facets such as assertiveness); these are the primary FFM domains thought to compose grandiose narcissism (Lynam & Widiger, 2001; Paulhus, 2001). The other scales that loaded strongly on the grandiose narcissism factor included significant correlations with both Agreeableness (negative) and Extraversion (positive). In addition, both PNI scales manifested significant positive correlations with FFM Neuroticism, which is similar to the other scales that compose the vulnerable factor (but unlike the scales that compose the grandiose narcissism factor).

*Vulnerable and Grandiose Narcissism and Basic Personality*

Next, we examined the trait profiles generated by the two narcissism factors with the FFM domains and facets, as well as measures of self-esteem and psychological entitlement. In order to quantify the overall similarity of the trait profiles generated by the two narcissism factors, we correlated the two columns of data found in Table 3. The pattern of personality correlates for vulnerable narcissism was uncorrelated with the correlates for grandiose narcissism;  $r = -.10$ , *ns*.

In addition to examining the bivariate relations between the narcissism factors and these basic personality dimensions, we also tested whether the correlates were significantly different from one another (i.e., test of dependent *r*s; see Cohen & Cohen, 1983, pp. 56–57). For the sake of space, we review here only the FFM domain-level findings and the findings for self-esteem and entitlement. As can be seen in Table 3, vulnerable narcissism was significantly positively related to Neuroticism, whereas grandiose narcissism manifested a nonsignificant negative relation with this domain; the correlations were significantly different from one another ( $t = 13.33$ ,  $p \leq .001$ ). Conversely, grandiose narcissism was significantly positively related to Extraversion, whereas vulnerable narcissism was nonsignificantly negatively related to this domain; these correlations were significantly different from one another ( $t = 9.32$ ,  $p \leq .001$ ). Both vulnerable and grandiose narcissism factors were significantly negatively related to Agreeableness, although the correlation was significantly stronger for grandiose narcissism than for vulnerable narcissism ( $t = 4.83$ ,  $p \leq .001$ ). Neither narcissism factor was significantly related to Openness to Experience or Conscientiousness. The narcissism scores manifested divergent relations with self-esteem such that vulnerable narcissism manifested a moderate to strong negative correlation, whereas grandiose narcissism manifested a significant small to moderate positive relation; these correlations were significantly different from one another ( $t = 10.71$ ,  $p \leq .001$ ). Both narcissism scores manifested small to moderate positive correlations with psychological entitlement that were not significantly different from one another.

*Vulnerable and Grandiose Narcissism and Markers of Interpersonal Behavior*

*Adult attachment.* First, we examined the correlations between the narcissism factors and two adult attachment styles: anxiety and avoid-

**Table 3**  
Correlations Between Narcissism Factors and the Personality Traits

|                          | <i>M</i> | <i>SD</i> | $\alpha$ | Vulnerable         | Grandiose          |
|--------------------------|----------|-----------|----------|--------------------|--------------------|
| <b>Neuroticism</b>       | 2.90     | .48       | .91      | .65* <sup>a</sup>  | -.13 <sup>b</sup>  |
| Anxiety                  | 3.14     | .70       | .78      | .47* <sup>a</sup>  | -.21 <sup>b</sup>  |
| Angry hostility          | 2.69     | .64       | .74      | .48*               | .27*               |
| Depression               | 2.79     | .74       | .82      | .60* <sup>a</sup>  | -.18 <sup>b</sup>  |
| Self-consciousness       | 3.01     | .66       | .73      | .53* <sup>a</sup>  | -.35* <sup>b</sup> |
| Impulsiveness            | 3.20     | .58       | .65      | .34*               | .18                |
| Vulnerability            | 2.59     | .58       | .72      | .44* <sup>a</sup>  | -.26* <sup>b</sup> |
| <b>Extraversion</b>      | 3.58     | .41       | .89      | -.18 <sup>a</sup>  | .46* <sup>b</sup>  |
| Warmth                   | 3.98     | .54       | .75      | -.17               | .08                |
| Gregariousness           | 3.60     | .63       | .73      | -.09 <sup>a</sup>  | .29* <sup>b</sup>  |
| Assertiveness            | 3.17     | .65       | .77      | -.22 <sup>a</sup>  | .63* <sup>b</sup>  |
| Activity                 | 3.25     | .50       | .56      | -.10 <sup>a</sup>  | .35* <sup>b</sup>  |
| Excitement seeking       | 3.67     | .60       | .64      | .01 <sup>a</sup>   | .43* <sup>b</sup>  |
| Positive emotions        | 3.79     | .57       | .70      | -.20 <sup>a</sup>  | .13 <sup>b</sup>   |
| <b>Openness</b>          | 3.48     | .44       | .89      | .04                | .13                |
| Fantasy                  | 3.55     | .66       | .76      | .08                | .09                |
| Aesthetics               | 3.42     | .82       | .83      | .06                | -.01               |
| Feelings                 | 3.78     | .55       | .70      | .22                | .15                |
| Actions                  | 2.92     | .50       | .56      | -.19 <sup>a</sup>  | .12 <sup>b</sup>   |
| Ideas                    | 3.58     | .71       | .80      | -.02               | .23*               |
| Values                   | 3.62     | .56       | .64      | -.03               | -.01               |
| <b>Agreeableness</b>     | 3.44     | .44       | .91      | -.24* <sup>a</sup> | -.57* <sup>b</sup> |
| Trust                    | 3.36     | .72       | .85      | -.41*              | -.25*              |
| Straightforwardness      | 3.33     | .68       | .76      | -.14 <sup>a</sup>  | -.56* <sup>b</sup> |
| Altruism                 | 3.95     | .54       | .77      | -.13               | -.18               |
| Compliance               | 3.10     | .65       | .74      | -.16 <sup>a</sup>  | -.53* <sup>b</sup> |
| Modesty                  | 3.33     | .59       | .73      | -.07 <sup>a</sup>  | -.58* <sup>b</sup> |
| Tendermindedness         | 3.55     | .51       | .56      | -.06 <sup>a</sup>  | -.34* <sup>b</sup> |
| <b>Conscientiousness</b> | 3.32     | .45       | .91      | -.16               | .05                |
| Competence               | 3.60     | .50       | .63      | -.15 <sup>a</sup>  | .19 <sup>b</sup>   |
| Order                    | 3.11     | .65       | .69      | -.01               | .07                |
| Dutifulness              | 3.57     | .55       | .65      | -.08               | -.02               |
| Achievement striving     | 3.35     | .58       | .74      | -.11 <sup>a</sup>  | .23* <sup>b</sup>  |
| Self-discipline          | 3.21     | .65       | .79      | -.29* <sup>a</sup> | .06 <sup>b</sup>   |
| Deliberation             | 3.07     | .64       | .79      | -.08               | -.25*              |
| Self-esteem              | 31.14    | 4.9       | .89      | -.46* <sup>a</sup> | .25* <sup>b</sup>  |
| Entitlement              | 35.56    | 9.80      | .86      | .24*               | .30*               |

Note. \* $p \leq .001$ . Correlations within each row with different superscripts are significantly different at  $p \leq .001$  (test of dependent  $r$ s; Cohen & Cohen, 1983).

**Table 4**  
Correlations Between Narcissism Factors and Interpersonal Relations

|                            | <i>M</i> | <i>SD</i> | $\alpha$ | Vulnerable         | Grandiose          |
|----------------------------|----------|-----------|----------|--------------------|--------------------|
| <i>Attachment Styles</i>   |          |           |          |                    |                    |
| Anxiety                    | 66.88    | 23.74     | .93      | .52* <sup>ai</sup> | -.11 <sup>b</sup>  |
| Avoidance                  | 54.98    | 18.90     | .93      | .27* <sup>ai</sup> | -.01 <sup>b</sup>  |
| <i>Social Cognition</i>    |          |           |          |                    |                    |
| Experience anger           | 49.17    | 12.60     | .87      | .43*               | .28*               |
| Express anger              | 43.20    | 13.73     | .87      | .29*               | .45*               |
| Be rude                    | 38.23    | 14.47     | .88      | .27*               | .44*               |
| Yell                       | 26.66    | 13.30     | .88      | .16                | .37*               |
| Threaten                   | 20.87    | 11.14     | .89      | .10                | .33*               |
| Use physical aggression    | 17.80    | 8.96      | .87      | -.01               | .23*               |
| <i>Negotiation</i>         |          |           |          |                    |                    |
| Acquisitiveness            | 5.28     | 1.56      |          | .06                | .28*               |
| Apprehensiveness           | 4.69     | 1.88      |          | .15                | .02                |
| Harvest bids               | 35.87    | 10.10     | .84      | -.02               | .23*               |
| <i>Thin Slices Ratings</i> |          |           |          |                    |                    |
| Neuroticism                | 2.81     | .56       |          | .16 <sup>a</sup>   | -.25* <sup>b</sup> |
| Extraversion               | 3.34     | .71       |          | -.18 <sup>a</sup>  | .34* <sup>b</sup>  |
| Openness                   | 3.19     | .58       |          | -.07               | .10                |
| Agreeableness              | 3.57     | .42       |          | .00                | -.10               |
| Conscientiousness          | 3.39     | .56       |          | .11                | -.13               |
| Attractiveness             | 3.09     | .71       |          | -.04               | .15                |
| Likability                 | 3.12     | .48       |          | -.08               | .15                |
| Narcissism                 | 2.44     | .56       |          | -.03 <sup>a</sup>  | .32* <sup>b</sup>  |

*Note.* Correlations within each row with different superscripts are significantly different at  $p \leq .001$  (test of dependent  $r$ s; Cohen & Cohen, 1983).

\* $p \leq .001$ .

ance (see Table 4). Vulnerable narcissism was significantly positively correlated with both the anxiety and avoidance attachment styles, whereas grandiose narcissism manifested nonsignificant correlations with both dimensions. These correlations were significantly different across the narcissism dimensions ( $t_s \geq 3.57$ ,  $p \leq .001$ ).

*Social cognition.* Across vignettes assessing negative social interactions of an ambiguous, neutral, and overtly intentional nature, vulnerable narcissism was significantly positively correlated with experiencing and expressing anger, as well as being rude toward

the protagonist of the vignettes (see Table 4). Grandiose narcissism was also significantly positively related to experiencing and expressing anger, as well as being rude, yelling, threatening, and being willing to use physical aggression to resolve the situation. The correlations manifested by the grandiose and vulnerable narcissism factors, however, were not statistically significantly different for any of the social cognition variables.

*Negotiation.* Next, we examined the correlations between the narcissism factors and three negotiation/decision-making variables from a “tragedy of the commons”-related laboratory task. Vulnerable narcissism was unrelated to the three negotiation variables, whereas grandiose narcissism was significantly positively correlated with two of the three variables: acquisitiveness and harvest bids. From the start, individuals higher on grandiose narcissism were more oriented toward making a larger profit and made larger “bids” to obtain this profit. The correlations for the two narcissism dimensions and the negotiation scales were not statistically significantly different from one another.

*Thin slice ratings of personality, attractiveness, likability, and narcissism.* We examined the relations between the narcissism dimensions and the five “thin slice” ratings of personality based on the FFM, as well as ratings of physical attractiveness, likability, and narcissism (see Table 4). The vulnerable narcissism factor manifested null results with all eight thin slice ratings. Conversely, the grandiose narcissism factor was significantly negatively correlated with Neuroticism and significantly positively correlated with Extraversion and ratings of narcissism. The correlations between the narcissism factors and Neuroticism and Extraversion were significantly different from one another, as were the correlations between the narcissism factors and stranger ratings of narcissism ( $t_s \geq 4.55, p \leq .001$ ).

#### *Vulnerable and Grandiose Narcissism and Psychopathology and Affect*

With regard to psychopathology symptoms (e.g., depression, anxiety), vulnerable narcissism manifested significant positive correlations with all 10 scales; these correlations were all significantly different from those manifested by the grandiose factor (with the exception of the correlations with hostility;  $t_s \geq 4.25, p \leq .001$ ), which manifested no significant correlations with these scales (see Table 5). The narcissism

**Table 5**  
Correlations Between Narcissism and Psychological Distress, Affect,  
and *DSM-IV* PDs

|                           | <i>M</i> | <i>SD</i> | $\alpha$ | Vulnerable         | Grandiose          |
|---------------------------|----------|-----------|----------|--------------------|--------------------|
| <i>Psychopathology</i>    |          |           |          |                    |                    |
| Somatization              | 9.65     | 3.76      | .81      | .29* <sup>a</sup>  | -.04 <sup>b</sup>  |
| Obsessive-compulsive      | 11.79    | 4.82      | .82      | .47* <sup>a</sup>  | -.06 <sup>b</sup>  |
| Interpersonal sensitivity | 6.54     | 3.49      | .86      | .61* <sup>a</sup>  | -.09 <sup>b</sup>  |
| Depression                | 9.11     | 4.13      | .87      | .55* <sup>a</sup>  | -.04 <sup>b</sup>  |
| Anxiety                   | 8.82     | 3.49      | .79      | .38* <sup>a</sup>  | .01 <sup>b</sup>   |
| Hostility                 | 7.08     | 2.82      | .81      | .37*               | .17                |
| Phobic anxiety            | 6.18     | 2.71      | .82      | .35* <sup>a</sup>  | -.07 <sup>b</sup>  |
| Paranoia                  | 7.23     | 3.43      | .81      | .54* <sup>a</sup>  | .15 <sup>b</sup>   |
| Psychoticism              | 7.09     | 3.04      | .72      | .54* <sup>a</sup>  | -.08 <sup>b</sup>  |
| Global distress           | 79.70    | 28.30     | .97      | .55* <sup>a</sup>  | -.01 <sup>b</sup>  |
| <i>Affect</i>             |          |           |          |                    |                    |
| Positive                  | 32.18    | 6.63      | .84      | -.25* <sup>a</sup> | .13 <sup>b</sup>   |
| Negative                  | 19.13    | 6.22      | .85      | .40* <sup>a</sup>  | .08 <sup>b</sup>   |
| <i>DSM-IV PDs</i>         |          |           |          |                    |                    |
| Paranoid                  | 1.81     | 2.04      | .82      | .53* <sup>a</sup>  | .29* <sup>b</sup>  |
| Schizoid                  | .84      | 1.04      | .55      | .07                | -.01               |
| Schizotypal               | 2.19     | 2.00      | .75      | .42* <sup>a</sup>  | .03 <sup>b</sup>   |
| Antisocial                | .61      | 1.29      | .89      | .06                | .24*               |
| Borderline                | 3.06     | 2.93      | .87      | .54* <sup>a</sup>  | .12 <sup>b</sup>   |
| Histrionic                | 2.89     | 1.81      | .57      | .24* <sup>a</sup>  | .53* <sup>b</sup>  |
| Narcissistic              | 4.57     | 3.14      | .82      | .43*               | .48*               |
| Avoidant                  | 2.16     | 1.92      | .71      | .54* <sup>a</sup>  | -.31* <sup>b</sup> |
| Dependent                 | 1.94     | 1.48      | .47      | .42* <sup>a</sup>  | -.12 <sup>b</sup>  |
| Obsessive-compulsive      | 3.99     | 1.84      | .44      | .38*               | .14                |

*Note.* Correlations within each row with different superscripts are significantly different at  $p \leq .001$  (test of dependent  $r$ s; Cohen & Cohen, 1983). PDs = personality disorders.  
\* $p \leq .001$ .

dimensions also manifested divergent relations with positive and negative affect such that vulnerable narcissism manifested a significant negative correlation with positive affect and a significant positive correlation with negative affect; these correlations were significantly different from those manifested by grandiose narcissism ( $t$ s  $\geq 4.25$ ,  $p \leq .001$ ), which manifested null correlations with both.

Finally, we examined the correlations between the narcissism factors and *DSM-IV* PDs. Vulnerable narcissism generated positive

correlations with 8 of 10 *DSM-IV* PDs, with a mean correlation of .37. Grandiose narcissism generated four significant positive correlations (and one significant negative correlation: avoidant PD) with the PDs, with a mean correlation of .15. Vulnerable narcissism manifested significantly larger correlations with paranoid, schizotypal, borderline, avoidant, and dependent PDs ( $t_s \geq 3.45, p \leq .001$ ), whereas grandiose narcissism manifested a significantly larger correlation with histrionic PD ( $t \geq 4.14, p \leq .001$ ). The two narcissism factors were equally strongly correlated with NPD symptoms, suggesting that *DSM-IV* NPD includes a blend of both narcissism dimensions.

## DISCUSSION

### *Variants of Narcissism and Their Nomological Nets*

The current data suggest that two relatively distinct forms of narcissism—grandiose and vulnerable—can be extracted from analyses using three prominent measures of trait narcissism: the NPI, PNI, and HSNS. Correlating the sets of correlations from Tables 3–5 (78 correlations for each narcissism factor) enabled an examination of the *total statistical similarity* of the nomological networks of the narcissism variants. Overall, the nomological networks for grandiose and vulnerable narcissism were unrelated ( $r = -.06, ns$ ).

### *Vulnerable and Grandiose Narcissism and Personality*

Grandiose and vulnerable narcissism manifested divergent personality profiles. In fact, the personality profile manifested by the vulnerable narcissism factor was negatively but nonsignificantly related to the personality profile manifested by the grandiose factor. Consistent with previous studies (Miller & Campbell, 2008; Miller et al., 2010), the two narcissism variants overlap primarily with regard to an antagonistic and entitled interpersonal orientation; they diverge substantially, however, in relation to Neuroticism and Extraversion (these differences are further manifested in significant differences in global self-esteem).

It is important to note that even the relations manifested by grandiose and vulnerable narcissism with Agreeableness were not identical. First, grandiose narcissism was significantly more strongly

negatively related to the overall Agreeableness domain score. Second, the individual facets covered by Agreeableness differed in their relation to the narcissism variants such that grandiose narcissism was more strongly associated with immodesty, noncompliance, (low) altruism, and dishonesty. Several of these traits are among the more reliable correlates of antisocial behavior (Miller, Lynam, & Leukefeld, 2003). We believe there are different pathways to the antagonistic interpersonal relations manifested by individuals with either of these narcissism variants. Vulnerable narcissism appears to be associated with a hostile attribution bias such that the intentions of others are viewed as being malevolent. These biases are related to aggressive behavior (e.g., Dodge, Price, Bachorowski, & Newman, 1990). Hostile attribution biases have also been linked with childhood events such as child abuse or maltreatment and harsh discipline (e.g., Dodge, Bates, & Pettit, 1990)—events that are related to vulnerable but not grandiose narcissism (Miller et al., 2010). In general, we believe that there are both different etiological *pathways* to disagreeableness as well as different *forms* of disagreeableness, and that grandiose and vulnerable narcissism differ on both. Individuals who are high on grandiose narcissism may be antagonistic for instrumental reasons (e.g., personal gain) related to status and dominance, whereas individuals high on vulnerable narcissism may behave in hostile and distrustful ways due to heightened affective dysregulation and negative interpersonal schemas that are linked with traumatic childhood experiences (e.g., Rogosch & Cicchetti, 2004).

We believe that these factors may also contribute to similar levels of entitlement, as both forms of narcissism were positively related to entitlement. Although individuals with either form of narcissism expect to receive special treatment, the rationale for these feelings of entitlement may be different. More specifically, individuals high on the grandiose narcissism dimension may believe they are entitled to special treatment because they are better than others (e.g., more attractive, more intelligent, more likable), whereas individuals high on the vulnerable narcissism dimension may believe they deserve special consideration because of their fragility.

### *Vulnerable and Grandiose Narcissism and Interpersonal Behavior*

*Attachment.* As expected, only vulnerable narcissism evinced a pathological attachment style, as demonstrated by significant

relations with both attachment avoidance and anxiety. The combination of high avoidance and attachment is indicative of a “fearful” attachment style in which individuals are thought to maintain negative views of the self and others. Fearful attachment styles have been linked with a number of problematic outcomes, including borderline PD (e.g., Minzenberg, Poole, & Vinogradov, 2006), aggression (e.g., Tweed & Dutton, 1998), drug dependence (Schindler et al., 2005), and other risky behaviors (Gwadz, Clatts, Leonard, & Goldsamt, 2004). Bartholomew and Horowitz (1991) found that fearful attachment styles are associated with less intimacy, disclosure, and ability to count on others for support, as well as the tendency to “assume a subservient role in close relationships” (p. 230). Etiologically, both attachment anxiety and avoidance are associated with histories of child sexual abuse, whereas only anxiety is related to emotional and physical abuse and neglect (Minzenberg et al., 2006). The current results mirror those found by Dickinson and Pincus (2003), who reported that the majority of individuals classified as vulnerable narcissists manifested a fearful attachment style.

Grandiose narcissism, on the other hand, manifested null to small negative relations with attachment anxiety and avoidance. These patterns suggest that grandiose narcissism is largely unrelated to attachment styles with a trend toward secure attachments (Dickinson & Pincus, 2003). The lack of attachment difficulties is consistent with the evidence suggesting that grandiose narcissism is unrelated to traumatic childhood events, poor parenting (psychological intrusiveness, lack of warmth: Miller, Dir, et al., 2010; parental drinking: Brennan, Shaver, & Tobey, 1991), low self-esteem, and emotional dysregulation (e.g., Bartholomew & Horowitz, 1991; Miller & Campbell, 2008)—constructs known to be related to insecure attachment styles. Consistent with the differences between these two forms of narcissism with regard to the interpersonally oriented traits such as Extraversion and Agreeableness, individuals with grandiose or vulnerable narcissism appear to maintain substantively different schemas about relations with others. Individuals who are higher on the vulnerable narcissism dimension fear the loss of intimate relationships and avoid developing close, intimate relationships that involve interdependence and emotional disclosure. Alternatively, individuals who are higher on the grandiose narcissism dimension are not fearful or suspicious of these relationships; this is likely due to the fact that these individuals are more likely to cause their romantic partners distress

than be the recipient of such distress (e.g., Miller, Campbell, & Pilkonis, 2007).

*Social cognition.* Mirroring the significant negative relations between both forms of narcissism and Agreeableness, both vulnerable and grandiose narcissism factors were related to reacting to various interpersonal situations with anger and aggression. There was a statistical trend (i.e.,  $p < .01$ ) such that grandiose narcissism manifested larger correlations with the likelihood of using verbal and physical aggression to resolve these situations. This increased willingness to behave in an overtly aggressive manner found in individuals higher on grandiose narcissism may be due to their higher levels of interpersonal dominance and assertiveness versus those who score higher on vulnerable narcissism.

*Negotiation.* We also examined the relations between the narcissism variants and decision making in response to a classic “tragedy of the commons” situation in which individuals had to decide how much to exploit a resource, knowing that too much exploitation would hurt themselves (and their competitors) whereas too little exploitation might result in a loss of profits for the individual. Only the grandiose dimension was positively related to a motivation to make a larger profit than one’s competitors and actually choosing to use a greater number of resources, although the correlations manifested by the two narcissism variants were not statistically significantly different. The differences between the two narcissism variants on this task were expected given the differences between these forms of narcissism with regard to behavioral approach motivation (e.g., Foster & Trimm, 2008), dominance, and a concern for others. Of the two forms of narcissism, only individuals higher on the grandiose dimension appear to approach the world with a zero-sum attitude and a willingness to win at any cost.

*Thin slices.* The current study is the first to examine how strangers view individuals who differ on these narcissism dimensions. Consistent with previous research using this thin slice methodology (Friedman, Oltmanns, Gleason, & Turkheimer, 2006; Oltmanns et al., 2004), grandiose narcissism was positively correlated with strangers’ ratings, based on 60-s video clips, of Extraversion and negatively correlated with ratings of Neuroticism. Vulnerable narcissism was unrelated to all stranger ratings.

Overall, it is clear that individuals with elevated scores on either grandiose or vulnerable narcissism have substantially different intra- and interpersonal styles, particularly with regard to the experience of negative and positive emotionality. These differences are rather robust as they have been confirmed via self- and informant-report, as well as by strangers who have had minimal “contact” with the individuals. Research suggests that the initial likability that is associated with grandiose narcissism may eventually turn to dislike over time (i.e., Paulhus, 1998). This change over time is consistent with research that has shown that individuals with symptoms of NPD are known to cause significant distress to those with whom they are involved (Miller, Campbell, & Pilkonis, 2007).

The initial likability of individuals high on grandiose narcissism may position these individuals to inflict more damage to those with whom they interact than individuals with traits consistent with vulnerable narcissism.

#### *Vulnerable and Grandiose Narcissism and Psychopathology/Affect*

Consistent with the differences in emotion-related personality traits such as Neuroticism and Extraversion, individuals high on vulnerable narcissism reported a wide array of psychological problems indicative of significant distress, such as depression, anxiety, hostility, paranoia, and interpersonal sensitivity. Similarly, these individuals reported experiencing little positive affect and a substantial degree of negative affect. Alternatively, individuals high on grandiose narcissism appeared largely resilient to these problems, as grandiose narcissism manifested no significant relations with indices of psychological distress or negative affect.

With regard to personality pathology, the grandiose narcissism factor manifested greater discriminant validity than did the vulnerable narcissism factor in that it evinced significant positive correlations primarily with the Cluster B PDs (i.e., antisocial, histrionic, narcissistic). Conversely, vulnerable narcissism evinced more limited specificity in that it was significantly positively related to 8 of the 10 PDs. Vulnerable narcissism is strongly correlated with Neuroticism/negative emotionality, which is a core component of many *DSM-IV* PDs (e.g., Saulsman & Page, 2004) and may be linked to a tendency to endorse symptoms of all forms of psychopathology, including somatic problems (e.g., Johnson, 2003). As expected, vulnerable

narcissism manifested substantial correlations with measures of borderline PD. Miller and colleagues (2010) suggested that the nomological networks of vulnerable narcissism and borderline PD are so highly overlapping that one could question whether they represent distinct constructs. It is noteworthy that the narcissism factors were equally strongly related to *DSM-IV* NPD. Although the *DSM-IV* NPD criteria emphasize grandiosity over vulnerability (Fossati et al., 2005; Miller, Hoffman, Campbell, & Pilkonis, 2008), it is clear that the *DSM-IV* text includes substantial descriptions of narcissistic vulnerability, which may be reflected in the questions used to assess NPD in self-report measures (e.g., Miller, Campbell, Pilkonis, & Morse, 2008).

#### *Assessing and Conceptualizing Narcissistic Vulnerability and Grandiosity*

Two pertinent questions arise from the current data revolving around the assessment and conceptualization of narcissistic vulnerability and grandiosity. We address the assessment issue first. The current data suggest that two of the putatively grandiose scales from the PNI (i.e., PNI Self-Serving Self-Enhancement and Grandiose Fantasies) load as or more strongly on the vulnerable factor than the grandiose factor. In fact, only the PNI Entitlement scale manifested a significant loading only on the grandiose factor. As noted earlier, this divergence is not entirely unexpected, as factor analytic findings reported by the authors of the PNI (see Wright, Lukowitsky, Pincus, & Conroy, 2010) demonstrated that the PNI Entitlement scale manifested a quite small loading on the PNI grandiose factor (i.e., .36) compared to those manifested by PNI Self-Serving Self-Enhancement (i.e., .82) and Grandiose Fantasies (i.e., .78). As such, it is not surprising that PNI Entitlement loaded with other narcissism factors when a broader array of narcissism scales were included. To further explore why these two PNI scales loaded as or more strongly on the vulnerable factor, we examined their relations with the domains of the FFM. These correlations provide some clues for understanding this divergence in that neither of these PNI scales manifested correlations with FFM domains thought to be indicative of grandiosity (i.e., low Agreeableness, high Extraversion). In fact, their profiles of correlations appeared to be a blend of both narcissism factors (e.g., high Neuroticism indicative of vulnerability, small elevations in Extraversion indicative of grandiosity), albeit with an emphasis on vulnerability.

A second assessment issue relates to whether grandiose narcissism, as measured by the NPI, assesses a construct indicative of pathology (e.g., Cain et al., 2008; Pincus & Lukowitsky, 2010). The current narcissism factor, made up of the NPI scales and PNI Entitlement, manifested a number of correlates that are indicative of potential problems, including strong correlations with trait antagonism (e.g., manipulateness, noncompliance, immodesty), symptoms of histrionic and narcissistic PDs, aggressive social cognition, and risky and exploitative decision making. These results, along with others that demonstrate a link between grandiose narcissism and externalizing behaviors (e.g., Miller et al., 2010) suggest that grandiose narcissism, as measured by the NPI, is not simply a marker of psychological health. We believe that it is vital that clinicians and researchers not equate the lack of internalizing symptoms found with grandiose narcissism with good psychological health (in much the same way one would not make this assumption when conceptualizing the construct of psychopathy).

Finally, the current results raise questions about the nature of vulnerable and grandiose narcissism. That is, should these narcissism factors be viewed as largely distinct “types” or dimensions (that is, one may be grandiosely or vulnerably narcissistic but not usually both), or should they be viewed as alternative phenotypic representations of the same underlying core of narcissism? The latter view is consistent with the assumption that most narcissistic individuals will vacillate between these two “narcissistic states” depending on a variety of factors, including environmental/interpersonal triggers. Pincus and Lukowitsky (2010) reviewed writings by a number of prominent narcissism theorists and suggest that narcissistic individuals may fluctuate between states of grandiosity and vulnerability. Ultimately, there is no clear answer to this vital question. Future research is needed that uses a longitudinal design, perhaps using a method such as ecological momentary assessment, which may be able to address this question.

### Limitations

The current study assessed variants of narcissism in relatively large samples of undergraduates. It will be important that future work examine the generalizability of these findings using more diverse samples that may be more likely to have higher rates of one or both of these narcissism dimensions and psychopathology (e.g., commu-

nity and clinical samples). In addition, it will be interesting to expand the nomological networks examined to include differences in other important domains of functioning such as work and romance, particularly via the use of informant reports. One might expect that romantic partners, coworkers, bosses, and psychotherapists might describe individuals high on grandiose or vulnerable narcissism in different terms. Ecological momentary assessment strategies may provide fascinating insights into the relations between environmental events that occur for individuals high on grandiose or vulnerable narcissism and subsequent changes in mood and behavior. In general, this line of work will be moved forward by an inclusion of research methodologies that are less reliant on accurate self-reports. Finally, it is important to note that the differences in the correlations between grandiose and vulnerable narcissism and the “thin slice” ratings of narcissism could be due to the definition of narcissism provided to the raters, which emphasized grandiosity. Future studies might examine this relation by asking judges to provide ratings of narcissism without providing any explicit guidance as to how to conceptualize narcissism; this type of rating would provide a more accurate glimpse into how independent raters conceive of the construct of narcissism.

## CONCLUSIONS

The current results add to an expanding literature documenting substantial differences in the nomological networks of grandiose and vulnerable narcissism. With the exception of a shared tendency toward entitled and aggressive interpersonal behavior and schemas, the two forms of narcissism share little else with regard to basic personality traits, interpersonal behavior, and psychopathology. Importantly, these individuals are viewed by others in divergent ways, even after very minimal contact, such that individuals high on grandiose narcissism are viewed as being more extraverted and less neurotic. The tendency to see individuals high on grandiose narcissism in a positive light, at least initially, may place these individuals in a position to do maximal damage to romantic partners, friends, family members, and coworkers. We believe it is vital that researchers and clinicians become more aware of the differences between these forms of narcissism so as to end the frequent commingling of these constructs.

## REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: American Psychiatric Association.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, **61**, 226–244.
- Brennan, K. A., Shaver, P. R., & Tobey, A. E. (1991). Attachment styles, gender, and parental drinking. *Journal of Social and Personal Relationships*, **8**, 451–466.
- Cain, N. M., Pincus, A. L., & Ansell, E. B. (2008). Narcissism at the crossroads: Phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review*, **28**, 638–656.
- Campbell, W. K., Bonacci, A. M., Shelton, J., Exline, J. J., & Bushman, B. J. (2004). Psychological entitlement: Interpersonal consequences and validation of a self-report measure. *Journal of Personality Assessment*, **83**, 29–45.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral science* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Corry, N., Merritt, R. D., Mrug, S., & Pamp, B. (2008). The factor structure of the Narcissistic Personality Inventory. *Journal of Personality Assessment*, **90**, 593–560.
- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Lutz, FL: PAR.
- Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, **13**, 595–605.
- Dickinson, K. A., & Pincus, A. L. (2003). Interpersonal analysis of grandiose and vulnerable narcissism. *Journal of Personality Disorders*, **17**, 188–207.
- Dodge, K. A., Bates, J. E., & Pettit, B. S. (1990). Mechanisms in the cycle of violence. *Science*, **250**, 1678–1683.
- Dodge, K. A., Price, J. M., Bachorowski, J., & Newman, J. P. (1990). Hostile attributional biases in severely aggressive adolescents. *Journal of Abnormal Psychology*, **99**, 385–392.
- Fairchild, A. J., & Finney, S. J. (2006). Investigating validity evidence for the Experiences in Close Relationships-Revised questionnaire. *Educational and Psychological Measurement*, **66**, 116–135.
- First, M. B., Gibbon, M., Spitzer, R. L., Williams, J. B. W., & Benjamin, L. S. (1997). *Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II)*. Washington, DC: American Psychiatric Press.
- Fossati, A., Beauchaine, T. P., Grazioli, F., Carretta, I., Cortinovis, F., & Maffei, C. (2005). A latent structure analysis of Diagnostic and Statistical Manual of Mental Disorders, narcissistic personality disorder criteria. *Comprehensive Psychiatry*, **46**, 361–367.
- Foster, J. D., & Trimm, R. F. IV. (2008). On being eager and uninhibited: Narcissism and approach-avoidance motivation. *Personality and Social Psychology Bulletin*, **34**, 1004–1017.

- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, **78**, 350–365.
- Friedman, J. N. W., Oltmanns, T. F., Gleason, M. E. J., & Turkheimer, E. (2006). Mixed impressions: Reactions of strangers to people with pathological personality traits. *Journal of Research in Personality*, **40**, 395–410.
- Gwadz, M. V., Clatts, M. C., Leonard, N. R., & Goldsamt, L. (2004). Attachment style, childhood adversity, and behavioral risk among young men who have sex with men. *Journal of Adolescent Health*, **34**, 402–413.
- Hendin, H. M., & Cheek, J. M. (1997). Assessing hypersensitive narcissism: A reexamination of Murray's Narcissism Scale. *Journal of Research in Personality*, **31**, 588–599.
- Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, **30**, 179–185.
- Johnson, M. (2003). The vulnerability status of neuroticism: Over-reporting or genuine complaints. *Personality and Individual Differences*, **35**, 877–887.
- Kubarych, T. S., Deary, I. J., & Austin, E. (2004). The Narcissistic Personality Inventory: Factor structure in a non-clinical sample. *Personality and Individual Differences*, **36**, 857–872.
- Lynam, D. R., & Widiger, T. A. (2001). Using the five-factor model to represent the DSM-IV personality disorders: An expert consensus approach. *Journal of Abnormal Psychology*, **110**, 401–412.
- Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality*, **76**, 449–476.
- Miller, J. D., Campbell, W. K., & Pilkonis, P. (2007). Narcissistic personality disorder: Relations with distress and functional impairment. *Comprehensive Psychiatry*, **48**, 170–177.
- Miller, J. D., Campbell, W. K., Pilkonis, P. A., & Morse, J. Q. (2008). Assessment procedures for narcissistic personality disorder: A comparison of the Personality Diagnostic Questionnaire-4 and best estimate clinical judgments. *Assessment*, **15**, 483–492.
- Miller, J. D., Dir, A., Gentile, B., Wilson, L., Pryor, L. R., & Campbell, W. K. (2010). Searching for a vulnerable dark triad: Comparing factor 2 psychopathy, vulnerable narcissism, and borderline personality disorder. *Journal of Personality*, **78**, 1529–1564.
- Miller, J. D., Hoffman, B., Campbell, W. K., & Pilkonis, P. A. (2008). An examination of the factor structure of DSM-IV narcissistic personality disorder criteria: One or two factors? *Comprehensive Psychiatry*, **49**, 141–145.
- Miller, J. D., Lynam, D. R., & Leukefeld, C. (2003). Examining antisocial behavior through the use of the five factor model facets. *Aggressive Behavior*, **29**, 497–514.
- Miller, J. D., Widiger, T. A., & Campbell, W. K. (2010). Narcissistic personality disorder and the DSM-5. *Journal of Abnormal Psychology*, **119**, 640–649.
- Minzenberg, M. J., Poole, J. H., & Vinogradov, S. (2006). Adult social attachment disturbance is related to childhood maltreatment and current symptoms in

- borderline personality disorder. *Journal of Nervous and Mental Disease*, **194**, 341–348.
- Oltmanns, T. F., Friedman, J. N. W., Fiedler, E. R., & Turkheimer, E. (2004). Perceptions of people with personality disorders based on thin slices of behaviors. *Journal of Research in Personality*, **38**, 216–229.
- Otway, L., & Vignoles, V. (2006). Narcissism and childhood recollections: A quantitative test of psychoanalytic predictions. *Personality and Social Psychology Bulletin*, **32**, 104–116.
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, **74**, 1197–1208.
- Paulhus, D. L. (2001). Normal narcissism: Two minimalist accounts. *Psychological Inquiry*, **12**, 228–229.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism and psychopathy. *Journal of Research in Personality*, **36**, 556–563.
- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A., & Levy, K. N. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment*, **21**, 365–379.
- Pincus, A. L., & Lukowitsky, M. R. (2010). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology*, **6**, 421–446.
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, **54**, 890–902.
- Rogosch, F. A., & Cicchetti, D. (2004). Child maltreatment and emergent personality organization: Perspectives from the five-factor model. *Journal of Abnormal Child Psychology*, **32**, 123–145.
- Ronningstam, E. (2009). Narcissistic personality disorder: Facing DSM-V. *Psychiatric Annals*, **39**, 111–121.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Russ, E., Shedler, J., Bradley, R., & Westen, D. (2008). Refining the construct of narcissistic personality disorder: Diagnostic criteria and subtypes. *American Journal of Psychiatry*, **165**, 1473–1481.
- Samuel, D. B., & Widiger, T. A. (2008). Convergence of narcissism measures from the perspective of general personality functioning. *Assessment*, **15**, 364–374.
- Saulsman, L. M., & Page, A. C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. *Clinical Psychology Review*, **23**, 1055–1085.
- Schindler, A., Thomasius, R., Sack, P.-M., Gemeinhardt, B., Kustner, U., & Eckert, J. (2005). Attachment and substance use disorders: A review of the literature and a study in drug dependent adolescents. *Attachment and Human Development*, **7**, 207–228.
- Sedikides, C., Rudich, E. A., Gregg, A. P., Kumashiro, M., & Rusbult, C. (2004). Are normal narcissists psychologically healthy? Self-esteem matters. *Journal of Personality and Social Psychology*, **87**, 400–416.

- Sheldon, K. M., & McGregor, H. A. (2000). Extrinsic value orientation and “the tragedy of the commons. *Journal of Personality*, **68**, 383–411.
- Tremblay, P. F., & Belchevski, M. (2004). Did the instigator intend to provoke? A key moderator in the relation between trait aggression and aggressive behavior. *Aggressive Behavior*, **30**, 409–424.
- Tweed, R. G., & Dutton, D. G. (1998). A comparison of impulsive and instrumental subgroups of batterers. *Violence and Victims*, **13**, 217–230.
- Velicer, W. F. (1976). Determining the number of components from the matrix of partial correlations. *Psychometrika*, **41**, 321–327.
- Watson, D., & Clark, L. A. (1994). *The PANAS-X: Manual for the Positive and Negative Affect Schedule-Expanded Form*. Unpublished manuscript, University of Iowa.
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology*, **61**, 590–597.
- Wright, A. G., Lukowitsky, M. R., Pincus, A. L., & Conroy, D. E. (2010). The higher-order factor structure and gender invariance of the Pathological Narcissism Inventory. *Assessment*, **7**, 467–483.