

Vulnerable Narcissism Is (Mostly) a Disorder of Neuroticism

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Abstract

Objective: Increasing attention has been paid to the distinction between the dimensions of narcissistic grandiosity and vulnerability. We examine the degree to which basic traits underlie vulnerable narcissism, with a particular emphasis on the importance of Neuroticism and Agreeableness.

Method: Across four samples (undergraduate, online community, clinical-community), we conduct dominance analyses to partition the variance predicted in vulnerable narcissism by the Five-Factor Model personality domains, as well as compare the empirical profiles generated by vulnerable narcissism and Neuroticism.

Results: These analyses demonstrate that the lion's share of variance is explained by Neuroticism (65%) and Agreeableness (19%). Similarity analyses were also conducted in which the extent to which vulnerable narcissism and Neuroticism share similar empirical networks was tested using an array of criteria, including self-, informant, and thin slice ratings of personality; interview-based ratings of personality disorder and pathological traits; and self-ratings of adverse events and functional outcomes. The empirical correlates of vulnerable narcissism and Neuroticism were nearly identical ($M_{rICC} = .94$). Partial analyses demonstrated that the variance in vulnerable narcissism not shared with Neuroticism is largely specific to disagreeableness-related traits such as distrustfulness and grandiosity.

Conclusions: These findings demonstrate the parsimony of using basic personality to study personality pathology and have implications for how vulnerable narcissism might be approached clinically.

Keywords: Agreeableness, Five-Factor Model, personality disorder, dominance analyses

Historically, many psychological theorists have argued for variable presentations of narcissism, some of which emphasize grandiosity and others of which emphasize fragility and negative affectivity (see Cain, Pincus, & Ansell, 2008, for a review). Although this delineation was shown in a compelling empirical study 25 years ago (Wink, 1991), research aimed at parsing this heterogeneity took off in the 2000s with the publications of studies demonstrating their divergent empirical profiles (e.g., Dickinson & Pincus, 2003; Miller & Campbell, 2008; Miller et al., 2010, 2011; Russ, Shedler, Bradley, & Westen, 2008). Similarly, multiple measures have been developed to allow for the assessment of grandiose narcissism alone (e.g., Narcissistic Admiration and Rivalry Questionnaire [NARQ], Back et al., 2013; Narcissistic Personality Inventory [NPI], Raskin & Terry, 1988; Narcissistic Grandiosity Scale [NGS], Rosenthal, Hooley, & Steshenko, 2007), vulnerable narcissism alone (Hypersensitive Narcissism Scale [HSNS], Hendin & Cheek, 1997), and both dimensions simultaneously (e.g., Five-Factor Narcissism Inventory [FFNI], Glover, Miller, Lynam, Crego, & Widiger, 2012; Pathological Narcissism Inventory [PNI], Pincus et al.,

2009), which has helped fuel the advance of narcissism research aimed at delineating the empirical profiles associated with various narcissism dimensions.

Much of this research has demonstrated that these two dimensions—grandiose and vulnerable narcissism—manifest only modest interrelations and largely unrelated empirical correlates. From a basic personality trait perspective, disordered personalities are conceptualized as collections of more basic, elemental traits; this perspective is now embedded in Section III of the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association [APA], 2013). From this perspective, grandiose narcissism is best understood as being underlain by low Agreeableness and high Extraversion (O'Boyle, Forsyth, Banks, Story, & White, 2015; Paulhus, 2001), whereas vulnerable narcissism is primarily underlain by high Neuroticism and low Agreeableness

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(Campbell & Miller, 2013). Miller and colleagues (Miller, Lynam, Hyatt, & Campbell, in press) put forth a three-factor, unified model of narcissism in which they suggest that disagreeableness/antagonism represents the core, shared component found in all presentations of narcissism, whereas grandiose narcissism, vulnerable narcissism, and narcissistic personality disorder (NPD) can be differentiated by their relative emphases on Neuroticism and agentic Extraversion. Psychologically, vulnerable narcissism is characterized by greater internalizing symptoms and psychological distress, whereas grandiose narcissism is more strongly associated with externalizing behaviors, especially anger and aggression following perceived slights or ego threats (Bushman & Baumeister, 1998; Vize et al., in press), although the latter can be found in vulnerable narcissism as well (Okada, 2010). Although the data are limited to date, initial evidence suggests that the two dimensions manifest different patterns of treatment utilization as well (Pincus et al., 2009), which one would expect given the substantial differences in psychological distress experienced by vulnerably narcissistic individuals (Miller et al., 2010, 2011).

Despite a growing interest in vulnerable narcissism, less is known about this construct given it was putatively de-emphasized in NPD, as articulated in various editions of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*; APA, 1980, 1994, 2013), and has only been easily studied since the development of validated assessment measures. Based on the current state of the research, we believe vulnerable narcissism is composed mostly of stable, trait negative emotionality, with the addition of interpersonal antagonism or low communalty. The latter disagreeableness associated with vulnerable narcissism is seen most saliently with regard to a distrust of others due in part to a hostile attribution bias and a self-centered, entitled, and envious interpersonal approach (e.g., Campbell & Miller, 2013; Krizan & Johar, 2012; Miller et al., 2011; Thomas, Wright, Lukowitsky, Donnellan, & Hopwood, 2012). Vulnerably narcissistic individuals retrospectively report experiencing a number of adverse events in childhood, including parental abuse and maltreatment, which likely contributes to the attachment difficulties they report, as well as their general anxiety and suspiciousness of others with whom they interact. Understanding vulnerable narcissism through the lens of basic personality traits is consistent with a growing body of literature that demonstrates that such traits serve as organizing factors for important latent factors of psychopathology, such that disinhibition and antagonism underlie the externalizing disorders (e.g., Eisenberg et al., 2009; Krueger et al., 2002; Krueger, McGue, & Iacono, 2001; Pryor, Miller, Hoffman, & Harding, 2009) and neuroticism and introversion underlie many of the internalizing disorders. Personality correlates of psychopathology, even disorders not explicitly tied to personality pathology (i.e., Axis I), demonstrate robust associations with personality (Kotov, Gamez, Schmidt, & Watson, 2010). Not surprisingly, this is even truer for personality disorders, such that basic traits do an excellent job of organizing these disorders into a smaller number of latent factors that resemble the Five-Factor Model (FFM; e.g., O'Connor, 2005; see Krueger & Markon, 2014, and Widiger & Simonsen, 2005, for reviews).

In the current study, we tested the extent to which vulnerable narcissism is characterized by elevated scores on Neuroticism (primarily) and antagonism (secondarily) using different statistical techniques, namely, dominance and similarity analyses. Dominance analysis is a method for determining relative predictor importance when there is multicollinearity among a set of predictors (Azen & Budescu, 2003; Budescu, 1993); it fully partitions the total variance explained and allows for a straightforward examination of predictor importance by producing estimates of importance (i.e., dominance weights) after an iterative process of comparing predictors to one another across different regression models. Specifically, dominance analyses were conducted to compare the relative importance of the basic domains of personality found in the FFM with regard to their ability to account for variance in the vulnerable narcissism composite. We were most interested in overall predictor importance, although dominance analysis allows for one to examine different patterns of dominance (e.g., conditional and complete dominance; Azen & Budescu, 2003). As such, we only examined general dominance, which provides information regarding the variance a predictor accounts for in an outcome when it is by itself (the squared zero-order correlation), and when in combination with other predictors in a set (the squared semipartial correlation when the number of predictors is greater than 1). All dominance analyses were conducted using the 'yhat' package (Nimon & Oswald, 2013) in R (Version 0.99.896; R Core Team, 2016).

In addition to dominance analyses, we compared the empirical correlates of vulnerable narcissism and Neuroticism across an array of correlates measured via self-reports, behavioral tasks, thin slice ratings, informant ratings, and interview-based diagnoses/ratings in three types of samples (undergraduates, online community, clinical). We used three approaches for these comparisons. First, we compared the absolute similarity using a double-entry *q*-correlation, which measures similarity not just in terms of patterns of correlations, but also takes into account the size of correlations (McCrae, 2008). Second, we tested whether the correlations manifested by vulnerable narcissism and Neuroticism differ significantly using tests of *dependent rs*. Third, we examined what was left in vulnerable narcissism after the variance it shares with Neuroticism was removed. To do this, vulnerable narcissism scores were regressed on Neuroticism scores, and the residuals were saved and then correlated with the same criteria used in the four samples.

In general, we expected to find that (a) Neuroticism would account for the majority of variance in vulnerable narcissism, (b) a high degree of overlap between the correlates manifested by Neuroticism and vulnerable narcissism and (c) the primary unique component of vulnerable narcissism would be a hostile and suspicious interpersonal approach.

METHOD

Sample 1: Participants and Procedure

Participants were 238 undergraduate males and females recruited from the research participant pool from a large, public

university (60% women; $M_{\text{age}} = 19.13$, $SD = 1.26$; 83% Caucasian). Participants received research credit in exchange for their participation. Upon signing informed consent, participants completed a packet of questionnaires 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. Data from this sample have previously been published in Miller et al. (2011).¹

Sample 2: Participants and Procedure

Participants were 347 students (220 women and 125 men; 2 unknown); 276 participants were White, 35 were Asian, 30 were Black, and 9 were of Hispanic ethnicity.

Mean age was 19.3 ($SD = 2.2$). Participants were undergraduates recruited from a research participant pool at a large, public southeastern university who received research credit for their participation. After providing informed consent, participants completed questionnaires and provided email addresses for peers. An email was sent to a peer identified by the participant as someone who knew the participant well to see whether he or she was willing to serve as an informant in this study. Interested peers provided informed consent and completed informant versions of the NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992). Institutional Review Board approval was obtained for all aspects of this study. We compared the participants for whom we received informant reports ($n = 166$ for FFM domains) with those for whom we did not with regard to demographic variables to determine whether the groups were different in any meaningful way; no significant differences between the groups were observed. Data from this sample have previously been published in Miller, Maples-Keller, and Lynam (2016).

Sample 3: Participants and Procedure

Participants were 865 adults recruited from Amazon's Mechanical Turk (MTurk) website. To participate, participants had to be 18 years of age or older and reside in the United States. Participants were paid \$2.00 for their participation. Of the 865 participants who completed informed consent, 262 participants were removed for failing one or both of the validity scales (see Measures section), for finishing the study in a time deemed invalid (≤ 20 minutes), for having more than 25% missing data, or for random responding. The final sample consisted of 603 participants (63% female; 83% White, 10% Black, 8% Asian, 6% Hispanic; $M_{\text{age}} = 37.04$, $SD = 11.75$).² Data from this sample have previously been published in Miller et al. (in press).

Sample 4: Participants and Procedure

Participants included 110 community adults who were currently receiving psychological or psychiatric treatment. To participate, individuals had to be currently receiving psychiatric/psychological care, be between the ages of 18 and 65, have a minimum of an 8th grade education, and use a computer 3 or more days a week (to ensure that they were sufficiently familiar so as to complete portions of the study that involved answering questions on the computer). Individuals were not eligible to participate if they were currently experiencing psychotic symptoms. Individuals were administered a semistructured interview for *DSM-IV* personality disorder symptoms and completed a number of self-report measures. Of the original 110 participants, 98 (72 females; $M_{\text{age}} = 36.6$, $SD = 12.7$; 91% White, 6% Black) completed the series of narcissism-related measures described below. Individuals were compensated \$40. Institutional Review Board approval was obtained for all aspects of the study. Data from this sample have been previously reported in Few et al. (2013), Miller et al. (2013), and Miller, McCain, et al. (2014).

Table 1 provides information on the reliabilities of the measures used in the present study, as well as indicating in which samples each measure was included. Thus, this information is not provided in the descriptions below.

Narcissism Measures

Hypersensitive Narcissism Scale (HSNS). The HSNS (Hendin & Cheek, 1997) is a 10-item self-report measure that reflects hypersensitivity, vulnerability, and entitlement.

Five-Factor Narcissism Inventory (FFNI). The FFNI (148 items; Glover et al., 2012) and its abbreviated short form (FFNI-SF; 60 items; Sherman et al., 2015) are self-report measures of narcissism that assess 15 traits related to vulnerable and grandiose narcissism that can be used to score rationally created grandiose and vulnerable narcissism dimensions, as well as three empirically derived higher-order factors (Miller, Lynam, et al., 2016). The FFNI-SF was used in Sample 3, whereas the FFNI was used in Sample 4. In both cases, only the vulnerable narcissism dimension was used. The following facets are used to score the vulnerable narcissism dimension: reactive anger, need for admiration, shame, and distrust.

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. We used the higher-order vulnerable dimension as part of the vulnerable narcissism composite in all three samples.

Revised NEO Personality Inventory (NEO-PI-R). The NEO-PI-R (Costa & McCrae, 1992) is a 240-item self-report measure of the FFM that yields scores for the five domains as well as 30 more specific facets. The NEO-PI-R was used in

Table 1 Measures Administered in Each of Four Samples With Reliabilities

Measure	Sample 1	Sample 2	Sample 3	Sample 4
HSNS	.71		.77	.78
FFNI (V)		.85*	.93	
PNI (V)	.95	.94	.92	
FFM (self): Domains	.89–.91**	.71–.86 [†]	.82–.94 ^{††}	.95 [‡]
Facets	.56–.85		.65–.93	
FFM (informant)		.70–.89 [†]		
AUDIT				.80
BSI	.72–.91			
CATS		.64 (Phy) .76 (Verbal) .82 (Sex) .83 (Emotion) .89 (Total)		
CAB		Drug Variety ASB Variety	Drug Variety ASB Variety	Drug Variety ASB Variety
LPFS (DSM-5 Crit. A)				0.49 (Identity) ^{‡‡} 0.47 (Self-dir) 0.49 (Empathy) 0.47 (Intimacy) .76–.89
CPTRF (DSM-5 Crit. B: Domains)				
ECR-R: Avoidance	.93	.93		
Anxiety	.93	.94		
PWMS: Warmth		.83		
Monitoring		.78		
PROMIS: Anxiety			.96	
Depression			.95	
PANAS-X: Positive	.84			
Negative	.85			
PCS Intrusiveness		.85		
PES	.86			
RPAQ: Reactive		.82	.84	
Proactive		.82	.94	
Resource dilemma		Acquisitive Apprehensive Harvest bids		
RSES		.89	.91	
Vignettes: Exper, Anger	.87			
Express anger	.87			
Rudeness	.88			
Yelling	.88			
Physical	.87			
Total	.92			
SCID-II				.79–.92 ^{‡‡}
SCID-II/PQ	.44–.89			
Thin slices of N, E, O, A, C, physical attractiveness, likability, narcissism	.77–.92 ^{‡‡}			

Note. HSNS = Hypersensitive Narcissism Scale; FFNI = Five-Factor Narcissism Inventory; PNI = Pathological Narcissism Inventory; FFM = Five-Factor Model and was assessed using the Revised NEO Personality Inventory (NEO-PI-R), the IPIP NEO, of the Five-Factor Inventory (FFI); AUDIT = Alcohol Use Disorders Identification Test; BSI = Brief Symptom Inventory; CATS = Child Abuse and Trauma Scale; CAB = Crime and Analogous Behavior Scale; LPFS = Levels of Personality Functioning Scale; CPTRF = Clinicians' Personality Trait Rating Form; ECR-R = Experiences in Close Relationships-Revised; PWMS = Parental Warmth and Monitoring Scale; PROMIS = Patient-Reported Outcomes Measurement Information System; PANAS-X = Positive and Negative Affect Schedule-Expanded Form; PCS = Psychological Control Scale; PES = Psychological Entitlement Scale; RPAQ: Reactive-Proactive Aggression Questionnaire; RSES = Rosenberg Self-Esteem Scale; SCID-II = Structured Clinical Interview for DSM-IV Axis II Personality Disorders; SCID-II/PQ = Structured Clinical Interview for DSM-IV Personality Disorders–Personality Questionnaire; N = Neuroticism; E = Extraversion; O = Openness; A = Agreeableness; C = Conscientiousness.

*FFNI-Short Form version was used in Sample 2. **The NEO-PI-R was used here. [†]The FFI was used here, which only provides scores for the domains. ^{††}The IPIP NEO was used here. [‡]Only the Neuroticism domain was used. ^{‡‡}These are inter-rater reliabilities.

Samples 1 and 4 (but only the Neuroticism domain is used in Sample 4). In Sample 2, the abbreviated NEO Five-Factor Inventory (Costa & McCrae, 1992) was used for the self- and

peer reports. This measure uses 60 items to assess the five domains only. In Sample 3, an alternative 120-item measure of the FFM was used that also yields five domain and 30 facet

scores, the IPIP-NEO 120 (Maples, Guan, Carter, & Miller, 2014).

Criterion Measures

Alcohol Use Disorders Identification Test (AUDIT). The AUDIT (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993) is a 10-item self-report measure of problematic alcohol consumption.

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

Child Abuse and Trauma Scale (CATS). The CATS (Saunders & Giolas, 1991) is a 38-item self-report measure of physical, verbal, emotional, and sexual abuse. In Sample 2, we used revised scales on the basis of analyses presented by Poythress et al. (2006).

Four items were used to assess physical abuse, three items were used for verbal abuse, three items were used for sexual abuse, and four items were used for emotional abuse. All 14 items were also used to create a total scale. The physical, sexual, and total abuse variables were log-transformed in order to reduce problems with non-normality in this sample.

Crime and Analogous Behavior Scale (CAB). The CAB scale (Miller & Lynam, 2003) is a self-report measure of various externalizing behaviors. A lifetime drug use count was created by giving participants a 1 for every drug endorsed (eight items; e.g., cocaine). A lifetime antisocial behavior count was created by giving participants a 1 for every relevant act endorsed (10 items; e.g., stealing). The antisocial variables were log-transformed in order to reduce problems with non-normality.

DSM-5 Criterion A Measure. The Levels of Personality Functioning Scale (LPF; APA, 2011) is used to characterize severity of personality impairment on four dimensions (*Self*: Identity [$M = 1.68$, $SD = 1.0$], Self-direction [$M = 1.52$, $SD = .95$]; *Interpersonal*: Empathy [$M = 1.28$, $SD = 1.04$], Intimacy [$M = 1.79$, $SD = 1.09$]), each of which is rated on a scale of 0 (*healthy functioning*) to 4 (*extreme impairment*). Ratings on these four dimensions were completed by the interviewer following administration of the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First, Gibbon, Spitzer, Williams, & Benjamin, 1997) SCID-II. Rater training consisted of watching a videotaped SCID-II interview, rating the four dimensions independently, and discussion of each rating and examination of discrepancies. All analyses with the LPF were conducted using the interviewer's ratings.

DSM-5 Criterion B Measure. The DSM-5 Clinicians' Personality Trait Rating Form (DSM-5 Clinicians' PTRF; APA,

2011) uses a single item to assess each of the 25 proposed traits subsumed by five trait domains: Negative Affectivity, Detachment, Antagonism, Disinhibition, and Psychoticism. Raters provided a 0 (*very little or not at all descriptive*) to 3 (*extremely descriptive*) rating based on their perceived presence of a given trait. Facet ratings for each domain are summed to provide a domain score (e.g., Psychoticism = Unusual Beliefs and Experiences + Eccentricity + Cognitive and Perceptual Dysregulation). Rater training consisted of watching a videotaped SCID-II interview, rating the 25 traits independently, and discussing each trait rating and discrepancies. All analyses were conducted using the interviewer's ratings.

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 (19 items).

Parenting Warmth and Monitoring Scale. This 24-item self-report scale (Lamborn, Mounts, Steinberg, & Dornbusch, 1991) measures the degree of warmth and parental supervision given to children. Questions pertaining to parental monitoring were asked for the time frame of 12th grade.

Patient-Reported Outcomes Measurement Information System (PROMIS). The PROMIS (Pilkonis, Choi, Reise, Stover, Riley, & Cella, 2011) ANX and DEP are brief self-report questionnaires designed to assess anxiety and depression over the past 7 days.

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

Psychological Control Scale (PCS). The PCS (Barber, 1996) is a 16-item self-report measure of the level of psychological control or intrusiveness asserted by one's parents. Participants were asked about their parents' behavior in this domain when they were a senior in high school.

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.

Reactive-Proactive Aggression Questionnaire (RPAQ). The RPAQ (Raine et al., 2006) is a 23-item measure of reactive and proactive aggression.

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 0–10 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 the following: “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” (2000, p. 393). Acquisitiveness and apprehensiveness were each measured with one question. The harvest bids variable was measured with five questions (one bid per year).

Rosenberg Self-Esteem Scale (RSES). The RSES (Rosenberg, 1965) is a 10-item global measure of self-esteem.

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, (c) being rude, (d) yelling or swearing, (e) threatening the other person, and (f) using physical force. The answers for each of these six variables were summed across the 12 vignettes.

Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II). The SCID-II (First et al., 1997) is a semistructured interview that assesses the 10 *DSM-IV* personality disorders (PDs). Each PD criterion is scored using a 0 (*absent*), 1 (*subclinical*), or 2 (*present*) rating. Administration training consisted of reading and discussing the SCID-II manual, watching a videotaped SCID-II interview, rating the videotaped participant independently, and discussing each symptom rating and any discrepancies. Intraclass correlations were computed using the interviewer ratings and observer ratings generated via videotaped interview ($n = 103$; six interviews could not be coded by an observer due to technical difficulties with the video equipment and, therefore, were not included in these analyses) to assess the inter-rater reliability of the SCID-II ratings.

Structured Clinical Interview for DSM-IV Personality Disorders–Personality Questionnaire (SCID-II/PQ). The

SCID-II/PQ (First et al., 1997) is a 119-item self-report questionnaire used to assess the *DSM-IV* PDs.

Thin Slices. Following the protocol described by Oltmanns, Friedman, Fiedler, and Turkheimer (2004), each participant was individually videotaped while answering the following question for 60 seconds: “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 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. Inter-rater reliability was calculated using intraclass correlations. Composites were created for subsequent analyses by taking the mean of all available ratings.

RESULTS

Creation of Vulnerable Narcissism Composites

In Sample 1, vulnerable narcissism was scored as a composite of z -scores of the PNI Vulnerable scale and the HSNS ($r = .62$). In Sample 2, vulnerable narcissism was measured with the vulnerable dimension of the PNI. In Samples 3 and 4, the vulnerable narcissism composites were scored as composites of z -scores of the PNI Vulnerable dimension, the HSNS, and the FFNI Vulnerable dimension (Sample 3: range of $r_s = .77$ to $.83$; Sample 4: range of $r_s = .70$ to $.82$).

Relative Importance of FFM Domains in Vulnerable Narcissism: Dominance Analyses

The results of the general dominance analyses are displayed in Table 2. Across all samples, Neuroticism accounted for the greatest amount of variance in the vulnerable narcissism scores (range = 56% to 79%). In addition, the general dominance weights for Neuroticism were significantly larger than the other domain weights across all possible comparisons. Following Neuroticism, (low) Agreeableness accounted for the second largest amount of variance in the vulnerable narcissism composite (range = 13% to 28%). (Low) Extraversion (range = 6% to 10%) and (low) Conscientiousness (range = 2% to 14%) both accounted for a small but notable amount of variance in the vulnerable narcissism outcomes. Conscientiousness’s importance was more variable across samples. Last, Openness was the least important predictor of variance in the vulnerable narcissism outcomes (range = 0% to 5%); only in Sample 4 did Openness show a non-zero general dominance weight.

Table 2 General Dominance Weights for FFM Domains

	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness	R ²
S1: Vulnerable narcissism composite	.66**	-.25**	-.04	-.28**	-.16	.52
GD weight	.41 (79%) ^a	.03 (6%) ^{bc}	.00 (0%) ^d	.07 (13%) ^b	.01 (2%) ^c	
S2: PNI Vulnerable	.64**	-.32**	.02*	-.51**	-.35*	.50
GD weight	.28 (56%) ^a	.04 (8%) ^c	.00 (0%) ^d	.14 (28%) ^b	.04 (8%) ^c	
S3: Vulnerable narcissism composite	.70**	-.30**	.02	-.41**	-.46**	.58
GD weight	.36 (62%) ^a	.04 (7%) ^b	.00 (0%) ^c	.10 (17%) ^d	.08 (14%) ^d	
S4: Vulnerable narcissism composite	.80**	-.43**	-.28**	-.50**	-.33**	.73
GD weight	.46 (63%) ^a	.07 (10%) ^b	.04 (5%) ^b	.12 (16%) ^b	.04 (5%) ^b	

Note. FFM = Five-Factor Model; S1 = Sample 1; S2 = Sample 2; S3 = Sample 3; S4 = Sample 4; GD weight = general dominance weight; PNI = Pathological Narcissism Inventory. The first row for each sample contains the zero-order correlation between the domin and VN. The proportion of R² accounted for is derived from the ratio of the general dominance weight to the total R². Percentages with mismatching superscripts indicate that the general dominance weights are significantly different from one another based on bootstrapped 95% confidence intervals. Matching superscripts indicate no significant differences between general dominance weights. Sample 1 (N = 237); Sample 2 (N = 347); Sample 3 (N = 596); Sample 4 (N = 98). **p < .01.

Empirical Similarity of Vulnerable Narcissism and Neuroticism

Sample 1. Vulnerable narcissism and Neuroticism were strongly related in Sample 1 (*r* = .66). In general, both vulnerable narcissism and Neuroticism were negatively related to the Extraversion, Agreeableness, and Conscientiousness domains and facets from the FFM and positive affect, as well as positively related to attachment difficulties (particularly an anxious attachment), hostile attribution biases in social cognition, psychopathology broadly construed, and most self-report *DSM-5* Section II personality disorders (see Tables 3–5). Across the 71 sets of correlations, eight were statistically significantly different (11%), such that vulnerable narcissism was more strongly negatively related to Agreeableness (and the facet of trust) and more strongly positively related to entitlement and narcissistic PD; conversely, Neuroticism was more strongly positively related to modesty and tendermindedness and negatively related to competence. The absolute profile similarity across 71 external correlates was .93.

The correlates of the residualized vulnerable narcissism scores, in which the variance it shared with Neuroticism was removed, were limited to small to moderate negative correlations with Agreeableness and its facets of trust and modesty, as well as positive correlations with entitlement, the experience and expression of anger, internalizing symptoms (e.g., paranoia, interpersonal sensitivity), and personality pathology, specifically paranoid and narcissistic PDs.

Sample 2. Vulnerable narcissism and Neuroticism were strongly related in Sample 2 (*r* = .64). Both vulnerable narcissism and Neuroticism were positively related to retrospective reports of adverse events in childhood, including an array of abusive experiences and poorer parenting (e.g., more intrusiveness, less monitoring and warmth), attachment anxiety, and avoidance (see Table 6). With regard to self-reported personality, both constructs were negatively related to Extraversion, Agreeableness, and Conscientiousness. The pattern of results was similar when using informant-reported personality traits (although correlations were not always significant because of

the reduced statistical power), such that vulnerable narcissism and Neuroticism were both generally negatively related to Extraversion, Agreeableness, and Conscientiousness, and positively

Table 3 Sample 1: Vulnerable Narcissism and Neuroticism in Relation to Personality Traits

	Vulnerable Narcissism	Neuroticism	Vulnerable-Partialled
Extraversion	-.25*	-.19	-.17
Warmth	-.23*	-.16	-.16
Gregariousness	-.18	-.07	-.18
Assertiveness	-.23*	-.27*	-.07
Activity	-.10	-.07	-.07
Excitement seeking	-.06	-.04	-.04
Positive emotions	-.26*	-.16	-.21*
Openness	-.04	.02	-.07
Fantasy	.03	.10	-.04
Aesthetics	.00	.08	-.07
Feelings	.17	.24*	.01
Actions	-.25*	-.18	-.18
Ideas	-.07	-.17	.06
Values	-.07	.02	-.10
Agreeableness	-.28**	-.02 ^b	-.36*
Trust	-.46**	-.28**	-.36*
Straightforwardness	-.16 ^a	.03 ^b	-.24*
Altruism	-.19	-.06	-.21*
Compliance	-.17	-.06	-.18
Modesty	-.07 ^a	.23**	-.30*
Tendermindedness	-.09 ^a	.13 ^b	-.23*
Conscientiousness	-.16	-.27*	.02
Competence	-.16 ^a	-.34**	.09
Order	-.01	-.08	.06
Dutifulness	-.10	-.17	.02
Achievement striving	-.12	-.18	.00
Self-discipline	-.28*	-.35*	-.07
Deliberation	-.07	-.13	.03
Self-esteem	-.48*	-.61*	-.10
Entitlement	.24**	.03 ^b	.29*

Note. Correlations = *p* ≤ .001. Correlations within each row with different superscripts are significantly different at *p* ≤ .001 (test of dependent *r*s; Cohen & Cohen, 1983). Boldfaced *r*s for the partialled vulnerable narcissism scores are for correlation ≥ .25.

Table 4 Sample 1: Vulnerable Narcissism and Neuroticism and Interpersonal Relations

	Vulnerable Narcissism	Neuroticism	Vulnerable-Partialled
Attachment styles			
Anxiety	.50*	.55*	.19
Avoidance	.28*	.23*	.17
Social Cognition			
Experience anger	.42*	.35*	.25*
Express anger	.27*	.18	.21*
Be rude	.27*	.15	.22*
Yell	.17	.07	.16
Threaten	.13	.01	.17
Use physical aggression	.03	-.04	.07
Negotiation			
Acquisitiveness	.06	.02	.06
Apprehensiveness	.16	.12	.10
Harvest bids	-.01	-.02	.01
Thin Slices Ratings			
Neuroticism	.16	.23*	.02
Extraversion	-.18	-.21	-.07
Openness	-.10	.01	-.14
Agreeableness	-.03	.00	-.04
Conscientiousness	.10	.08	.06
Attractiveness	-.07	.02	-.10
Likability	-.11	-.14	-.03
Narcissism	-.01	-.10	.07

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). Bold-faced r s for the partialled vulnerable narcissism scores are for correlation $\geq .25$.

related to Neuroticism. Finally, both constructs were generally positively related to proactive and reactive aggression. Across the 23 sets of correlations, one was statistically significantly different (4%), such that Neuroticism was more strongly negatively related to self-reported Extraversion. The absolute profile similarity across 23 external correlates was .97.

The correlates of the residualized vulnerable narcissism scores, in which the variance it shared with Neuroticism was removed, were limited to small to moderate negative correlations with self- and informant-reported Agreeableness, as well as positive relations with attachment anxiety, parental intrusiveness, and proactive aggression.

Sample 3. Vulnerable narcissism and Neuroticism were strongly related in Sample 3 ($r = .70$). In general, both vulnerable narcissism and Neuroticism were negatively related with Extraversion, Agreeableness, Conscientiousness, and self-esteem, and positively correlated with symptoms of anxiety and depression, as well as reactive and proactive aggression (see Table 7). Across the 35 sets of correlations, 18 (51%) were significantly different, such that vulnerable narcissism was more strongly negatively related to Agreeableness (e.g., straightforwardness), whereas Neuroticism was more strongly negatively related to Extraversion, Conscientiousness, and self-esteem and more strongly positively related to internalizing symptoms. The absolute profile similarity across 35 external correlates was .90.

The residualized vulnerable narcissism variable manifested its largest correlations with Agreeableness and its facets of straightforwardness, compliance, and modesty.

Sample 4. Vulnerable narcissism and Neuroticism were strongly related in Sample 4 ($r = .80$). In general, both vulnerable narcissism and Neuroticism were positively related to the majority of interviewer-rated *DSM-5* Section II PD symptom counts, including paranoid, borderline, avoidant, dependent, and obsessive-compulsive PDs (see Table 8). With regard to the Section III alternative model of PDs, both vulnerable narcissism and Neuroticism were positively related to interviewer ratings of Criterion A personality dysfunction in identity, self-direction, empathy, and intimacy, as well as Criterion B ratings of pathological personality, particularly the domains of negative affectivity and detachment and their underlying facets (see Table 9). Across the 47 sets of correlations, none (0%) were significantly different. The absolute profile similarity across 47 external correlates was .92. The residualized vulnerable narcissism variable manifested its largest correlations with *DSM-5* Section II PD symptoms counts of paranoid, schizotypal, and narcissistic PDs, Section III empathic

Table 5 Sample 1: Vulnerable Narcissism and Neuroticism in Relation to Psychological Distress, Affect, and *DSM-5* PDs

	Vulnerable Narcissism	Neuroticism	Vulnerable-Partialled
Psychopathology			
Somatization	.29*	.38*	.06
Obsessive-compulsive	.46*	.50*	.18
Interpersonal sensitivity	.61*	.63*	.26*
Depression	.54*	.58*	.21*
Anxiety	.38*	.48*	.08
Hostility	.36*	.33*	.19
Phobic anxiety	.35*	.41*	.10
Paranoia	.53*	.46*	.31*
Psychoticism	.55*	.52*	.28*
Global distress	.55*	.58*	.22*
Affect			
Positive	-.25*	-.34*	-.04
Negative	.40*	.52*	.07
DSM-IV PDs			
Paranoid	.54*	.39*	.38*
Schizoid	.12	.00	.15
Schizotypal	.44*	.32*	.31*
Antisocial	.06	.02	.06
Borderline	.53*	.56*	.22*
Histrionic	.21*	.13	.16
Narcissistic	.43 ^a	.20 ^b	.40*
Avoidant	.55*	.56*	.24*
Dependent	.39*	.43*	.14
Obsessive-compulsive	.42*	.32*	.27*

Note. $p \leq .001$. Correlations within each row with different superscripts (tested for vulnerable narcissism vs. neuroticism) are significantly different at $p \leq .001$ (test of dependent r s; Cohen & Cohen, 1983). PDs = personality disorders. Bold-faced r s for the partialled vulnerable narcissism scores are for correlation $\geq .25$.

Table 6 Sample 2: Vulnerable Narcissism and Neuroticism in Relation to Interpersonal Risk Factors, Personality Constructs, and Externalizing Behaviors

	Vulnerable Narcissism	Neuroticism	Vulnerable-Partialled
Abuse			
Physical	.20*	.23*	.07
Verbal	.23*	.31*	.03
Sexual	.19*	.17	.10
Emotional	.28*	.35*	.07
Total	.31*	.37*	.09
Parenting			
Monitoring	-.19*	-.17	-.11
Warmth	-.13	-.18*	-.02
Intrusiveness	.34*	.31*	.18*
Attachment style			
Anxiety	.59*	.60*	.27
Avoidance	.37*	.36*	.18
FFM			
<i>Self</i>			
Extraversion	-.32 ^a	-.52 ^b	.01
Openness	.02	-.06	.07
Agreeableness	-.51*	-.38*	-.35*
Conscientiousness	-.35*	-.38*	-.14
<i>Informant</i>			
Neuroticism	.33*	.44*	.08
Extraversion	-.22	-.22	-.11
Openness	.10	.07	.07
Agreeableness	-.24	-.18	-.17
Conscientiousness	-.25*	-.18	-.18
Externalizing			
Substance use	.07	-.03	.11
Antisocial behavior	-.05	-.04	-.04
Proactive aggression	.27*	.16	.21*
Reactive aggression	.30*	.28*	.16

Note. $p \leq .001$. Correlations within each row with different superscripts (tested for vulnerable narcissism vs. neuroticism) are significantly different at $p \leq .001$ (test of dependent r s; Cohen & Cohen, 1983). FFM = Five-Factor Model. Boldfaced r s for the partialled vulnerable narcissism scores are for correlation $\geq .25$.

personality dysfunction, and the Section III pathological traits of anxiousness, suspiciousness, and callousness.³

DISCUSSION

As noted in Cain and colleagues' (2008) review, emotional and ego-based vulnerability have long been recognized in some accounts of narcissism, including Kohut's (1971), Gabbard's (1989), Millon's (1996), and Ronningstam's (2005). However, empirical work on these components of narcissism began in earnest only 15 years ago, especially with regard to understanding the nomological networks of grandiose and vulnerable dimensions of narcissism. For instance, there have been a number of relatively recent studies that demonstrate the widely diverging empirical correlates of these dimensions (e.g., Dickinson & Pincus, 2003; Krizan & Johar, 2012; Miller et al., 2011), including the basic personality traits that underlie them (e.g., see

Campbell & Miller, 2013; Miller et al., in press). Briefly, antagonistic/non-communal interpersonal styles (e.g., Miller, Price, Gentile, Lynam, & Campbell, 2012) appear to underlie both, but the two differ primarily in the respective roles of Neuroticism and Extraversion. Grandiosely narcissistic individuals tend to be low on the former and high on the latter, whereas vulnerably narcissistic individuals tend to be high on the former and low on the latter.

In the current study, we used dominance analyses to quantify the relative importance of basic dimensions of personality, with the expectation that Neuroticism would account for the lion's share of the variance in vulnerable narcissism, followed at some distance by antagonism. The results of these analyses across

Table 7 Sample 3: Vulnerable Narcissism and Neuroticism in Relation to Personality and Behavioral Correlates

	Vulnerable Narcissism	Neuroticism	Vulnerable-Partialled
Extraversion	-.29 ^a	-.57 ^b	.16*
Warmth	-.36 ^a	-.55 ^b	.03
Gregariousness	-.20 ^a	-.39 ^b	.10
Assertiveness	-.21 ^a	-.48 ^b	.18*
Activity	-.17 ^a	-.35 ^b	.11
Excitement seeking	.04 ^a	-.12 ^b	.17*
Positive Emotions	-.35 ^a	-.56 ^b	.07
Openness	.03	.00	.04
Fantasy	.20*	.13	.16*
Aesthetics	-.09	-.15*	.01
Feelings	.33 ^a	.48 ^b	-.01
Actions	-.28*	-.32*	-.07
Ideas	-.12	-.21*	.04
Values	.06	.08	.01
Agreeableness	-.40 ^a	-.22 ^b	-.35*
Trust	-.37	-.35*	-.16*
Straightforwardness	-.39 ^a	-.17 ^b	-.39*
Altruism	-.29	-.31*	-.10
Compliance	-.41	-.33*	-.25*
Modesty	-.01 ^a	.33 ^b	-.33*
Tendermindedness	-.11	-.02	-.13
Conscientiousness	-.47 ^a	-.62 ^b	-.04
Competence	-.31 ^a	-.56 ^b	.12
Order	-.22 ^a	-.33 ^b	.02
Dutifulness	-.39*	-.39*	-.16*
Achievement striving	-.18 ^a	-.37 ^b	.12
Self-discipline	-.46*	-.53*	-.12
Deliberation	-.41*	-.47*	-.12
Functional Correlates			
Anxiety	.60 ^a	.75 ^b	.09
Depression	.58 ^a	.77 ^b	.05
Substance use	.06	.07	.02
Antisocial behavior	.11	.09	.08
Proactive aggression	.26*	.20*	.17*
Reactive aggression	.43*	.41*	.20*
Self-esteem	-.60 ^a	-.79 ^b	-.06

Note. $p \leq .001$. Correlations within each row with different superscripts (tested for vulnerable narcissism vs. neuroticism) are significantly different at $p \leq .001$ (test of dependent r s; Cohen & Cohen, 1983). Boldfaced r s for the partialled vulnerable narcissism scores are for correlation $\geq .25$.

Table 8 Sample 4: Vulnerable Narcissism and Neuroticism in Relation to PDs and PD Impairment

	Vulnerable Narcissism	Neuroticism	Vulnerable-Partialed
<i>DSM-5 Section II PDs</i>			
Paranoid	.53*	.45*	.29
Schizoid	.35*	.29	.20
Schizotypal	.38*	.27	.27
Antisocial	.29	.29	.10
Borderline	.45*	.53*	.05
Histrionic	.09	.03	.12
Narcissistic	.33*	.20	.32
Avoidant	.56*	.57*	.18
Dependent	.48*	.57*	.05
Obsessive-compulsive	.39*	.37*	.18
<i>DSM-5 Section III Criterion A</i>			
Identity	.61*	.64*	.16
Self-direction	.44*	.47*	.10
Empathy	.43*	.32*	.28
Intimacy	.48*	.48*	.14

Note. $p \leq .001$. Correlations within each row with different superscripts (tested for vulnerable narcissism vs. neuroticism) are significantly different at $p \leq .001$ (test of dependent r s; Cohen & Cohen, 1983). PDs = personality disorders. Boldfaced r s for the partialled vulnerable narcissism scores are for correlation $\geq .25$.

four diverse samples—two samples of undergraduates, online participants from MTurk, and participants recruited from the community who were in mental health treatment—were consistent with these predictions. In general, the FFM dimensions accounted for between 50% and 73% of the variance in vulnerable narcissism scores. Neuroticism accounted for the large majority of this variance across all four samples (65% on average), followed by antagonism (18.5% on average), introversion (7.75% on average), and disinhibition (7.25% on average). Overall, vulnerable narcissism is a construct best characterized by intense negative emotionality/emotional dysregulation, much like its near neighbor, borderline personality disorder (e.g., Miller et al., 2010).⁴ Vulnerable narcissism is certainly not alone in being strongly characterized by Neuroticism, a trait with tremendous real-world implications (Cuijpers et al., 2010; Lahey, 2009), as research has demonstrated that it may well serve as the common core of psychopathology (Tackett et al., 2013), which would explain why it is a substantial correlate of the vast majority of Axis I and II disorders (e.g., Kotov et al., 2010; Samuel & Widiger, 2008).

Across 176 external criteria measured in 4 different samples, vulnerable narcissism and FFM Neuroticism manifested an average absolute similarity in their correlational profiles of .94—suggesting that the two have nearly identical empirical profiles of general personality traits, pathological personality traits, personality disorders, personality dysfunction, attachment styles, affect, internalizing and externalizing symptoms, and social cognition, to name just a few of the constructs assessed here. Tests of *dependent* r s suggested that the primary differences lay in the statistically stronger correlations found between vulnerable narcissism and FFM antagonism (and facets of distrust [Sample 1 only],

straightforwardness [Sample 2 only], and modesty), narcissistic PD (Sample 2 only), and entitlement, and Neuroticism’s stronger relations with internalizing symptoms, introversion (Samples 2 and 3), and self-esteem (negative). These differences in interpersonal correlates were also found in the analyses that examined the correlates of vulnerable narcissism in which the variance it shared with Neuroticism was removed. In general, the partialled vulnerable narcissism construct manifested small to moderate negative relations with FFM Agreeableness, especially trust and modesty; the experience and expression of anger in social situations; interpersonal sensitivity and distrust from the Brief Symptom Inventory; and personality disorders associated with suspiciousness and anger (e.g., paranoid, schizotypal, and narcissistic PDs); as well as diminished empathy.

Table 9 Sample 4: Vulnerable Narcissism and Neuroticism in Relation to Personality Pathology

DSM-5 Section III Criterion B	Vulnerable Narcissism	Neuroticism	Vulnerable-Partialed
Negative affectivity	.67*	.66*	.24
Detachment	.38*	.40*	.12
Antagonism	.31	.24	.20
Disinhibition	.20	.26	-.03
Psychoticism	.21	.12	.19
Submissiveness	.31	.34*	.04
Depressivity	.54*	.58*	.12
Separation insecurity	.42*	.45*	.09
Anxiousness	.51*	.44*	.27
Emotional lability	.34*	.43*	.00
Suspiciousness	.41*	.32*	.25
Restricted affectivity	.13	.11	.07
Withdrawal	.36*	.39*	.12
Intimacy avoidance	.30	.27	.13
Anhedonia	.40*	.39*	.15
Manipulativeness	.21	.17	.13
Deceitfulness	.34*	.30	.15
Hostility	.43*	.42*	.17
Callousness	.27	.14	.28
Attention seeking	.12	.06	.12
Grandiosity	.16	.07	.17
Irresponsibility	.28	.27	.10
Impulsivity	.23	.27	.01
Distractibility	.20	.21	.02
Perseveration	.35*	.28	.20
Rigid perfectionism (lack of)	.14	.12	.09
Risk taking	.26	.28	.04
Eccentricity	.09	.05	.07
Cognitive & perceptual dysregulation	.18	.11	.18
Unusual beliefs & experiences	.20	.08	.22
<i>Functional correlates</i>			
Antisocial behavior	.12	.09	.04
Drug use	.16	.22	-.05
Alcohol use/misuse	.26	.18	.21

Note. $p \leq .001$. Correlations within each row with different superscripts (tested for vulnerable narcissism vs. neuroticism) are significantly different at $p \leq .001$ (test of dependent r s; Cohen & Cohen, 1983). Boldfaced r s for the partialled vulnerable narcissism scores are for correlation $\geq .25$.

In sum, the majority of the substantive correlates of the *residualized* vulnerable narcissism scores fall under the larger theoretical umbrella of disagreeableness/antagonism. These results provide substantial support for a model of vulnerable narcissism in which the construct is primarily represented by stable negative emotionality/Neuroticism, coupled with interpersonal difficulties tied to a more cynical, distrustful approach, in which others' behavior and motivations are seen through the lens of a hostile attribution bias. Miller and colleagues (2010, p. 1555) have previously argued, when discussing the joint role of antagonism in grandiose and vulnerable narcissism, that "individuals who are high on grandiose narcissism may be disagreeable (e.g., immodest, aggressive) for both instrumental reasons (e.g., personal gain) and for reasons related to status and dominance, whereas . . . vulnerable narcissism . . . may be related to disagreeable interpersonal behavior due to affective dysregulation and distrust of others, both of which may stem from early childhood experiences."

Although disagreeableness is a vital part of vulnerable narcissism as it is currently operationalized, one might argue that these traits *should* be more strongly represented in existing measures of vulnerable narcissism than they currently are. At this point, vulnerable narcissism is mostly a disorder of Neuroticism. Thomas and colleagues (2012) had experts provide ratings of the size of correlations expected between Big Five personality dimensions and measures of vulnerable narcissism. These ratings were largely in line with the results presented here, such that Neuroticism was the largest expected correlate (.45), followed by Agreeableness (−.30), Extraversion (−.20), and Conscientiousness (−.15). Using these predicted correlations and meta-analytically derived correlations among the Big Five (Van der Linden, te Nijenhuis, & Bakker, 2010), we conducted a relative importance analysis (Tonidandel & LeBreton, 2011) using a procedure by Tonidandel and LeBreton (2015). Relative importance weights from this analysis were 64.74%, 23.58%, 8.23%, 2.80%, and 0.65% for Neuroticism, Agreeableness, Extraversion, Conscientiousness, and Openness, respectively. In general, the results obtained using expert predictions are fairly similar to those obtained in the present samples, with some evidence that experts believe that vulnerable narcissism should contain slightly more antagonism-related content (23.58% vs. 18.5%) than is found in current inventories. Miller and colleagues (in press, p. 30) have argued that there would be greater coherence across vulnerable and grandiose dimensions of narcissism if both required elevations on certain core traits such as grandiosity, entitlement, callousness, and manipulateness, as it would "ensure that these different presentations overlap to a greater degree and would likely improve the discriminant validity of vulnerable narcissism by making it less of a general and diffuse marker of psychopathology." Although Neuroticism would likely still be the primary base and driving factor of vulnerable narcissism, this reformulation would give greater weight to the disagreeable traits that are important—theoretically and empirically—to vulnerable narcissism and serve to distinguish it from "simple" Neuroticism/negative emotionality and borderline personality.

From a clinical perspective, it is possible that the treatment of grandiose and vulnerable narcissism may have to operate differently given the different traits that underlie the two, as well as their differential relations to distress (e.g., Miller et al. 2010, 2011). Vulnerable narcissism, which we believe one is more likely to find in therapeutic settings (Miller, Widiger, & Campbell, 2014), might be best addressed via psychotherapeutic and pharmacotherapy approaches that address the strong negative emotionality that characterizes this construct (e.g., Armstrong & Rimes, 2016; Bagby, Levitan, Kennedy, Levitt, & Joffe, 1999; Quilty, Meusel, & Bagby, 2008). Given the strong relations, similar nomological networks, and virtually identical trait profiles of vulnerable narcissism and borderline PD, treatments designed explicitly for individuals with borderline PD might be usefully employed for individuals with vulnerable narcissism, including dialectical behavior therapy (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991) and mentalization (Bateman & Fonagy, 2009). In contrast, individuals with grandiose narcissism, if they are found in treatment, are unlikely to benefit from therapies aimed at decreasing negative affect, as these individuals do not have high levels to begin with. Such individuals might be better served by interpersonal approaches that examine and target their interpersonal difficulties (e.g., Presnall, 2013).

LIMITATIONS AND CONCLUSIONS

Like much of the published data on vulnerable narcissism and Neuroticism, both of these constructs were measured exclusively with self-report approaches in the current study, although the dependent variables used varied from self-reports, laboratory tasks, thin slices, informant reports, and interview ratings. Unfortunately, all data across the four samples were cross-sectional in nature; thus, differential predictive validity was not compared in these analyses. Despite these limitations, the current studies provide substantial support for the notion that vulnerable narcissism is a disorder of Neuroticism, by and large, with some much smaller but important content related to intra- and interpersonal disagreeableness (e.g., suspiciousness, entitlement, self-absorption). Additional theoretical work is necessary to consider whether the current trait-based makeup of vulnerable narcissism is consistent with theoretical and clinical accounts or whether some revision is necessary that would place the interpersonal content on a more equal footing with the emotional dysregulation component of this disorder.

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Notes

1. The results reported for vulnerable narcissism from Sample 1 differ slightly from those reported in Miller et al. (2011), as an a priori vulnerable narcissism composite was used here, whereas an empirically derived vulnerable narcissism factor was used in the 2011 study.
2. Participants could endorse more than a single racial category; thus, these percentages sum to greater than 100%.
3. See supplemental Tables 1–7 for analyses run separately for each measure of vulnerable narcissism included in Samples 1, 3, and 4. The results were largely consistent across measures, suggesting the current findings are not limited to a specific conceptualization or assessment of the construct.
4. Borderline personality disorder and vulnerable narcissism are substantially related to one another (e.g., $r = .56$) and demonstrate nearly identical empirical correlates ($r_{ICC} = .93$; Miller et al., 2010).

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