

Grandiose and Vulnerable Narcissism and the *DSM-5* Pathological Personality Trait Model

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The *Diagnostic and Statistical Manual of Personality Disorders* (4th ed., American Psychiatric Association, 2000) personality disorders (PDs) that will be included in the *DSM-5* will be diagnosed in an entirely different manner; the explicit criterion sets will be replaced with impairments in self and interpersonal functioning and personality traits from a 25-trait dimensional model of personality pathology. From a trait perspective, narcissistic personality disorder (NPD), the focus of this study, is assessed using 2 specific traits: grandiosity and attention seeking. Using a sample collected online from Amazon's Mechanical Turk (MTurk; $N = 306$), we examined the relations among traits from a new measure of *DSM-5*'s trait model—the Personality Inventory for *DSM-5* (PID5; Krueger, Derringer, Markon, Watson, & Skodol, in press)—and grandiose and vulnerable narcissism. The 25 traits from PID5 captured a significant portion of the variance in grandiose and vulnerable factors, although the 2 specific facets designated for the assessment of NPD fared substantially better in the assessment of grandiose rather than vulnerable narcissism. These results are discussed in the context of improving the *DSM-5*'s ability to capture both narcissism dimensions.

The assessment and diagnosis of personality disorders (PDs) are set to undergo substantial changes when the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed. [*DSM-5*]; www.dsm5.org) is released. First, only the following six *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. [*DSM-IV*]; American Psychiatric Association, 2000) PDs will be included as official diagnoses: schizotypal, antisocial, borderline, narcissistic, avoidant, and obsessive-compulsive PD, along with a category titled Personality Disorder Trait Specified (PDTs). Second, a dimensional trait model with five higher order domains (i.e., negative affectivity, detachment, antagonism, disinhibition, and psychoticism) and 25 more specific facets (e.g., emotional lability, withdrawal, callousness, impulsivity, eccentricity) has been included for use in the diagnosis of the six PD types as well as the PDTs category. Along with evidence of self and interpersonal dysfunction, each PD type will be diagnosed on the basis of elevated scores of some number of traits from the aforementioned trait model. In this study, we examined the utility of the new *DSM-5* trait model, as measured by the Personality Inventory for *DSM-5* (PID5; Krueger, Derringer, Markon, Watson, & Skodol, in press), for the assessment of two narcissism dimensions: grandiose and vulnerable narcissism.

NARCISSISM IN THE *DSM-IV*

In the *DSM-IV-TR* (American Psychiatric Association, 2000), narcissistic personality disorder (NPD) was assessed with symptoms related to entitlement, grandiosity, a lack of empathy, grandiose fantasies (e.g., of success, wealth, status), and a heightened sense of uniqueness and self-importance, to name just a few. Although it is not entirely clear whether the *DSM-IV* NPD symptoms are best captured by a one-factor (grandiose only; Miller, Hoffman, Campbell, & Pilkonis, 2008) or a two-factor model (grandiose and vulnerable; Fossati et al., 2005),

it is clear that there are at least two dimensions of narcissism: grandiose and vulnerable. Grandiose narcissism includes traits such as grandiosity, aggression, and dominance, whereas vulnerable narcissism is thought to reflect a defensive and insecure grandiosity that obscures feelings of inadequacy, incompetence, and negative affect. Most narcissism researchers agree that the *DSM-IV* NPD symptoms emphasize the grandiose dimension over the vulnerable dimension (e.g., Cain, Pincus, & Ansell, 2008), although vulnerable aspects of narcissism are explicitly discussed in the descriptive text that accompanies the *DSM-IV* NPD criteria and figure prominently in many of the most popular theoretical perspectives on narcissism and NPD (e.g., Kohut, 1971; Morf & Rhodewalt, 2001).

NPD was originally set for deletion in *DSM-5* (see Miller, Widiger, & Campbell, 2010, for a review) but has been reinstated in the revised *DSM-5* Personality and Personality Disorder proposal. The revised proposal indicates that NPD will be diagnosed on the basis of (a) impairments in self (i.e., identity, self-direction) and interpersonal functioning (i.e., empathy, intimacy), and (b) the presence of two traits from the domain of antagonism: grandiosity and attention seeking. It is not clear, however, how decisions were made as to which traits were included in the overall *DSM-5* trait model and how these traits were assigned to the six specific PDs. For instance, although the inclusion of grandiosity and attention seeking is conceptually consistent with the empirical literature on NPD (at least for grandiose narcissism), it is not clear whether the inclusion of other traits from the *DSM-5* model (e.g., manipulativeness, callousness, hostility) or outside of this model (i.e., dominance/domineering) would improve its assessment. For instance, from a Five-factor model (FFM) trait perspective (a perspective that is commonly used in trait approaches to the study of PD; see Costa & Widiger, 2002), ratings by academicians (Lynam & Widiger, 2001) and clinicians (Samuel & Widiger, 2004), as well as meta-analytic results (Samuel & Widiger, 2008) suggest that traits related to anger, deceitfulness or manipulativeness, and altruism might be relevant to the assessment of NPD, to name just a few. Similarly, results from Hopwood, Thomas,

Received December 22, 2011; Revised April 1, 2012.

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Markon, Wright, and Krueger (in press) suggest that many other traits from the DSM-5 trait model besides grandiosity and attention seeking are correlated with NPD. For instance, seven other traits manifested correlations of .40 or higher with self-reported NPD scores (i.e., hostility, perseveration, suspiciousness, manipulativeness, deceitfulness, callousness, and perceptual dysregulation), as assessed by a self-report measure of PD (the Personality Diagnostic Questionnaire-4+; Hyler, 1994). In addition, another 10 PID5 traits manifested correlations equal to or greater than .30. The choice to use only these two traits, omitting other traits likely related to NPD, is most likely due to interest in improving the discriminant validity of the remaining PDs in DSM-5. That is, the DSM-5 Personality and Personality Disorder Work Group has made a point of limiting the traits shared by disorders (e.g., narcissistic and antisocial PDs) so as to decrease their overlap in an effort to address the rampant comorbidity that is found among the DSM-IV PDs. There is a potential cost of this approach, however, in that it might omit traits that are central to a construct (e.g., NPD: callousness) and thus decrease the construct validity of said diagnoses.

In addition, it is also not clear which DSM-5 traits would be included if one wanted to use this model to assess and diagnose problems with vulnerable narcissism—a construct that is receiving increased attention as of late (e.g., Miller et al., 2011; Pincus et al., 2009). Vulnerable aspects of NPD do appear in the DSM-5's descriptions of the self and interpersonal dysfunction ratings (e.g., "exaggerated self-appraisal may be inflated or deflated, or vacillate between extremes; emotional regulation mirrors fluctuations in self-esteem") but the two traits selected for NPD, grandiosity and attention seeking, emphasize grandiosity over vulnerability. Given that the self and interpersonal dysfunction clearly identifies dysfunction related to narcissistic vulnerability, there would be greater consistency across the various components of the diagnostic process if this emphasis was carried over into the actual trait perspective. We have argued previously that assessing both narcissism dimensions without explicitly recognizing the differences associated with the two is likely to lead to problems in building a cohesive and coherent understanding of NPD (Miller & Campbell, 2010; Miller, Widiger, & Campbell, 2010). This is a result of the fact that grandiose and vulnerable narcissism manifest substantially different networks of external correlates in relation to childhood experiences (e.g., abuse); attachment styles; personality traits from self-report, informant report, and thin-slice perspectives; psychopathology; self-esteem; engagement in externalizing behaviors; and utilization of clinical resources (Campbell & Miller, in press; Dickinson & Pincus, 2003; Miller, Dir, et al., 2010; Miller et al., 2011; Pincus et al., 2009; Wink, 1991). This was a major concern with the diagnosis of NPD in the DSM-IV, and the same concern exists in the proposed diagnosis of NPD in DSM-5.

THIS STUDY

In this study we tested a new inventory constructed to assess the pathological personality traits associated with DSM-5 PDs—the PID5—in relation to grandiose and vulnerable narcissism dimensions. An exploratory factor analysis (EFA) of a number of measures of narcissism and NPD was conducted to generate grandiose and vulnerable factors. We expected that certain measures would load only or primarily on a grandiose factor

(e.g., Narcissistic Personality Inventory [NPI; Raskin & Terry, 1998], Narcissistic Grandiosity Scale [NGS; Miller, Price, & Campbell, 2012; Rosenthal, Hooley, & Steshenko, 2007]), others would load only or primarily on a vulnerable factor (e.g., Hypersensitive Narcissism Scale [HSNS]; Glover, Miller, Lynam, Crego, & Widiger, in press; Hendin & Cheek, 1997; Miller et al., 2011), and others might load on both (e.g., Structured Clinical Interview for DSM-IV Personality Disorders—Personality Questionnaire [SCID-II/PQ; First, Gibbon, Spitzer, Williams, & Benjamin, 1997]; Psychological Entitlement Scale [PES; Campbell, Bonacci, Shelton, Exline, & Bushman, 2004]).

In addition to examining the PID5 correlational profile associated with both narcissism factors, we also tested the degree to which a portion of the DSM-5 (i.e., Criterion B) assessment of NPD (i.e., combination of scores on grandiosity and attention seeking) is sufficient for capturing the variance in grandiose and vulnerable narcissism. We also tested which traits might be important to the assessment and diagnosis of these two narcissism dimensions that are not included as part of the current Criterion B portion of the DSM-5 NPD proposal. Finally, we examined the discriminant validity of these two narcissism dimensions by comparing their PID5 trait profiles with profiles generated by DSM-IV PDs, as well as profiles generated by a total PD count and a PD severity score derived from work by Morey and colleagues (2011). The data on the PID5 correlates of the DSM-IV PDs, as well as total and severity scores, were taken from Hopwood et al. (in press) in which self-reported PID5 scores were compared to self-reported PD scores assessed with the PDQ-4 (Hyler, 1994) in a large sample of undergraduates.

METHOD

Participants and Procedure

Participants included 306 adults (57% male; 49% Asian; 46% Caucasian; M age = 29.7; SD = 10.2) who were recruited via Amazon's Mechanical Turk (MTurk) Web site.¹ This site allows for the collection of data from individuals using an online approach and results in more diverse samples than the typical convenience samples of U.S. undergraduates used in the majority of psychological research (see Buhrmester, Kwang, & Gosling, 2011, for a review). Individuals were compensated \$2.00 for completion of the study. Institutional review board approval was obtained for all aspects of the study.

Measures

Narcissistic Personality Inventory. The NPI (Raskin & Terry, 1988) is a 40-item, forced-choice, self-report measure of trait narcissism that generates a global narcissism score, as well as scores on several subscales. We focus here on the three NPI subscales articulated by Ackerman et al. (2011) as a result of a series of factor analyses: Leadership/Authority (LA: 11 items; M = 4.97, SD = 2.77, α = .73), Grandiose Exhibitionism (GE: 10 items; M = 3.14, SD = 2.61, α = .77), Entitlement/Exploitativeness (EE: 4 items; M = 1.10, SD = 1.07, α = .44).

¹Twenty-one individuals were removed from the original data set (N = 327) due to extensive missing data (i.e., failure to complete one entire measure or more) or obvious invalid responding.

Psychological Entitlement Scale. The PES (Campbell et al., 2004) is a 9-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 scale ranging from 1 (*strong disagreement*) to 7 (*strong agreement*). The mean for the PES was 34.67 ($SD = 11.21, \alpha = .88$).

Narcissistic Grandiosity Scale. The NGS (Rosenthal et al., 2007) asks participants to rate themselves on 16 adjectives such as *superior* and *omnipotent* on a scale from 1 (*not at all*) to 7 (*extremely*) scale. The mean for the NGS was 58.71 ($SD = 22.44, \alpha = .96$).

Hypersensitive Narcissism Scale. 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). The mean for the HSNS was 29.79 ($SD = 6.81, \alpha = .78$). Three parcels were made for use in the EFA: Parcel 1 included Items 1 to 3 ($\alpha = .55$); Parcel 2 included Items 4 to 6 ($\alpha = .55$); and Parcel 3 included Items 7 to 10 ($\alpha = .66$). Parcels were used for the HSNS but not other measures so that there would be at least three markers of vulnerable narcissism present in the subsequent EFA; this is important, as three markers of vulnerable narcissism are needed to allow a vulnerable narcissism factor to emerge, if justified.

Structured Clinical Interview for DSM-IV Personality Disorders—Personality Questionnaire. The SCID-II/PQ (First et al., 1997) is a 119-item self-report questionnaire designed to assess the *DSM-IV* PDs. In this study, we administered only the 17 items used to score the NPD scale ($M = 6.60, SD = 4.06, \alpha = .81$).

Personality Inventory for DSM-5. The PID5 (Krueger et al., in press) is a 220-item self-report measure designed to assess the 25 personality traits set for inclusion in the *DSM-5* Personality and Personality Disorder section. Items are scored on a scale from 0 (*very false or often false*) to 3 (*very true or often true*). Alphas ranged from .68 to .94 for the facets (median $\alpha = .86$).

RESULTS

Preliminary Analyses

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 seven self-report narcissism scales and subscales evinced correlations with one another ranging from .07 (NPI Leadership/Authority—HSNS) to .70 (PES—NGS) with a median of .41 (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 principal axis factoring with an oblimin rotation on the following scales: three scale-level scores from the NPI (LA, GE, and EE), SCID-II/PQ—NPD, PES, NGS, and three HSNS parcels. The HSNS was divided into three parcels to allow a two-factor structure to emerge as expected

TABLE 1.—Bivariate correlations among the seven narcissism scales.

	SCID NPD	NGS	NPI LA	NPI GE	NPI EE	PES	HSNS
SCID NPD	—						
NGS	.60*	—					
NPI LA	.40*	.50*	—				
NPI GE	.51*	.56*	.47*	—			
NPI EE	.52*	.38*	.27*	.28*	—		
PES	.64*	.70*	.33*	.44*	.40*	—	
HSNS	.52*	.29*	.06	.13	.36*	.41*	—

Note. SCID NPD = Structured Clinical Interview for *DSM-IV* Personality Disorder: Personality Questionnaire—NPD; NGS = Narcissistic Grandiosity Scale; NPI LA = Narcissistic Personality Inventory—Leadership/Authority; NPI GE = Narcissistic Personality Inventory—Grandiose Exhibitionism; NPI EE = Exploitativeness/Entitlement; PES = Psychological Entitlement Scale; HSNS = Hypersensitive Narcissism Scale.
* $p \leq .001$.

that would align with dimensions of grandiose and vulnerable narcissism. 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: 3.97, 1.66, 0.73, 0.64, and 0.57. The first two factors explained 62.65% 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. Both analyses suggested that only two factors should be extracted.

The two-factor solution is presented in Table 2. Factor 1 included primary factor loadings from scales typically associated with grandiose narcissism: NGS, SCID-II/PQ—NPD, PES, NPI GE, NPI LA, and NPI EE. Factor 2 was made up of primary factor loading from the three HSNS parcels and a secondary loading from SCID-II/PQ—NPD. Factor scores were extracted and used as the primary outcome variables in the following analyses; the grandiose and vulnerable factors were significantly correlated ($r = .37$).

Grandiose and Vulnerable Narcissism and Criterion B of the DSM-5 Trait Model (Via the PID5)

We first examined the correlations between the two narcissism factors and the 25 traits from the PID5 (see Table 3); we also tested whether the two narcissism factors manifested

TABLE 2.—Factor loadings from exploratory factor analysis of narcissism and narcissism-related traits.

	Factor	
	1	2
NGS	.83	.03
NPI GE	.72	-.11
SCID NPD	.66	.37
NPI LA	.65	-.18
PES	.65	.25
NPI EE	.41	.28
HSNS-1	.08	.82
HSNS-2	.22	.62
HSNS-3	-.14	.60

Note. Factor loadings $\leq .35$ are shown in bold. NGS = Narcissistic Grandiosity Scale; NPI GE = Narcissistic Personality Inventory—Grandiose Exhibitionism; SCID NPD = Structured Clinical Interview for *DSM-IV* Personality Disorder: Personality Questionnaire—NPD; NPI LA = Narcissistic Personality Inventory—Leadership/Authority; PES = Psychological Entitlement Scale; NPI EE = Narcissistic Personality Inventory—Exploitativeness/Entitlement; HSNS-1 = Hypersensitive Narcissism Scale—Parcel 1; HSNS-2 = Hypersensitive Narcissism Scale—Parcel 1; HSNS-3 = Hypersensitive Narcissism Scale—Parcel 3.

TABLE 3.—Personality Inventory for DSM-5 (PID5) correlates of grandiose and vulnerable narcissism factors.

	Grandiose		Vulnerable	
	<i>r</i>	Residual	<i>r</i>	Residual
Negative affectivity				
Emotional lability	.33 ^a	-.08	.57 ^{ab}	.41*
Anxiousness	.01 ^a	-.25*	.54 ^{ab}	.51*
Separation insecurity	.43*	-.04	.45*	.25*
Perseveration	.29 ^a	-.16	.62 ^{ab}	.45*
Submissiveness	.16	-.15	.29*	.18*
Hostility (A)	.48*	-.04	.61*	.38*
Restricted affect (D)	.32*	-.08	.30*	.10
Depressivity (D)	.19 ^a	-.18	.59 ^{ab}	.49*
Suspiciousness (D)	.37 ^a	.03	.56 ^{ab}	.41*
Detachment				
Withdrawal	.12 ^a	-.17	.55 ^{ab}	.46*
Anhedonia	.07 ^a	-.18	.55 ^{ab}	.51*
Intimacy avoidance	.26*	-.05	.44*	.30*
Antagonism				
Manipulativeness	.56 ^a	.03	.38 ^{ab}	.11
Deceitfulness	.54*	.04	.55*	.31*
Grandiosity	.76 ^a	.00	.43 ^{ab}	.00
Attention seeking	.67 ^a	.00	.32 ^{ab}	.00
Callousness	.55*	.09	.58*	.34*
Disinhibition				
Irresponsibility	.46*	.01	.52*	.31*
Impulsivity	.44*	.08	.40*	.22*
Rigid perfectionism	.38*	-.04	.43*	.22*
Distractibility	.23 ^a	-.12	.59 ^{ab}	.48*
Risk taking	.38 ^a	.17	.02 ^b	-.12
Psychoticism				
Unusual beliefs/perceptions	.53*	.06	.44*	.20*
Eccentricity	.20 ^a	-.11	.53 ^{ab}	.44*
Cognitive/perceptual dysregulation	.51*	.01	.57*	.33*
Adjusted <i>R</i> ² : DSM-5 2 traits	.63*		.19*	
Adjusted <i>R</i> ² : DSM-5 25 traits	.70*		.54*	

Note. Correlations within each row (first and third column only) with different superscripts are significantly different at $p \leq .001$ (test of dependent *r*s; Cohen & Cohen, 1983). Residual scores are the correlations between the narcissism factors and the PID5 after removing the variance accounted for by PID5 traits of grandiosity and attention seeking. Letters in parentheses indicate that this trait is thought to have a second loading on another domain (i.e., (D) = Detachment; see www.dsm5.org).

* $p \leq .001$.

significantly different correlations with the PID5 traits (test of dependent *r*s). In general, both grandiose (20 of 25) and vulnerable narcissism (24 of 25) factors manifested a high number of significant correlations with the PID5. The correlations differed, however, for 13 of 25 traits. In general, grandiose narcissism was most strongly correlated with traits from the domain of antagonism (e.g., grandiosity, attention seeking, manipulativeness), although it manifested significant correlations with traits from negative affectivity (e.g., hostility), disinhibition (e.g., irresponsibility), and psychoticism (e.g., unusual beliefs and perceptions). Conversely, vulnerable narcissism was strongly correlated with traits from all five domains. Simultaneous regression analyses revealed that the 25 PID5 facets accounted for 70% and 54% of the variance in the grandiose and vulnerable narcissism factors (i.e., adjusted *R*²).

Testing Criterion B of the DSM-5 NPD Trait Model

The current DSM-5 proposal for the diagnosis of NPD uses, in part (i.e., with the addition of evidence of self and interper-

sonal dysfunction), high scores on the facets of grandiosity and attention seeking. Consistent with this proposal, these two facets manifested significant correlations with both grandiose and vulnerable narcissism and accounted for significant variance in both narcissism factors (adjusted *R*² = .63 and .19, respectively).

It is possible, however, that these two dimensions are not sufficient to capture the entirety of either narcissism dimension. To examine this issue, each narcissism factor was regressed on these two PID5 scales (i.e., grandiosity and attention seeking) and the residuals were saved. These residualized scores were then correlated with the PID5 traits to provide data on the incremental validity evinced by other PID5 traits in the statistical prediction of the grandiose and vulnerable narcissism factors. These analyses shed light on whether any PID5 traits might provide incremental validity in the understanding of grandiose and vulnerable narcissism (see Table 3).

For grandiose narcissism, only the trait of anxiousness was significantly (negatively) correlated with the residual score, although a number of other facets from this domain and detachment manifested similar trends. We believe that the assessment of grandiose narcissism might benefit from the inclusion of traits representing the resilience to certain negative emotions and the higher levels of extraversion (e.g., assertiveness, activity level) typically associated with grandiose narcissism (see Miller & Maples, 2011 for a meta-analytic review), although the additional variance accounted for would be small.

For vulnerable narcissism, a large number (i.e., 20) of PID5 traits manifested significant correlations with the residualized scores, suggesting that there is much more to this narcissism dimension than grandiosity and attention seeking. Specifically, a majority of the scales related to heightened levels of negative affectivity, detachment, disinhibition, and psychoticism were significantly correlated with the vulnerable narcissism residualized scores. Interestingly, other aspects of antagonism, besides grandiosity and attention seeking, also proved to be important to the assessment of vulnerable narcissism, including callousness and deceitfulness.

Grandiose and Vulnerable Narcissism and DSM-IV PDs

Next we examined the relations between the PID5 trait profiles for grandiose and vulnerable narcissism and the PID5 trait profiles for the DSM-IV main text and appendix PDs, as well as scores capturing total PD symptoms and severity (see Table 4). As noted earlier, the DSM-IV PID5 trait profiles were taken from Hopwood et al. (in press) in which self-report PID5 scores were compared to self-report PD scores in a large sample (i.e., *N* = 808) of college students. The profile similarities were compared using simple Pearson correlations, which prove to be a good marker of similarity (McCrae, 2008). We also tested whether the profiles generated by grandiose and vulnerable narcissism in this sample were differentially correlated with the DSM-IV PD profiles from Hopwood et al., using a test of dependent correlations.

The PID5 profiles for grandiose and vulnerable correlations were not significantly related, $r = -.18$. The PID5 profile for grandiose narcissism was highly specific, yielding only a significant positive correlation with the PID5 profile for narcissistic PD ($r = .70$) and significant negative correlations with avoidant ($r = -.64$) and depressive PDs ($r = -.63$). Conversely, the PID5 profile for vulnerable narcissism was not specific, as it

TABLE 4.—Similarity of the grandiose and vulnerable narcissism profiles with *DSM-IV* personality disorder profiles.

	Grandiose	Vulnerable
Vulnerable	-.18	
Paranoid	-.02	.77*
Schizoid	-.35 ^a	.63 ^{*b}
Schizotypal	-.19 ^a	.73 ^{*b}
Antisocial	.41	.06
Borderline	-.30 ^a	.80 ^{*b}
Histrionic	.43	.36
Narcissistic	.70*	.42
Avoidant	-.64 ^{*a}	.77 ^{*b}
Dependent	-.30 ^a	.74 ^{*b}
Obsessive-compulsive	-.26	.56*
Passive aggressive	-.12 ^a	.90 ^{*b}
Depressive	-.63 ^{*a}	.77 ^{*b}
Personality disorder total	-.26 ^a	.90 ^{*b}
Personality disorder severity	-.39 ^a	.90 ^{*b}

Note. Correlations within each row with different superscripts are significantly different at $p \leq .001$ (test of dependent r s; Cohen & Cohen, 1983). Profiles for the *DSM-IV* personality disorder and personality disorder total and severity scores were taken from Hopwood et al. (in press).

* $p \leq .001$.

was significantly positively correlated with the *DSM-IV* profiles for paranoid, schizoid, schizotypal, borderline, avoidant, dependent, obsessive-compulsive, passive-aggressive, and depressive PDs, as well as the total count of PD symptoms endorsed and PD severity index (Morey et al., 2011). The correlations for the vulnerable profile were significantly stronger than the correlations for the grandiose profile for schizoid, schizotypal, borderline, dependent, passive-aggressive, and depressive PDs, as well as the profile for a total PD count and an index of PD severity.

DISCUSSION

Substantial changes have been proposed for the assessment and diagnosis of personality disorder in *DSM-5*. One fundamental component of this new proposal involves the creation of a new 25-trait dimensional model of personality pathology. The traits that make up this model will be a key part of the diagnostic process for personality disorders in *DSM-5* as they serve as Criterion B of the new *DSM-5* PD proposal. In this study, we tested this part of the *DSM-5* trait model, as measured by the PID5, in relation to both grandiose and vulnerable narcissism dimensions to examine (a) the overall *DSM-5* trait correlates of these two narcissism dimensions, (b) whether the two traits chosen for use as Criterion B in the *DSM-5* assessment of NPD (grandiosity and attention seeking) are adequate for the assessment of these narcissism dimensions, (c) whether there are other traits from this new *DSM-5* model that might improve the assessment of both narcissism dimensions, and (d) whether the *DSM-5* traits associated with each narcissism dimension manifest evidence of discriminant validity.

As with the *DSM-IV* (Fossati et al., 2005; Miller et al., 2008; Pincus & Lukowitsky, 2010), the assessment of NPD in *DSM-5* places greater attention and emphasis on the assessment and diagnosis of problems related to narcissistic grandiosity rather than narcissistic vulnerability. This decision is manifested by the reliance on two traits from the domain of antagonism and none from the domain of negative affectivity for the assessment

of NPD in *DSM-5*. As such, we expected that the diagnostic strategy for NPD in *DSM-5* would prove more successful in the assessment of grandiose rather than vulnerable narcissism, and this was the case in this study. These two traits, as assessed by the PID5, accounted for 63% of the variance in a grandiose narcissism factor compared with 19% of the variance in the vulnerable narcissism factor. Likewise, the inclusion of the other 23 PID5 traits only explained an additional 7% of variance in the prediction of grandiose narcissism compared with an additional 35% for vulnerable narcissism. Thus, the selection of these two traits, at least in regard to grandiose narcissism, was very effective. Finally, the relative similarity of the total predicted variance explained using all 25 traits—70% and 54% for grandiose and vulnerable narcissism, respectively—suggests that the PID5 is capable of capturing variance associated with both of these narcissism dimensions but that the traits associated with the vulnerable dimension are not as well specified in the *DSM-5* NPD proposal as compared to those specified for grandiosity.

Similar to previous studies, these results also provide good support for the discriminant validity of grandiose narcissism but poorer support for vulnerable narcissism. A comparison of the current PID5 trait profiles for grandiose and vulnerable narcissism with profiles obtained using *DSM-IV* PDs in a different sample (Hopwood et al., in press) demonstrated that the trait profile of grandiose narcissism was only significantly positively correlated with that of *DSM-IV* NPD (and significantly negatively correlated with avoidant and depressive PDs). Conversely, the trait profile manifested by vulnerable narcissism using the PID5 was significantly correlated with 9 of 12 *DSM-IV* PDs, as well as a count of total PD symptoms endorsed and a measure of PD severity. These results suggest that narcissistic vulnerability—as currently assessed in the literature—is common to the majority of PDs and might actually be more strongly linked to some other *DSM-IV* PDs than NPD. From a general trait perspective, this is not surprising, as vulnerable narcissism primarily is made up of substantial levels of neuroticism and negative emotionality, which are a central part of many PDs (Samuel & Widiger, 2008; Saulsman & Page, 2004). Similarly, self-absorption and egocentricism might be a common part of a number of psychological disorders in which a significant degree of distress is experienced. For instance, many scholars have noted the intrapersonal qualities and interpersonal consequences of depressive disorders due to a heightened focus on the self.

Narcissism and DSM-5: Moving Forward

Currently, the *DSM-5* treats NPD in a manner similar to its treatment in *DSM-IV* in that vulnerability is included less directly and centrally than the grandiose components. Specifically, in the *DSM-IV* vulnerability is prominently included in the descriptive text corresponding to the explicit criteria set but not in actual symptoms. Likewise, in the *DSM-5*, vulnerability is described in the self and interpersonal dysfunction portion of the diagnosis (i.e., Criterion A) but, as is clear from these findings, not in the actual traits used in Criterion B. This choice to continue the tradition of the *DSM-IV* into the *DSM-5* is not optimal in our opinion, as (a) some scholars on narcissism argue that narcissistic vulnerability is a fundamental part of the disorder (Morf & Rhodewalt, 2001; Pincus & Lukowitsky, 2010; Ronningstam, 2009), and (b) data exist to suggest that a fragile

or vulnerable “cluster” of individuals with NPD can be found (i.e., Russ, Shedler, Bradley, & Westen, 2008).

Instead, we believe the field would be better served by using a diagnostic procedure that distinguishes between grandiose and vulnerable forms explicitly, by including traits beyond grandiosity and attention seeking that are necessary for the assessment of narcissistic vulnerability. Inclusion of traits that reference this vulnerability as part of Criterion B would also help make this part of the diagnosis (i.e., Criterion B) consistent with Criterion A (i.e., self and interpersonal functioning), which does explicitly reference narcissistic vulnerability. As it currently stands, there is an explicit disconnect between the content of Criterion A, which recognizes both narcissistic vulnerability and grandiosity, and Criterion B, which recognizes only grandiosity. We believe that the current diagnostic proposal for the assessment of NPD is likely to replicate many of the problems found in the assessment of DSM-IV NPD, by commingling vulnerability and grandiosity without any explicit recognition that individuals can vary substantially in the degree to which they manifest both sets of traits. As a result, it is likely that there will be significant heterogeneity in the types of individuals who are diagnosed with DSM-5 NPD. To minimize these problems, it would be better to design a diagnostic system that could address this variability across these two narcissistic dimensions more explicitly.²

We propose the following revision for the assessment of NPD in DSM-5: A diagnostic specifier for NPD should be created that would recognize the degree to which substantial narcissistic vulnerability is present in an individual (i.e., NPD with vulnerable features). For example, an individual who presents primarily with (a) the requisite levels of self and interpersonal dysfunction, and (b) grandiosity and attention seeking, would be given the DSM-5 diagnosis of NPD with no specifier. If a second individual manifested these traits and also manifests clear evidence of substantial vulnerability in identity (e.g., deflated or unstable self-esteem), self-direction (e.g., a constant need for approval from others), and in personality traits (e.g., depressivity, anxiousness, emotional lability), this individual would be diagnosed with NPD with vulnerable features. This approach would be akin to the DSM-IV's procedure for differentiating an individual with major depressive disorder from one with major depressive disorder with psychotic or melancholic features.

By creating a system that can differentiate between Individuals 1 and 2, it would encourage recognition that these two individuals might behave quite differently in certain contexts, have different etiologies for their disorders, and require different treatment modalities. We base our hypotheses about the differences between these two individuals on the growing body of research that has demonstrated that these two narcissistic dimensions are associated with substantially different personality profiles, etiological factors such as childhood abuse and neglect, attachment styles, decision-making styles, social cognition, vulnerability to internalizing and externalizing problems, and utilization of clinical resources (e.g., Dickinson & Pincus, 2003; Miller, Dir, et al., 2010; Miller et al., 2011; Pincus et al., 2009).

As is clear in these data, someone with vulnerability will manifest a much broader range of psychopathological symptoms

compared to the narrower set of problems seen in grandiose forms of narcissism. Morey et al. (2011) suggested that a conceptualization of NPD that is broader than the DSM-IV conceptualization and includes the role of narcissistic vulnerability would result in a significantly more pathological construct. Similarly, scholars have argued that narcissistic vulnerability is a core factor in a number of personality disorders (Bender, Morey, & Skodol, 2011; Morey, 2005; Ronningstam, 2009) due to problems with empathy and perspective taking. Ultimately, we believe that an explicit recognition of the roles of both grandiosity and vulnerability would be a substantial advance and allow for a clearer delineation of the nomological networks that surround narcissistic grandiosity and narcissistic vulnerability. Importantly, the change we are proposing (i.e., the vulnerability specifier) would eliminate the confusion in the current (DSM-IV) diagnosis and is consistent with the empirical literature.

Limitations of This Research

This study relied entirely on self-report data and it will be important to test whether these findings generalize when using clinician ratings or informant reports of both the narcissism dimensions as well as data on the new DSM-5 trait model. In addition, although this sample was more diverse than most undergraduate samples because of the collection of data online using MTurk, it will be important to replicate these findings in a treatment-seeking sample. Finally, the relations tested here should be examined in a number of studies using a variety of measures of narcissism before making decisions as to which traits should be included in the assessment of NPD (or grandiose and vulnerable narcissism). This is especially relevant to the study of vulnerable narcissism, as the results reported here for this dimension are predicated on the validity of the HSNS.

CONCLUSIONS

The DSM-5 trait model, as assessed by the PID5, appears capable of capturing a substantial portion of the variance associated with both grandiose and vulnerable narcissism. The two traits specified for the diagnosis of NPD were quite successful at accounting for much of the important variance in grandiose narcissism in a parsimonious manner, although additional traits will need to be included if one is interested in assessing narcissism that is more strongly associated with vulnerability. These data suggest that the DSM NPD traits would have to be supplemented significantly to capture the variance in this dimension. It is our belief that further revisions should be made to the diagnostic procedure for NPD in DSM-5 to assess for the presence of both narcissistic grandiosity and vulnerability.

REFERENCES

- Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the Narcissistic Personality Inventory really measure? *Assessment, 18*, 67–87.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: American Psychiatric Association.
- Bender, D. S., Morey, L. C., & Skodol, A. E. (2011). Toward a model for assessing level of personality functioning in DSM-5, Part I: A review of theory and methods. *Journal of Personality Assessment, 93*, 332–346.

²The other option is to jettison one form of narcissism from the DSM-5, a solution that will ignore significant data and clinical experience.

- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6, 3–5.
- 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.
- Campbell, W. K., & Miller, J. D. (in press). Narcissistic Personality Disorder (NPD) and the Five-factor model: Delineating NPD, grandiose narcissism, and vulnerable narcissism. In P. T. Costa & T. A. Widiger (Eds.), *Personality disorders and the Five-factor model of personality* (3rd ed.). Washington, DC: American Psychological Association.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral science* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Costa, P. T., & Widiger, T. A. (2002). *Personality disorders and the Five-factor model of personality* (2nd ed.). Washington, DC: American Psychological Association.
- Dickinson, K. A., & Pincus, A. L. (2003). Interpersonal analysis of grandiose and vulnerable narcissism. *Journal of Personality Disorders*, 17, 188–207.
- 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.
- Glover, N., Miller, J. D., Lynam, D. R., Crego, C., & Widiger, T. A. (in press). The five-factor narcissism inventory: A five-factor measure of narcissistic personality traits. *Journal of Personality Assessment*.
- 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.
- Hopwood, C. J., Thomas, K. M., Markon, K. E., Wright, A. G., & Krueger, R. F. (in press). *DSM-5* personality traits and *DSM-IV* personality disorders. *Journal of Abnormal Psychology*.
- Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, 30, 179–185.
- Hyder, S. E. (1994). *Personality Diagnostic Questionnaire 4+*. New York, NY: New York State Psychiatric Institute.
- Kohut, H. (1971). *The analysis of the self*. New York, NY: International Universities Press.
- Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (in press). Initial construction of a maladaptive personality trait model and inventory for *DSM-5*. *Psychological Medicine*.
- 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.
- McCrae, R. R. (2008). A note on some measures of profile agreement. *Journal of Personality Assessment*, 90, 105–109.
- Miller, J. D., & Campbell, W. K. (2010). The case for using research on trait narcissism as a building block for understanding Narcissistic Personality Disorder. *Personality Disorders: Theory, Research, and Treatment*, 3, 180–191.
- 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., Hoffman, B. J., Gaughan, E. T., Gentile, B., Maples, J., & Campbell, W. K. (2011). Grandiose and vulnerable narcissism: A nomological network analysis. *Journal of Personality*, 79, 1013–1042.
- Miller, J. D., & Maples, J. (2011). Trait personality models of narcissistic personality disorder, grandiose narcissism, and vulnerable narcissism. In W. K. Campbell & J. D. Miller (Eds.), *Handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments* (pp. 71–88). Hoboken, NJ: Wiley.
- Miller, J. D., Price, J., & Campbell, W. K. (2012). Is the Narcissistic Personality Inventory still relevant? A test of independent grandiosity and entitlement scales in the assessment of narcissism. *Assessment*, 19, 8–13.
- Miller, J. D., Widiger, T. A., & Campbell, W. K. (2010). Narcissistic personality disorder and the *DSM-5*. *Journal of Abnormal Psychology*, 119, 640–649.
- Morey, L. C. (2005). Personality pathology as pathological narcissism. In M. Maj, H. S. Akiskal, J. E. Mezzich, & A. Okasha (Eds.), *World Psychiatric Association series: Evidence and experience in psychiatry* (pp. 328–331). New York, NY: Wiley.
- Morey, L. C., Berghuis, H., Bender, D. S., Verheul, R., Krueger, R. F., & Skodol, A. E. (2011). Toward a model for assessing level of personality functioning in *DSM-5*, Part II: Empirical articulation of a core dimension of personality pathology. *Journal of Personality Assessment*, 93, 347–353.
- Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, 12, 177–196.
- 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, 421–426.
- 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.
- Ronningstam, E. F. (2009). Narcissistic personality disorder: Facing *DSM-V*. *Psychiatric Annals*, 39, 194–201.
- Rosenthal, S. A., Hooley, J. M., & Steshenko, Y. (2007). *Distinguishing grandiosity from self-esteem: Development of the Narcissistic Grandiosity Scale*. Manuscript in preparation.
- 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. (2004). Clinicians' personality descriptions of prototypic personality disorders. *Journal of Personality Disorders*, 18, 286–308.
- Samuel, D. B., & Widiger, T. A. (2008). A meta-analytic review of the relationships between the Five-factor model and *DSM-IV-TR* personality disorders: A facet level analysis. *Clinical Psychology Review*, 28, 1326–1342.
- 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.
- Velicer, W. F. (1976). Determining the number of components from the matrix of partial correlations. *Psychometrika*, 41, 321–327.
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology*, 61, 590–597.