Is the Narcissistic Personality Inventory Still Relevant? A Test of Independent Grandiosity and Entitlement Scales in the Assessment of Narcissism

Joshua D. Miller[1], Joanna Price[1], and W. Keith Campbell[1]

Abstract

Some scholars have called for the replacement of the Narcissistic Personality Inventory (NPI) with more narrow scales measuring grandiosity and entitlement instead. In the current study, the authors examined the relations among the NPI and measures of grandiosity and entitlement, as well as in relation to a measure of the Five-Factor Model (FFM). The NPI manifested significant correlations with the alternative scales of entitlement and grandiosity and relatively similar patterns of correlations with the FFM traits. Of note, the NPI manifested significant incremental validity in the prediction of several FFM traits that are central to the conceptualization of narcissism. These findings suggest that some caution must be used before assuming that these lower-order scales can be used to replace the NPI in the assessment of narcissism.

Keywords

assessment, entitlement, grandiosity, narcissism

There has been increasing recognition and criticism of the predominance of the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) in the study of narcissism. These criticisms are multifold but include concerns about its relative focus on the assessment of grandiose rather than vulnerable narcissism, adaptivity versus maladaptivity, the reliability and replicability of its factor structure, and its relations with self-esteem and psychological functioning (e.g., Brown, Budzek, & Tamborski, 2009; Cain, Pincus, & Ansell, 2008; Rosenthal & Hooley, 2010). Several of these critiques also challenge the frequent use of the NPI total score in that it may obscure divergent relations between lower-order traits that comprise narcissism and central components of its nomological network.

As a result of these concerns, there is growing interest in the development of new assessment inventories aimed at capturing all (e.g., Pathological Narcissism Inventory [PNI]; Pincus et al., 2009) or some (e.g., Narcissistic Grandiosity Scale [NGS]; Rosenthal, Hooley, & Steshenko, 2011) of the traits associated with narcissism. Most recently, both Brown et al. (2009) and Rosenthal and Hooley (2010) have argued the NPI should be replaced with a combination of more narrow scales assessing narcissism-related traits. For instance, Brown et al. (2009) suggested that the NGS and Psychological Entitlement Scale (PES; Campbell, Bonacci,

Shelton, Exline, & Bushman, 2004) can be used alone or in combination to study narcissism. Rosenthal and Hooley (2010) expanded on this proposal and suggested that these two scales might be supplemented by the grandiose subscales of the PNI (PNI-G). These authors suggest that the use of these "new narcissism scales together may provide a complementary and comprehensive assessment of the range of narcissistic characteristics and problems in normal samples and could begin to make the NPI obsolete" (p. 463).

The use of lower-order traits to understand multidimensional constructs such as personality disorders holds much appeal, as it permits a more nuanced and fine-grained analysis of the manner in which these constructs lead to the behaviors most typically associated with the construct (e.g., aggression, self-enhancement). This type of work has a well-established history; for example, researchers have demonstrated how one can use Five-Factor Model (FFM) traits to understand personality disorders more broadly (Costa & Widiger, 2002) and psychopathy (e.g., Lynam

[1]University of Georgia, Athens, GA, USA

Corresponding Author:
Joshua D. Miller, Department of Psychology, University of Georgia, Psychology Building, Athens, GA 30602-3013, USA
Email: jdmiller@uga.edu

et al., 2011) and narcissism (Glover, Miller, Lynam, Crego, & Widiger, 2011), more specifically. One concern, however, with the proposals put forth by Brown et al. (2009) and Rosenthal and Hooley (2010) is that the authors have thus far failed to present evidence regarding whether the combination of these scales (i.e., the NGS, PES, and PNI-G) provides adequate coverage of narcissism. Despite the many critiques of the NPI, many of which raise valid concerns, it is important to note that the NPI manifests strong correlations with semistructured interviews of narcissistic personality disorder (NPD; Miller, Gaughan, Pryor, Kamen, & Campbell, 2009), as well as self-report measures of NPD (Samuel & Widiger, 2008), and evinces correlations with FFM traits that are quite consistent with what experts (Lynam & Widiger, 2001) and clinicians (Samuel & Widiger, 2004) consider most prototypical of NPD (e.g., Miller & Campbell, 2008; Miller et al., 2009). Several authors, ourselves included (Miller & Campbell, 2010), have argued that the NPI has led to a robust and sophisticated empirical literature. For example, Ronningstam (2005), a leading scholar in the study of narcissism/NPD, stated that results from studies using the NPI "have proven increasingly relevant and applicable to the understanding of exaggerated and pathological narcissistic functioning" (p. 29). Ultimately, we believe it is vital that these proposals that call for the replacement of the NPI demonstrate that the use of these lower-order trait scales captures all or most of the variance considered relevant to the study of narcissism. In the current study, we examine the relations among the NPI, NGS, PES, and PNI-G, as well as their relations with self-esteem and the traits associated with the FFM. We then test whether the NPI provides incremental validity above and beyond the combined scores associated with the other three scales and their interaction terms in the statistical prediction of the FFM domains and facets.

Method

Participants and Procedure

Participants included 148 (53% female; 86% Caucasian; mean age = 19.2 years; SD = 1.5) undergraduate students from the University of Georgia who participated in order to receive course credit. Students completed the questionnaires in small groups ranging from 1 to 4 individuals. Written consent to participate was obtained from each participant prior to completion of the self-report measures and debriefing.

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

Table 1. Correlations Among Four Self-Report Narcissism Scales

	NPI	NGS	PES	PNI-G
	R	*r*	*R*	
NPI	—			
NGS	.56*	—		
PES	.38*	.54*	—	
PNI-Grandiosity	.34*	.38*	.35*	—

Note. NPI = Narcissistic Personality Inventory; NGS = Narcissistic Grandiosity Scale; PES = Psychological Entitlement Scale; PNI-G = Pathological Narcissism Inventory–Grandiose factor.
*p < .01.

score, as well as scores on several subscales. We focus here on the NPI total score (M = 16.23; SD = 0.74; α = .86).

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 1 (*strong disagreement*) to 7 (*strong agreement*) scale. The mean for the PES was 28.84 (SD = 10.9l α = .91).

Narcissistic Grandiosity Scale. The NGS (Rosenthal et al., 2011) asks participants to rate themselves on 16 adjectives such as "superior" and "omnipotent" on a 1 (*not at all*) to 7 (*extremely*) scale. The mean for the NGS was 53.04 (SD = 18.6; α = .95).

Pathological Narcissism Inventory. The PNI (Pincus et al., 2009) is a 52-item self-report measure of traits related to vulnerable and grandiose narcissism. In the current study, we report only on the PNI-Grandiose narcissism factor, which is composed of three subscales: self-sacrificing self-enhancement, grandiose fantasies, and exploitativeness. The mean for the PNI-Grandiose factor was 68.80 (SD = 11.7; α = .79).

Revised NEO Personality Inventory (NEO PI-R). The NEO PI-R (Costa & McCrae, 1992) is a 240-item self-report inventory developed to assess five broad personality domains (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness) and six facets underlying each of the domains. Items are scored on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale. Alphas ranged from .89 to .92 for the domains and from .53 to .82 for the facets (median α = .74).

Rosenberg Self-Esteem Scale (RSE). The RSE (Rosenberg, 1965) is a 10-item self-report measure of global self-esteem. The mean for the RSE was 30.46 (SD = 4.9; α = .89).

Results

First, we examined the associations between the four narcissism-related scales. These scales manifested significant correlations ranging from .34 (NPI–PNI-G) to .56 (NPI–NGS; see Table 1). Second, we examined the four scales in

Table 2. Correlations Among Narcissism Scales and the NEO PI-R Traits and Self-Esteem

	NPI, r	NGS, r	PES, r	PNI-G, r	FFM NPD, r	NPI-residual, r
Neuroticism	−.24*[a]	−.14[a]	.16[b]	.17[b]	2.74	−.24*
Anxiety	−.15[a]	−.06[ab]	.12[b]	.14[b]	2.33	−.18
Angry Hostility	.15[ab]	.14[a]	.35*[b]	.22*[ab]	**4.08**	.07
Depression	−.30*[a]	−.21*[a]	.08[b]	.15[b]	2.42	−.28*
Self-consciousness	−.34*[a]	−.19[ab]	.00[bc]	.09[c]	<u>1.50</u>	−.31*
Impulsiveness	−.07[ab]	−.10[b]	.11[a]	.05[ab]	3.17	−.05
Vulnerability	−.31*[a]	−.17[ab]	.03[bc]	.11[c]	2.92	−.29*
Extraversion	.24*[a]	.18[a]	−.13[b]	.13[a]	3.51	.14
Warmth	−.11[ab]	−.04[a]	−.31*[b]	−.02[a]	<u>1.42</u>	−.11
Gregariousness	.15[a]	.14[a]	−.06[a]	.15[a]	3.83	.06
Assertiveness	.57*[a]	.35*[b]	.02[c]	.13[bc]	**4.67**	.44*
Activity	.26*[ab]	.28*[b]	.01[c]	.04[ac]	3.67	.13
Excitement Seeking	.22*[a]	.15[a]	.12[a]	.25*[a]	**4.17**	.06
Positive Emotions	−.08[ab]	−.12[ab]	−.29*[a]	−.02[b]	3.33	−.02
Openness	−.05[a]	−.12[a]	−.21*[a]	.00[a]	3.18	.03
Fantasy	−.07[ab]	−.12[ab]	−.14[a]	.11[b]	3.75	−.06
Aesthetics	−.09[a]	−.09[a]	−.15[a]	−.08[a]	3.25	−.03
Feelings	−.03[a]	−.17[a]	−.21[a]	.01[a]	<u>1.92</u>	.08
Actions	−.01[a]	−.11[a]	−.21[a]	−.11[a]	**4.08**	.08
Ideas	.12[ab]	.13[a]	−.09[b]	.11[ab]	2.92	.08
Values	−.15[a]	−.18[a]	−.12[a]	−.06[a]	2.67	−.02
Agreeableness	−.51*[a]	−.38*[ab]	−.50*[a]	−.27*[b]	<u>1.40</u>	−.32*
Trust	−.18*[a]	−.13[a]	−.23[a]	−.13[a]	1.42	−.11
Straightforwardness	−.49*[a]	−.31*[b]	−.35*[ab]	−.39*[ab]	<u>1.83</u>	−.32*
Altruism	−.28*[ab]	−.24*[ab]	−.41*[b]	−.11[a]	<u>1.00</u>	−.16
Compliance	−.40*[a]	−.21[b]	−.27[ab]	−.23*[ab]	<u>1.58</u>	−.34*
Modesty	−.61*[a]	−.56*[a]	−.60*[a]	−.26*[b]	<u>1.08</u>	−.31*
Tendermindedness	−.30*[ab]	−.27*[ab]	−.45*[b]	−.07[a]	<u>1.50</u>	−.16
Conscientiousness	.25*[ab]	.29*[b]	.05[a]	.02[a]	2.81	.12
Competence	.33*[a]	.29*[a]	.07[b]	.13[ab]	3.25	.21
Order	.16[a]	.19[a]	.10[a]	−.02[a]	2.92	.06
Dutifulness	.04[ab]	.23*[a]	−.07[b]	.03[ab]	2.42	−.09
Achievement Striving	.35*[a]	.32*[a]	.12[b]	.06[b]	3.92	.22*
Self-discipline	.25*[a]	.26*[a]	.00[b]	−.01[b]	2.08	.13
Deliberation	.01[a]	.08[a]	.01[a]	−.07[a]	2.25	.03
Self-esteem	.47*[a]	.36*[a]	.03[b]	−.06[b]		.32*

Note. Values in the FFM NPD column above 4.0 are bolded to indicate that expert raters believed these facets would be particularly high in prototypical cases of NPD, whereas values of 2.0 or lower are underlined to indicate that expert raters believed these facets would be particularly low in prototypical cases of NPD. NPI = Narcissistic Personality Inventory; NGS = Narcissistic Grandiosity Scale; PES = Psychological Entitlement Scale; PNI-G = Pathological Narcissism Inventory–Grandiose factor. Correlations with different subscripts are significantly different from one another; only the first four columns of correlations were tested.
*$p < .01$.

relation to the measures of the FFM and self-esteem. All four narcissism-related scales were significantly negatively correlated with the domain of Agreeableness; however, the PES and PNI-G differed from both the NPI and NGS with respect to their correlations with Neuroticism, Extraversion, Conscientiousness, and self-esteem (see Table 2).

Third, we examined quantitatively the similarities of the NPI trait profile with those generated by the NGS, PES, and PNI-G (see Table 3). To do this, we calculated second-order correlations between the sets of 36 correlations manifested by the narcissism scales (e.g., NPI's correlations with the 35 NEO PI-R traits and RSE correlated with NGS's correlations with the same 36 traits). The NPI's trait profile was strongly correlated with the NGS's profile ($r = .93$) and, to a lesser extent, the profiles associated with the PES ($r = .55$) and PNI-G ($r = .43$).

Fourth, we compared the FFM personality profiles generated by these four narcissism-related scales in relation to the expert ratings of the prototypical FFM profile of individuals with NPD (Lynam & Widiger, 2001). The

Table 3. Similarity of Trait Profiles Across the Narcissism Scales

	NPI	NGS	PES	PNI-G	FFM NPD	NPI-residual
NPI	—					
NGS	.93*	—				
PES	.55*	.61*	—			
PNI-G	.43*	.47*	.58*	—		
FFM NPD	.74*	.63*	.60*	.62*	—	
NPI-Residual	.89*	.82*	.39*	.36*	.70*	—

Note. NPI = Narcissistic Personality Inventory; NGS = Narcissistic Grandiosity Scale; PES = Psychological Entitlement Scale; PNI-G = Pathological Narcissism Inventory–Grandiose factor.
*$p < .01$.

profiles of all four scales were significantly related to the FFM NPD profile as well (rs ranged from .60 to .74), with the NPI evincing the largest association (see Table 3).

Finally, and most importantly, we tested the incremental validity of the NPI in predicting variance in the FFM traits not accounted for by scores on the PES, NGS, and PNI-G. This analytic strategy addresses whether NPI scores capture meaningful narcissism-related variance not accounted for by these three other narcissism scales (independently and in interaction). A residualized NPI score was created by regressing the NPI on centered scores for the PES, NGS, PNI-G, three 2-way interactions, and one 3-way interaction and saving the residuals. We then examined the NPI-residual scores in relation to the NEO PI-R (see final column of Table 2). Even after removing the variance shared with these three other narcissism-related variables, the NPI still manifested a number of significant correlations with traits important to NPD such as assertiveness ($r = .44$), straightforwardness ($r = -.32$), compliance ($r = -.34$), and modesty ($r = -.31$). In fact, the NEO PI-R trait profile evinced by the NPI-residual score was strongly related to the expert rated profile of NPD ($r = .70$; see Table 3). It is important to note that the additional variance explained by the NPI-residual scores in the FFM NPD profile is not simply due to its divergent relations with domains such as Neuroticism and Extraversion; NPI total scores accounted for an additional 10% of the total variance in FFM Agreeableness after accounting for the three other narcissism scales and their interaction terms.[1]

Discussion

A great deal of attention has been paid of late to the adequacy of the NPI for the assessment of narcissism with a particular focus on critiques of its performance (Brown et al., 2009; Cain et al., 2008; Pincus & Lukowitsky, 2010; Rosenthal & Hooley, 2010). Most recently, it has been suggested that those interested in studying narcissism should forego the use of the NPI and use independent scales assessing grandiosity and entitlement (Brown et al., 2009; Rosenthal & Hooley, 2010). One benefit of this approach

would be the ability to parse this multidimensional construct into smaller, lower-order traits in order to test how these individual traits are related to narcissism's nomological network. We support this mission and have made similar arguments about narcissism and psychopathy from the perspective of the FFM (e.g., Glover et al., 2011; Lynam et al., 2011).

One vital aspect of this type of research, however, is that one must identify and assess the core traits of the overarching construct. For instance, with regard to Brown and colleagues' suggestion for narcissism, it is important that the measures of grandiosity and entitlement sufficiently capture the variance in the NPI; failure to do so would be problematic if this variance is relevant to the study of narcissism. The incremental validity analyses presented in the current study (i.e., NPI-residual) demonstrated that the combination of grandiosity, as measured by the NGS and the PNI-Grandiose subscales, and entitlement, as measured by the PES, was not sufficient to assess all the relevant narcissism-related variance. The residualized NPI scores continued to manifest moderate correlations with expert ratings of the traits thought to be most prototypical of individuals with NPD including assertiveness, deceitfulness, noncompliance, and immodesty (Lynam & Widiger, 2001). In addition, the remaining variance in the NPI continued to manifest a substantial correlation with the expert rated FFM profile of NPD (i.e., $r = .70$).

Limitations and Conclusions

As we have argued elsewhere, we believe it is beneficial for the study of narcissism that attention is being devoted to the development of alternative assessment strategies outside of the NPI (Miller, Maples, & Campbell, in press). We also believe, however, that a more cautious approach is warranted when discussing the replacement or obsolescence of the NPI, a well-known and validated assessment of grandiose narcissism, with lesser known and less well-validated instruments such as the NGS, PES, or the grandiose subscales of the PNI. The current results provide initial evidence that such a change would result in the measurement

of this important construct with less emphasis on central traits such as dominance, immodesty, noncompliance, and manipulativeness. It will be important to test these findings using larger and more diverse samples, given that the current sample was relatively small and primarily composed of Caucasian undergraduates. In addition, it will be important to use this same analytic framework to test whether the NPI manifests incremental validity above and beyond this combination of alternative scales in the prediction of other core aspects of narcissism's nomological network (e.g., aggression, self-enhancement) to see if the current findings hold.

Declaration of Conflicting Interests

Funding

Note

1. In the Rosenthal and Hooley (2010) proposal, the authors suggested that PNI Entitlement Rage (ER) be included as one of a few PNI subscales used, along with measures such as the PES and NGS, to assess narcissism (rather than the NPI). The suggestion to use ER was most likely due to the original conceptualization of the PNI in which ER was considered to be part of the PNI-Grandiose factor (Pincus et al., 2009). More recent work by the authors of the PNI suggests that ER belongs instead on the PNI Vulnerable factor (Wright, Lukowitsky, Pincus, & Conroy, 2010). As such, we scored the PNI-Grandiose factor without ER as suggested by the most recent assertions by the PNI's authors. Nonetheless, the inclusion of ER as part of the PNI-Grandiose factor does not change the current results in any meaningful manner. The residualized NPI score using this latter strategy is strongly correlated with the residualized NPI score that did not include this subscale ($r = .92$) and remains strongly correlated with the prototypical FFM NPD ratings ($r = .65$).

References

Brown, R. P., Budzek, K., & Tamborski, M. (2009). On the meaning and measure of narcissism. *Personality and Social Psychology Bulletin, 35*, 951-964.

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.

Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual*. PAR, Inc.

Costa, P. T., & Widiger, T. A. (2002). *Personality disorders and the five-factor model of personality* (2nd ed.). Washington, DC: American Psychological Association.

Glover, N., Miller, J. D., Lynam, D. R., Crego, C., & Widiger, T. A. (2011). *The Five-Factor Narcissism Inventory: A Five-Factor measure of narcissistic traits*. Manuscript submitted for publication.

Lynam, D. R., Gaughan, E. T., Miller, J. D., Miller, D. J., Mullins-Sweatt, S., & Widiger, T. A. (2011). Assessing the basic traits associated with psychopathy: Development and validation of the Elemental Psychopathy Assessment. *Psychological Assessment, 23*, 108-124.

Lynam, D. R., & Widiger, T. A. (2001). Using the five factor model to represent the DSM-IV personality disorders: An expert consensus approach. *Journal of Abnormal Psychology, 110*, 401-412.

Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality, 76*, 449-476.

Miller, J. D., & Campbell, W. K. (2010). The case for using research on trait narcissism as a building block for understanding narcissistic personality disorder: A clarification and expansion. *Personality Disorders: Theory, Research, and Treatment, 3*, 200-201.

Miller, J. D., Gaughan, E. T., Pryor, L. R., Kamen, C., & Campbell, W. K. (2009). Is research using the Narcissistic Personality Inventory relevant for understanding narcissistic personality disorder? *Journal of Research in Personality, 43*, 482-488.

Miller, J. D., Maples, J., & Campbell, W. K. (in press). Comparing the construct validity of scales derived from the Narcissistic Personality Inventory: A reply to Rosenthal and Hooley (2010). *Journal of Research in Personality*.

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 principle-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. (2005). *Identifying and understanding the narcissistic personality*. New York, NY: Oxford University Press.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rosenthal, S. A., & Hooley, J. M. (2010). Narcissism assessment in social-personality research: Does the association between narcissism and psychological health result from a confound with self-esteem. *Journal of Research in Personality, 44*, 453-465.

Rosenthal, S. A., Hooley, J. M., & Steshenko, Y. (2011). *Distinguishing grandiosity from self esteem: Development of the Narcissistic Grandiosity Scale*. Manuscript in preparation.

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). Convergence of narcissism measures from the perspective of general personality functioning. *Assessment, 15*, 364-374.

Wright, A. G. C., Lukowitsky, M. R., Pincus, A. L., & Conroy, D. E. (2010). The higher order factor structure and gender invariance of the Pathological Narcissism Inventory. *Assessment, 17*, 467-483.