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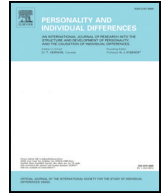
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Short Communication

Measuring narcissism with a single question? A replication and extension of the Single-Item Narcissism Scale (SINS)

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ABSTRACT

Drawing on a large sample of American adults ($N = 2153$) we replicate and extend the Single-Item Narcissism Scale (SINS) recently developed by Konrath, Meier, and Bushman (2014). Consistent with their initial study, we find that the SINS correlates positively with the Narcissistic Personality Inventory (NPI) and has good discriminant validity from common measures of self-esteem. Additionally, we provide new evidence that the SINS may not primarily tap into grandiose narcissism. We also find that in comparison to other common personality measures of narcissism, the SINS correlated somewhat less consistently with our behavioral measure and has a higher threshold for detecting narcissistic traits. Overall, we conclude that when inclusion of established measures is not feasible, the SINS may be a viable alternative.

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1. Introduction

Can narcissism, as a personality trait, be accurately measured with a single-item? There are many reasons to be skeptical about the use of single-item measures. Psychometrically, multiple indicators are generally more reliable because they provide; (a) greater coverage of the conceptual domain and (b) increased precision of measurement. Yet, perhaps most importantly, the ratio of “signal” to “noise” tends to increase with more indicators of the same latent construct¹ (Nunnally, 1978). Moreover, given that the most widely used measure of narcissistic personality is the multifactor 40-item Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979; Raskin & Terry, 1988), scholars generally seem to agree that trait narcissism in the non-clinical population is a complex and multidimensional phenomenon. In fact, Robins et al. (2001) explicitly state; “it is unlikely that a single-item measure would be valid for a multifaceted and psychodynamically complex construct such as narcissism” (p. 160).

Yet, in a recent study, Konrath, Meier, and Bushman (2014) present the “Single-Item Narcissism Scale (SINS)” which they develop, test, and validate across 11 independent studies. In terms of convergent validity,

the average correlation between the SINS and the NPI was significant and positive, $r = 0.40$ (min = 0.28, max = 0.50). In terms of discriminant validity, social-personality psychologists have increasingly raised a number of issues with the NPI's ability to accurately distinguish between narcissists and non-narcissists, with self-esteem as a confounding factor. Indeed, scholars have argued that it is important to conceptually distinguish normal or healthy self-esteem from narcissism (Rosenthal & Hooley, 2010; Rosenthal, Montoya, Ridings, Rieck, & Hooley, 2011). Accordingly, to establish discriminant validity of the SINS, Konrath et al. (2014) included a number of different common measures of self-esteem and reported a negative (non-significant) correlation between self-esteem and the SINS ($r = -0.09$, 95%CI: $-0.19, 0.01$). Lastly, in terms of construct validity, the authors correlated the SINS with a number of behavioral measures to see if the observed relationships are consistent with established findings in the literature. For example, consistent with prior work, the authors found that those who scored high on the SINS had lower empathy and pro-social but higher risk-taking and aggression tendencies (Konrath et al., 2014).

There are significant practical benefits to using single-item measures (e.g., they are less costly, less time-consuming, and reduce item redundancy and cognitive fatigue among subjects). Accordingly, valid single-item measures have been successfully developed in a number of contexts, including self-esteem (e.g., Robins et al., 2001), attitudes (Bergkvist & Rossiter, 2007), affect (e.g., Russell, Weiss, & Mendelsohn, 1989) and subjective well-being (e.g., Diener, Emmons, Larsen, & Griffin, 1985).

In support of the SINS, one could argue that a global self-evaluative measure of narcissism does not need to accurately represent all content domains of the personality trait. Moreover, as a measure that directly

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¹ According to classical reliability theory, responses reflect both random measurement error and true score variance. If observed errors are truly random then they should cancel out when aggregated over multiple items. Yet, this assumption may not hold if a scale has high redundancy of semantically equivalent content (Robins, Hendin, & Trzesniewski, 2001).

asks individuals whether they are narcissists, the SINS appears to have good face validity, given that individuals who admit that they are narcissistic, often are (Carlson, 2013).

Yet, Konrath et al. (2014) note that in comparison to the high correlation between single-item and longer measures of self-esteem ($r = 0.70\text{--}0.80$; e.g., Robins et al., 2001), the average correlation between the (SINS) and the NPI seems comparatively low ($r = 0.40$). Further, the authors suggest that the SINS was created to “tap into both grandiose and vulnerable aspects of the (non-clinical) narcissistic personality” (pp. 2–3), yet, later conclude that it is “impossible to know what aspects of narcissism the SINS taps into” (p. 13). Thus, it remains relatively unclear what element(s) of narcissism the SINS scale actually assesses.

1.1. The present study

In the present research, we explore three main issues with the studies presented by Konrath et al. (2014). First, with the exception of one larger national study ($N = 831$), each individual study was relatively low-powered, ranging from ($N = 40$) to ($N = 348$). Running a large number of weakly powered studies may increase the probability of Type I errors (i.e., false positives). Here, we re-assess the correlation ($r = 0.40$) between the SINS and the (16-item) NPI (Ames, Rose, & Anderson, 2006) using a high-powered and diverse sample of American adults ($N = 2,153$).

Second, we aim to shed some more light on the question of what aspects of sub-clinical narcissism the SINS measures. To assess this question, we correlate the SINS with a scale that specifically measures grandiosity; the Narcissistic Grandiosity Scale (NGS; Rosenthal, Hooley, Montoya, & Steshenko, in preparation). We hypothesize that if the SINS indeed assesses both grandiose and vulnerable aspects of narcissism, we would expect to observe a lower correlation between the SINS and the NGS than between the NPI and the NGS (both of which are thought to specifically measure grandiose narcissism). In addition, we also examine correlations between specific (“grandiose”) NPI-items and the SINS.

Lastly, we include a conceptually different “behavioral” measure, namely; an individual’s support for public action on global warming. Prior research has shown that narcissism is negatively correlated with pro-environmental behavior and cooperation in environmental resource dilemmas (Campbell, Bush, Brunell, & Shelton, 2005; Frantz, Mayer, Norton, & Rock, 2005; Naderi & Strutton, 2014). Accordingly, we investigate whether the SINS, NPI, and NGS each correlate as expected with our measure of public support for action on climate change.

2. Method

2.1. Procedure

We recruited a large and diverse sample of participants ($N = 2,153$) from Amazon Mechanical Turk. Research has shown that the Mturk platform is more demographically diverse and at least as reliable as other convenience or internet-based samples (Buhrmester, Kwang, & Gosling, 2011). Participants were invited to complete a public opinion and personality study and were paid \$0.50 for the task. Location was restricted to the United States.

2.2. Sample characteristics

Sample characteristics (56% female, modal age bracket 25–44, 37% Democrat, 17% Northeast) are displayed in Table 1 (with census data for comparison purposes). Compared to the national average, our sample includes slightly more female, liberal, and educated individuals.

Table 1
Sample characteristics.

Sample	($N = 2,153$)	Census
<i>Demographic characteristics</i>		
Gender (% female)	56	51
Age (modal bracket, 18–65+)	25–44	38
Education (% college degree or higher)	50	32
Region (% Northeast)	17.3	17.7
Party affiliation (% Democrat)	37	32

Note: US population 2013 census estimates. Age (median). Political party affiliation estimate by Pew (2015).

2.3. Measures

2.3.1. Single-Item Narcissism Scale (SINS)

We used the SINS measure as described by Konrath et al. (2014); “To what extent do you agree with this statement; “I am a narcissist (Note: The word ‘narcissist’ means egotistical, self-focused, and vain)” (1 = not very true of me, 7 = very true of me). Overall, average self-assessments were relatively low ($M = 2.16$, $SD = 1.41$).

2.3.2. The Narcissistic Personality Inventory (NPI)

The NPI is a self-report measure of trait narcissism that generates a global narcissism score. We used the 16-item NPI for brevity ($M = 4.0$, $SD = 3.26$, $\alpha = 0.77$), as it demonstrates sufficient reliability and is highly correlated with the full 40-item NPI ($r = 0.90$), see Ames et al. (2006). Scores range from 0 to 16.

2.3.3. The Narcissistic Grandiosity Scale (NGS)

The NGS developed by Rosenthal et al. (in preparation) measures narcissistic grandiosity by asking people to rate themselves on 16 adjectives such as “superior” and “brilliant” on a 1 (not at all) to 7 (extremely) scale ($M = 2.79$, $SD = 1.26$, $\alpha = 0.96$).

2.3.4. Self-esteem

We used both Robins et al.’s (2001) single-item measure of self-esteem (SISE); “I have high self-esteem” (1 = not very true of me, 7 = very true of me) as well as the 10-item Rosenberg (1965) self-esteem scale (RSE; e.g., “on the whole, I am satisfied with myself”, 1 = strongly disagree, 4 = strongly agree). The SISE ($M = 4.82$, $SD = 1.66$) and the RSE ($M = 3.08$, $SD = 0.61$, $\alpha = 0.92$) were strongly correlated ($r = 0.77$).

2.3.5. Climate change

Lastly, we asked participants the following question about climate change; “Do you think people should be doing more or less about climate change?” (1 = much less, 4 = same amount, 7 = much more). On average, some public support ($M = 5.46$, $SD = 1.57$) for the issue was expressed.

3. Results

Results (Table 2) reveal moderate positive correlations between the SINS and the 16-item NPI ($r = 0.38$, 95%CI: 0.35, 0.41) and between the SINS and the NGS ($r = 0.36$, 95%CI: 0.32, 0.40). These contrast with the notably stronger correlation between the NPI and NGS ($r = 0.58$, 95%CI: 0.55, 0.61). One explanation for this difference is that the SINS correlated most strongly with NPI items that measure exploitativeness (e.g., “I find it easy to manipulate people”; $r = 0.29$, 95%CI: 0.25, 0.33) and entitlement (e.g., “I expect a great deal from other people”; $r = 0.26$, 95%CI: 0.22, 0.30) rather than grandiosity (e.g., “I am going to be a great person”; $r = 0.09$, 95%CI: 0.05, 0.13 or “I always know what I am doing”; $r = 0.02$, 95%CI: -0.03 , 0.06).

Table 2
Intercorrelation matrix.

N = 2,153	SINS	NPI-16	NGS	SISE	RSE	Mean	Standard deviation
SINS	1					2.16	1.41
NPI-16	0.38***	1				4.00	3.26
NGS	0.36***	0.58***	1			2.79	1.26
SISE	−0.07***	0.34***	0.44***	1		4.82	1.66
RSE	−0.04**	0.22***	0.32***	0.77***	1	3.08	0.61

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. SINS = Single-Item Narcissism Scale; NPI = Narcissistic Personality Inventory; NGS = Narcissistic Grandiosity Scale; SISE = Single-Item Self-Esteem; RSE = Rosenberg Self-Esteem Scale.

The NPI positively correlated with the two measures of self-esteem and in fact was as strongly correlated with the SISE ($r = 0.34$, 95%CI; 0.30, 0.38) as with the SINS ($r = 0.38$, 95%CI; 0.35, 0.41), $Z = 0.75$, $p = 0.45$. In contrast to the NPI, the SINS was weakly and negatively correlated with the two measures of self-esteem (SISE; $r = -0.07$, 95%CI; -0.12 , -0.03 and RSE; $r = -0.04$, 95%CI; -0.08 , 0.00). As expected, all narcissism scales correlated negatively with the climate change support measure; NPI ($r = -0.06$, 95%CI; -0.10 , -0.02), NGS ($r = -0.04$, 95%CI; -0.08 , 0.00) and SINS ($r = -0.01$, 95%CI; -0.05 , 0.04)—although results were somewhat less consistent for the SINS. Lastly, we also investigated, using a mean split, whether the SINS and NPI differ in their threshold for distinguishing narcissists from non-narcissists. The SINS classified a significantly lower number of participants as narcissists (30% of participants scored above the mean on the SINS) than did the NPI (38%), $Z = -5.53$, $p < 0.01$. Notably, when the cut-off was determined simply by using the objective mid-point of each scale, this difference became rather marginal (8% vs. 11%, $Z = 1.65$, $p = 0.09$).

4. Discussion

Using a large and diverse sample of American adults this study evaluated the validity of the Single-Item Narcissism Scale (SINS) developed by Konrath et al. (2014) and extends initial findings in a novel direction. First, we replicate the average correlation between the SINS and the NPI ($r = 0.38$) which is more or less identical to the correlation(s) reported by Konrath et al. (2014). Second, scholars have argued that differentiating narcissism from healthy or “normal” self-esteem is important (Rosenthal & Hooley, 2010; Rosenthal et al., 2011). Accordingly, the SINS exhibited good discriminant validity from common measures of self-esteem—which is also congruent with the original results reported by Konrath et al. (2014).

Further, we included a new “behavioral” measure. As expected, and consistent with prior research (e.g., Campbell et al., 2005), negative (albeit weak) correlations were observed between the two multi-item narcissism scales and support for action on climate change. In contrast, although the coefficient was in the expected direction, the SINS did not correlate significantly with the environmental concern measure, suggesting that as a single-item, it may be less powerful than multi-item measures in detecting lower magnitude relationships between narcissism and other constructs. This observation is also consistent with the conclusions of Konrath et al. (2014).

On the other hand, additional findings offer a more critical perspective. When the correlation between a “global” single-item and its lengthier counterpart is high ($r > 0.70$) this usually indicates that the two measures likely tap into the same latent construct (e.g., see Robins et al., 2001). Yet, the “global” self-evaluative SINS measure correlates only moderately with the 16-item NPI scale. Thus, as suggested by Konrath et al. (2014), it is less clear what aspects of narcissism the SINS taps into. This may be problematic, given that narcissism is widely

understood as a multi-dimensional construct in which different characteristics share different relationships with important dependent variables. Our analysis does offer some new insights. First, two measures that are commonly assumed to measure “grandiosity” (the NPI and NGS) correlated significantly more strongly with each other than with the SINS. Second, the SINS exhibited low to moderate correlations with most of the NPI’s grandiose items and correlated more strongly with other dimensions of the NPI, such as exploitativeness and entitlement. Thus, at the very least, it is questionable whether the SINS specifically taps into grandiose narcissism.

Lastly, our findings show that even although narcissists are likely to admit that they are narcissistic, the SINS measure has a significantly lower self-classification rate than the NPI. Given that the incidence rate of (clinical) narcissism is relatively low in the general population,² an absolute “high vs. low narcissism” midpoint cut-off discriminates more between “extremes” (i.e., the response distribution is highly skewed to the right or low-end). These findings suggest that while “true” narcissists might be willing to admit that they are narcissistic, members of the general public, while perhaps having some narcissistic traits, might be significantly less able to understand or willing to admit to being a narcissist. However, given that there is no “gold standard” for what constitutes non-clinical (i.e., trait) narcissism, it is not clear whether the SINS’s lower classification rate relative to the NPI is indicative of a measurement validity issue.

Overall, although the SINS measure provides a valid global personality assessment (i.e., whether you consider yourself to be a narcissist), it is likely not as precise a measure of trait narcissism as a multi-item scale. Indeed, Konrath et al. (2014) generally advise that longer and established narcissism scales such as the NPI are preferable (especially when researchers are interested in measuring different dimensions of trait narcissism) but that when strained for resources or space, the SINS might be a useful and viable alternative. Results of this study are largely consistent with this assessment.

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² Prevalence is estimated to be around 1% in the general population (American Psychiatric Association, 2013).

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