



Research article

Lives of significance (and purpose and coherence): subclinical narcissism, meaning in life, and subjective well-being

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ABSTRACT

Three studies addressed two research questions. First, does accounting for meaning in life (MIL) wipe out the association between narcissism and other aspects of well-being? Second, among the three facets of MIL (significance, purpose, and coherence), does significance explain the association between narcissism and MIL? All studies measured narcissism and MIL. Study 1 was a re-analysis of cross-sectional data, including measures of subjective well-being (SWB) and self-deceptive enhancement ($N = 415$; Womick et al., 2019). Study 2, $N = 300$, measured the facets of MIL in a sample of adults. Study 3, $N = 295$, included MIL facets and self-esteem in a sample of students. In Studies 1 and 3, MIL fully mediated the relationship between narcissism and SWB. SWB did not fully mediate the association between narcissism and MIL. Studies 2 and 3 showed that all MIL facets accounted for the association between narcissism and MIL. Self-esteem partially mediated the association between narcissism and MIL, but self-esteem and MIL, both, independently wiped out the link between narcissism and SWB. Narcissism contributes to SWB through MIL, and the paths from narcissism to SWB through MIL and self-esteem are independent. Implications are discussed.

1. Introduction

Narcissism is reflected in grandiose self-views, dominance, entitlement (Campbell and Foster, 2007; Corry et al., 2008), engagement in self-promotion, and exploiting others (Emmons, 1987; Rhodewalt and Morf, 2005; Ackerman et al., 2019). Among the Dark Tetrad personality traits (narcissism, Machiavellianism, psychopathy, sadism), narcissism is unique in its positive association with psychological well-being (in nonclinical samples; Emmons, 1987; Morf and Rhodewalt, 1993; Womick et al., 2019a; Zuckerman & O'Loughlin, 2009). Research on the possibility that the association between non-clinical narcissism and psychological functioning might be explained by other aspects of well-being has focused (understandably) on self-esteem. The association between narcissism and well-being is explained by self-esteem (Sedikides et al., 2004). However, aspects of healthy psychological functioning, beyond self-esteem, might also play a role in the association between narcissism and well-being. The present studies tested the prediction that accounting for meaning in life would wipe out the association between narcissism and subjective well-being. In addition, we probed whether facets of the experience of meaning (particularly significance) might eliminate the link between narcissism and meaning in life. To begin, we briefly review the rationale for our predictions.

1.1. Models of narcissism

Theoretical perspectives on the structure of “normal,” or sub-clinical narcissism typically propose multiple components. Narcissism is often decomposed into grandiose and vulnerable narcissism (see Ackerman et al., 2019, for a review), which are distinguished by motivation, personality traits, and unique outcomes. Grandiose narcissism involves approach motivation, extraversion, higher self-esteem, and lower psychological distress (Mota et al., 2019; Weiss and Miller, 2018; Hart et al., 2019). In contrast, vulnerable narcissism is characterized by avoidance motivation, neuroticism, and is negatively linked to well-being (Ackerman et al., 2019; Weiss and Miller, 2018; Hart et al., 2019). Vulnerable narcissism is the type of narcissism more commonly observed in clinical settings (e.g., Morf et al., 2017). Other similar models exist, for instance decomposing narcissism into agentic/admiration and antagonistic/rivalry components (see Lecklet et al., 2018).

The Agency-Communion Model of Narcissism proposes that the behavior of narcissists is driven by motives for grandiosity, esteem, entitlement, and power. People high on narcissism may satisfy such motives either through agentic or communal means (Gebauer et al., 2012). People high on agentic narcissism satisfy these motives by inflating evaluations of agentic characteristics, such as competence and

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uniqueness. Those high on communal narcissism satisfy these same motives by inflating their perceptions of communal characteristics, such as warmth and agreeableness. While agentic and communal narcissism may be driven by similar motives, they are distinct. Genetic influences on agentic and communal narcissism share some overlap, but are largely independent (Luo et al., 2014). Communal narcissism is only modestly related to the Narcissistic Personality Inventory ($r(1,971) = .27$, see Gebauer et al., 2012, Study 2, p. 862). Thus, agentic narcissism fits with typical conceptualizations of narcissism, and the Dark Tetrad personality framework, whereas communal narcissism does not. Finally, although both are positively related to self-esteem (Mota et al., 2019), agentic narcissism shares a stronger link with well-being than communal narcissism (Zemojtel-Piotrowska et al., 2017).

Because we were interested in the relationship between narcissism and well-being and the agentic/grandiose component of general narcissism (which we will subsequently refer to simply as narcissism) is most relevant to this link, we focused on it (rather than vulnerable, antagonistic, or communal narcissism) in the present research.

1.2. Narcissism, meaning in life, and subjective well-being

1.2.1. Meaning in life

King and colleagues (2006) asserted, “Lives may be experienced as meaningful when they are felt to have a significance beyond the trivial or momentary, to have purpose, or to have a coherence that transcends chaos” (p. 180). This definition implies that the global experience of meaning in life emerges when a person feels their life has profound or lasting importance (existential significance), when they feel their behavior is goal-directed (purpose), or when their life makes sense (coherence). Narcissism may be particularly likely to facilitate these feelings. The definition of narcissism implies that narcissists may find it difficult to imagine that their lives are *not* meaningful.

Indeed, narcissism is positively related to meaning in life (Womick et al., 2019a). There are at least three ways to view this link. First, narcissists may endorse high meaning in life because they are likely to believe positive things about themselves (Park and Colvin, 2014), engaging in self-deceptive enhancement (Jones and Paulhus, 2017). Second, the relationship between narcissism and meaning in life may reflect shared variance with self-esteem (Sedikides et al., 2004). A third possibility is also reasonable—that narcissism and meaning in life share a relationship independent of self-esteem and self-deception. We test all three of these possibilities in the current research, expecting to find support for the third, that the link between meaning in life and narcissism is not due to self-deceptive enhancement or overlap with self-esteem.

1.2.2. Subjective well-being

Subjective well-being is defined as having an affective component (the presence of positive mood, and the absence of negative mood), and a cognitive evaluation component (judgements of life satisfaction) (Diener, 1984). We expected to find evidence that the link between narcissism and subjective well-being would be accounted for by meaning in life. Meaning in life does not share the kind of obvious link to narcissism that characterizes its relationship with self-esteem. Nevertheless, meaning in life may be relevant to narcissism, in a way similar to the relevance of self-esteem (Sedikides et al., 2004). For instance, narcissism provides a central organizing principle for one's hedonic experiences and cognitive evaluations of life—the self. Through downward social comparison and bias in self-relevant cognition (e.g., self-serving bias, self-enhancement, derogating those who provide negative feedback), narcissists may view their lives as full of meaning.

Additionally, past theory and research suggests that meaning in life may serve as a kind of hub that influences the relevance of other characteristics to general well-being (McKnight and Kashdan, 2009). For example, the relationships of religiosity (Steger and Frazier, 2005) and right-wing authoritarianism (Womick et al., 2019b) with life satisfaction are mediated by meaning in life. Generally, meaning in life may be the

mechanism through which individual differences contribute to well-being. Thus, accounting for meaning in life might wipe out the association between narcissism and well-being because it serves as a mediator for the many ways that experiences, in general, influence well-being.

People high on narcissism may be especially likely to strongly endorse that the idea that one's life has had profound, lasting impact on the world (Schaw, 2000). The experience of meaning in life certainly is real, but it is also subjective and can arise from many sources. While perceiving one's life to have a profound and lasting significance may result from grandiose self-perceptions, we do not expect that the narcissistic source of such perceptions would rob them of their meaningfulness to the person. Supporting this idea, although people high on narcissism tend to value more extrinsic goals, this extrinsic orientation does not rob the capacity of their goals to enhance well-being (Abeyta et al., 2017). Thus, we expected the significance facet of meaning might be most central to the link between narcissism and global meaning in life, as we review below.

1.3. Narcissism and the facets of meaning

The global experience of meaning in life involves three facets, existential significance (perceiving that one's life and contributions matter), purpose (having one's life directed by valued goals), and coherence (feeling that the world makes sense) (Heintzelman and King, 2014; Martela and Steger, 2016). All three facets of meaning have been shown to contribute to global perceptions of meaning in life (George and Park, 2016; Krause and Hayward, 2014). However, there remain ambiguities regarding exactly how these facets contribute to global meaning in life. Recent research showed that global perceptions of life's meaningfulness were most strongly predicted by existential significance (Costin and Vignoles, 2019). These results suggest that global meaning in life might be best represented by existential significance alone, rather than a tripartite model. Additionally, coherence might be best conceptualized as an outcome, rather than a predictor of meaning in life (Costin and Vignoles, 2019), leaving the question open of whether narcissism would contribute to global perceptions of meaning in life through this facet.

How might narcissism relate to each of the facets of meaning? It hardly seems necessary to argue for the relevance of narcissism to feelings of existential significance. These constructs share obvious conceptual overlap. For instance, someone high on narcissism is likely to strongly endorse items such as, “Even considering how big the universe is, I can say that my life matters.” If the question is whether one's life matters and will matter long after one's death, it is very likely that narcissists would say yes.

The other two facets of global meaning in life may be less obviously related to narcissism, but research suggests that those high in narcissism may also experience a higher sense of purpose and coherence. For example, narcissism is positively related to agentic personality variables (Campbell et al., 2002; Paulhus and John, 1998), linking it to a sense of purpose. In addition, among people high on narcissism, relatively greater extrinsic vs. intrinsic values predict higher self-reports of global meaning in life (Abeyta et al., 2017), suggesting that the ways narcissists pursue their goals does not strip those goals of the capacity to imbue life with meaning.

Finally, with regard to coherence, narcissists possess a highly salient organizing principle of life—the self. Research shows that narcissism predicts self-related social and cognitive biases and attributional styles that relate to enhancing and protecting the self (e.g., Campbell et al., 2002; Morf and Rhodewalt, 1993; Sedikides et al., 2002). Such attributional styles and self-focus may help the person make sense of their experience, aiding in the perception that the world is organized, patterned, and predictable. For a person high in narcissism, events and experiences have ready meaning via their association to the greatest person on Earth, oneself.

There are conceptual reasons to expect narcissism to relate positively to each of these three facets of meaning, and to contribute to global

meaning in life through all three of the facets. We tested this possibility in the current research. However, recent research using validated measures of the facets of meaning has shown that dispositional variables (e.g., religiosity) contribute to global meaning in life through the existential significance facet, rather than the purpose or coherence facet (Womick et al., 2019b). Based on these results, and the strong conceptual overlap between narcissism and existential significance, we expected that the significance facet, rather than purpose or coherence, would be the most relevant to the link between narcissism and global meaning in life.

1.4. Overview and predictions

We addressed two research questions. Studies 1 and 2 independently addressed distinct research questions, and Study 3 replicated the findings from both Studies 1 and 2. First, Study 1 was designed to address the question, does meaning in life account for the link between narcissism and well-being? Second, Study 2 tested whether existential significance crucial to the link between narcissism and global meaning in life.

Study 3 addressed both questions, allowing us to replicate and extend Studies 1 and 2. We predicted that accounting for meaning in life would eliminate the statistically significant association between narcissism and subjective well-being (and that accounting for subjective well-being would not wipe out the association between narcissism and meaning in life). We also expected that existential significance would be the most important facet of meaning in life to this link, explaining the association between narcissism and global meaning. Study 3 included a measure of self-esteem to probe whether it eliminated the association between narcissism and meaning in life. All studies reported below were conducted in an ethical manner, and approved by the University of Missouri, Columbia Institutional Review Board.

In all studies, we constructed mediation models (using the PROCESS macro for SPSS, Hayes, 2016) to test these predictions. We acknowledge that mediation implies causation. The methodology of present studies was not experimental, and thus cannot address causation. However, in line with the approach recommended by Grosz et al. (in press), we employed mediation to test the conceptual models necessary to address whether narcissism contributes to subjective well-being (SWB) through meaning in life, and the relative centrality of each facet of meaning to the link between narcissism and global meaning in life.

2. Study 1: Does meaning in life mediate the association between narcissism and SWB?

Study 1 was an exploratory initial test of our predictions, examining whether meaning in life mediated the relationship between narcissism and subjective well-being. In addition, this dataset allowed us to test for the influence of self-deceptive enhancement in the associations among narcissism, meaning in life, and subjective well-being. For this Study, we re-analyzed previously published data (Womick et al., 2019a; Study 2).

2.1. Method

2.1.1. Participants and procedures

Participants ($N = 415$) completed an online survey via Amazon Mechanical Turk (MTurk). MTurk is commonly used for the administration of psychological surveys, and provides a more representative sample than undergraduate populations (Buhrmester et al., 2011; Hauser and Schwarz, 2016; Paolacci and Chandler, 2014; Stewart et al., 2015). Full description of the sample and descriptive statistics for the measures can be found in the previous article (Womick et al., 2019a, Study 2). To measure global meaning in life, participants completed the 5-item Presence of Meaning subscale of the Meaning in Life Questionnaire (MLQ-P; Steger et al., 2006). The Meaning in Life Questionnaire also contains a 5-item subscale measuring search for meaning in life. Searching for meaning was not relevant to our predictions, and was not included in any analyses.

Participants also completed the Satisfaction with Life Scale (SWLS; Diener et al., 1985). For positive and negative affect, participants rated how much they felt, cheerful, enjoyment/fun, happy, pleased, $M(SD) = 3.91(1.68)$, $\alpha = .93$, and how much they felt anxious, frustrated, angry, and sad, $M(SD) = 2.02(1.22)$, $\alpha = .84$, for PA and NA, respectively. As is standard in well-being research, we created a measure of subjective well-being (SWB), by standardizing the measures (SWLS, PA, NA), reversing scores for NA, and aggregating across the scales (Busseri and Sadava, 2011; Sheldon and Elliot, 1999; Sheldon and Kasser, 2001).

Narcissism was measured using the 40-item Narcissistic Personality Index (NPI; Raskin and Hall, 1981). This measure was ideal because the items are most relevant to grandiose narcissism, rather than vulnerable or communal narcissism (Miller et al., 2014). One major criticism of the NPI is that items emphasize adaptive elements of narcissism over pathological elements. However, this was a strength for using the scale in the present study because we were interested in sub-clinical narcissism, rather than Narcissistic Personality Disorder. Participants also completed the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1991), which measures self-deceptive enhancement and impression management.

2.2. Results

Correlations among measures are shown in Table 1. Narcissism was positively related to SWB, and meaning in life. With regard to the BIDR scales and in keeping with past research (John and Robins, 1994; Paulhus, 1998), narcissism was positively related to self-deceptive enhancement, but was negatively related to impression management. Both Self-deceptive enhancement and impression management were positively correlated with SWB, and meaning in life. Because self-deceptive enhancement was positively related to the variables of interest, it could potentially explain their associations. However, because impression management was negatively related to narcissism, it could not be responsible for the positive association between narcissism and well-being. Thus, we included the self-deceptive enhancement but not the impression management scale in multivariate analyses.

In order to test our central prediction, that narcissism contributes to SWB through meaning in life, we computed a mediational model using the PROCESS Macro for SPSS, v22.16.3 (Model 4, Hayes, 2016). In this model, we treated SWB as the outcome, narcissism as the predictor, and meaning in life as the mediator. Without controlling for meaning in life, narcissism significantly predicted SWB, $B(SE) = 0.02(0.004)$, $\beta = .21$, $p < .001$. With meaning in life in the model, narcissism no longer predicted SWB, $B(SE) = 0.01(0.003)$, $p = .15$, suggesting full mediation. For the path from narcissism to meaning in life, $B(SE) = 0.40(0.01)$, $p < .001$. For the path from meaning in life to SWB, $B(SE) = 0.31(0.02)$, $p < .001$. In support of our prediction, the indirect effect, representing that path from narcissism to SWB through MIL was significant, $0.01(0.002)$, bootstrapped 95% Confidence Interval (CI) = [.008, 0.02].

To test the possibility that these findings are entirely due to self-deceptive enhancement, we computed the above model, including self-deceptive enhancement as a control variable. Both self-deceptive enhancement, $B(SE) = 0.04(0.01)$, $p < .001$, and meaning in life significantly predicted SWB, $B(SE) = 0.27(0.02)$, $p < .001$. Controlling for both variables, narcissism no longer predicted SWB, $B(SE) = 0.01(0.004)$, $p = .11$. The 95% CI for the indirect effect of narcissism on SWB through self-deceptive enhancement included 0, [-0.0006, 0.0028], suggesting self-deceptive enhancement does not contribute to the link between narcissism and SWB. In contrast, the indirect effect representing the path from narcissism to SWB through meaning in life was significant, $0.01(0.002)$, [0.007, 0.02]. Providing further support for our conceptual model, controlling for SWB did not wipe out the significant relationship between narcissism and meaning in life (see the Supplement, p. 2).

Table 1. Correlations among measures, Study 1.

	SWB	Narcissism	Self-Deceptive Enhancement	Impression Management
Meaning in Life	.61*	.24*	.40*	.20*
Subjective Well-being		.21*	.43*	.20*
Narcissism			.29*	-.18*
Self-Deceptive Enhancement				.49*

Note. $N = 393$. * $p < .001$. SWB = subjective well-being.

2.3. Brief discussion of Study 1

As predicted, accounting for meaning in life fully eliminated the association between narcissism and SWB. Importantly, SWB did not fully account for the relationship between narcissism and meaning in life. This pattern of results was not due to self-deceptive enhancement. These results support our contention that meaning in life plays a role in the well-established link between narcissism and well-being. We next conducted Study 2, using a new measure of narcissism, to test whether existential significance was more important to the link between narcissism and global meaning in life than purpose or coherence.

3. Study 2: Is existential significance the key to the association between narcissism and meaning in life?

Study 2 addressed our second research question, does the link between narcissism and meaning in life rest on the facet of existential significance? Recall that existential significance, purpose, and coherence contribute to the global experience of meaning in life. Participants completed separate measures of narcissism, global meaning in life, and meaning in life facets. We expected to find that existential significance was more relevant to the link between narcissism and global meaning in life than purpose or coherence. We tested this prediction by constructing mediation models.

3.1. Method

3.1.1. Participants and procedures

We recruited 300 adults on Amazon Mechanical Turk. The sample was 58.6% women, 76% White/Caucasian, 7.3% Black/African American, 7.3% Asian, 4.7% Latinx, 1.3% Native American, and 3% "other." Ages ranged from 18 to 87, $M(SD) = 36.70(13.10)$. Participants completed measures online for a small payment.

All items were rated on scales from 1 (low endorsement) to 7 (high endorsement). To measure narcissism, participant rated 9-items from the Short Dark Triad Measure (e.g., "People see me as a natural leader; "I hate being the center of attention") (Jones and Paulhus, 2014), $M(SD) = 3.45(0.96)$, $\alpha = .80$. This measure of narcissism was suitable to our purposes as the items are intended to measure narcissism at the sub-clinical level, and are conceptually relevant to grandiose narcissism.

Participants completed the same measure of global meaning in life, the MLQ-P, as in Study 1, $M(SD) = 4.74(1.42)$, $\alpha = .93$. When these data were collected, there were no established measures of the facets of meaning in life available. Participants rated a total of 11 items for the facets. An exploratory factor analysis using principal components extraction and VARIMAX rotation identified 3 factors (eigenvalues = 4.94, 1.23, and 0.92) accounting for 79% of the variance (note: For interested readers, we also tested promax, quartimax, equamax, and oblimin rotations. Each showed the same factor structure, with the same items loading onto the same 3 factors. The VARIMAX had the best simple structure, and is reported here). Two items were dropped to achieve simple structure, with all items loading on their factor $>.70$. All cross loading were less than .30 except, "I have sense of direction" loaded on both the purpose (.79) and coherence factor (.38). We assigned this item to the purpose factor. To create factor scores, we simply averaged across

items for each factor. For existential significance, the items were, "I think that I will be remembered for a long time after I die;" "I feel as though my contributions will exist after I die;" and "I feel as though I have made a difference to many people," $M(SD) = 3.84(1.50)$, $\alpha = .88$. For purpose, the items were, "I am persistent in achieving my goals;" "In life, I have goals and aims;" and "I have a sense of direction," $M(SD) = 5.18(1.20)$, $\alpha = .87$. Finally, for coherence, the items were, "I have a framework that allows me understand or make sense of my life;" "I have a philosophy of life that gives my existence meaning;" and "I have a sense that the parts of my life fit together into a unified pattern," $M(SD) = 4.83(1.24)$, $\alpha = .87$.

3.2. Results

Table 2 shows correlations among measures. All three facets correlated significantly with global meaning in life. Narcissism was positively correlated with global meaning in life and the facets of meaning. Narcissism was more strongly related to existential significance than coherence, $z = 7.92$, $p < .001$; the other relationships did not significantly differ.

As an initial test of the relevance of each facet of meaning to narcissism, we calculated partial correlations between narcissism and the facets of meaning, controlling for each. Controlling for purpose, narcissism significantly correlated with existential significance (partial $r = .46$, $p < .001$) but was unrelated to coherence (partial $r = .01$, $p = .90$). Controlling for coherence, narcissism remained significantly correlated with existential significance (partial $r = .50$, $p < .001$) and purpose (partial $r = .17$, $p = .004$). Finally, controlling for existential significance wiped out the positive associations of narcissism with purpose (partial $r = -.06$, $p = .18$) and coherence (partial $r = -.15$, $p = .01$). These initial findings suggest that, as predicted, existential significance is a crucial aspect of the link between narcissism and meaning, at the facet level.

We next tested our central prediction, that existential significance would be more important than purpose or coherence to the link between narcissism and global meaning in life. As in Study 1, we computed a mediation model, treating global meaning in life as the outcome, narcissism as the predictor, and the facets of meaning as parallel mediators (Model 4, Hayes, 2016). Figure 1 shows that all three facets of meaning helped to fully account for the association between narcissism and meaning in life. The path from narcissism to existential significance was significantly stronger than the paths to purpose, $z = 4.70$, $p < .001$, and to coherence, $z = 5.46$, $p < .001$. The other paths did not significantly differ. These results suggest that narcissism may be especially relevant to facilitating a sense of existential significance.

Nevertheless, these results indicate the association between narcissism and global meaning does not appear to be exclusively about existential significance. The indirect effects for the link between narcissism and meaning in life through each facet [95% CI bootstrapped with 10,000 resamplings], were as follows, for existential significance: 0.12(0.05), [0.03, 0.22]; for purpose: 0.11(0.04), [0.04, 0.20]; and for coherence: 0.08(0.04), [0.01, 0.17]. In contrast to our prediction, none of the 95% confidence intervals included zero, indicating narcissism contributes to global meaning in life through all three of the facets. Interestingly, in this model, the path from existential significance to meaning in life (after adjusting for narcissism) was significantly weaker than the

Table 2. Correlations among measures, Study 2.

	Sign	Pur	Coh	Nar
Global Meaning	.54**	.65**	.75**	.19**
Significance		.53**	.50**	.49**
Purpose			.61**	.22**
Coherence				.14*

Note. $N = 301$; ** $p \leq .002$. * $p \leq .017$. = Sign = significance; Pur = purpose; Coh = coherence; nar = narcissism.

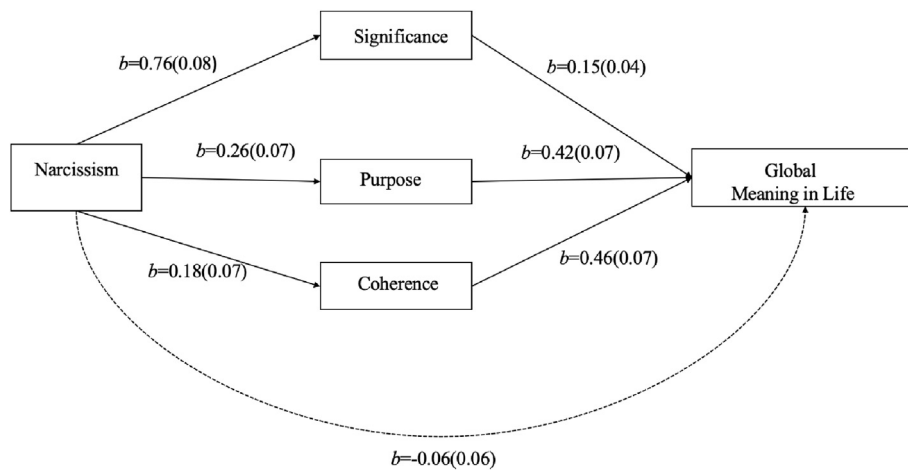


Figure 1. Mediation model predicting meaning in life from Ad Hoc facet measures and narcissism, Study 2. Note. All solid paths are significant, $p < .001$.

paths for and purpose, $z = 3.35, p < .001$, and coherence, $z = 3.84, p < .001$, suggesting the relatively strong link between narcissism and existential significance.

3.3. Brief discussion of Study 2

Study 2 provided initial evidence for the centrality of existential significance to the link between narcissism and global meaning in life—including the results of partial correlations among the facets, and the stronger contribution of narcissism to existential significance relative to the other facets in the mediational model. However, multivariate analyses suggest that all three facets of meaning help to account for the association between narcissism and global meaning in life. One weakness of this study was the use of ad hoc measures for the facets of meaning in life. In order to address this limitation, we conducted Study 3, using validated measures of these facets.

4. Study 3

Study 3 addressed both of our central research questions in a sample of undergraduates, who completed measures of narcissism, meaning facets, global meaning in life and well-being. Study 3 was designed to replicate Studies 1 and 2, and improves on the previous studies in important ways. First, Study 3 used well-validated measures of the meaning in life facets. Second, we included a measure of self-esteem to examine whether the associations identified for narcissism are reflections of this less extreme experience of self-regard.

4.1. Method

4.1.1. Participants

Introduction to Personality students ($N = 295$) completed online assessments required for homework in the course. Students completed a variety of scales and were given feedback on their personalities. Students were asked to consent to having their responses used as research

data. Course enrollment was 300, indicating that over 98% consented. Students were not given feedback about their scores on any of the variables included here, except well-being. Feedback on these variables was given only after all data were collected. The sample was 25.8% male, 72.5% female, 0.7% transgender, and 1% indicated “other;” 80.7% White/Caucasian, 9.5% Black/African American, 4.7% Asian, 2.0% Hispanic/Latino, 3.1% “other.” Ages ranged from 18 to 39, $M(SD)=20.07(2.05)$.

4.1.2. Measures

Ratings were made on scales from 1 (low endorsement) to 7 (high endorsement). As in previous studies, participants completed the same measure of global meaning in life, the MLQ-P, $M(SD) = 4.71(1.36)$, $\alpha = .92$, and SWLS, $M(SD) = 4.67(1.22)$, $\alpha = .85$. For affect, participants rated how much they were feeling joyful, enthusiastic, happy, satisfied, calm, relaxed for PA, $M(SD) = 4.69(1.24)$, $\alpha = .88$; and nervous, bored, afraid, anxious sad and worried for NA, $M(SD) = 3.23(1.35)$, $\alpha = .84$, (Diener et al., 1995). We used the same procedure as previous studies to compute SWB. We also administered the same measure of narcissism as in Study 2, $M(SD) = 4.15(0.86)$, $\alpha = .71$. Participants also completed Rosenberg Self-Esteem Scale, $M(SD) = 4.90(1.11)$, $\alpha = .90$, (Rosenberg, 1965).

Additionally, for the facets of meaning in life, participants completed two well-validated measures. First, the Tripartite Meaning Scale (TMS, Costin and Vignoles, 2019), has four 4-item subscales measuring global meaning in life, $M(SD) = 5.63(1.22)$, $\alpha = .87$, (e.g., “My life as a whole has meaning”); existential significance, $M(SD) = 5.12(1.43)$, $\alpha = .90$, (e.g., “Even considering how big the universe is, I can say that my life matters”); purpose, $M(SD) = 5.37(1.09)$, $\alpha = .82$, (e.g., “I have a good sense of what I am trying to accomplish in life”); and, coherence, $M(SD) = 4.78(1.20)$, $\alpha = .80$, (e.g., “I can make sense of the things that happen in my life”). They also completed the Multidimensional Existential Meaning Scale (MEMS, George and Park, 2016), which measures existential significance, $M(SD) = 4.75(1.49)$, $\alpha = .90$, (“Whether my life ever existed matters even in the grand scheme of the universe”); purpose, $M(SD) = 5.72(1.03)$, $\alpha = .88$, (“I have certain life goals that compel me to

keep going; ”); and, coherence, $M(SD) = 4.88(1.36)$, $\alpha = .90$, (“Looking at my life as a whole, things seem clear to me”).

For multivariate analyses, to simplify analyses, we created four meaning in life composites (note that the pattern of results was consistent regardless of whether we used these composites or their constituent variables). First, we standardized and averaged the two global meaning in life measures (from the TMS measure, and the MLQ-P), $r = .64$, $p < .001$. We aggregated measures of facets as well (from the TMS and MEMS), creating composite measures of existential significance, $r = .73$, $p < .001$, purpose, $r = .63$, $p < .001$, and coherence, $r = .62$, $p < .001$.

4.2. Results and discussion

Table 3 shows the correlations among measures. As can be seen, narcissism was positively associated with all facets of meaning, global meaning in life, SWB, and self-esteem. In contrast to Study 2, narcissism was similarly correlated with all three facets of meaning in life.

4.2.1. Does meaning in life mediate the association between narcissism and well-being?

We first sought to replicate the results of Study 1 by computing the same model to test the prediction that meaning in life would mediate the relationship between narcissism and subjective well-being. Table 4 shows the results of this model (Model 4, Hayes, 2016), treating SWB as the outcome, narcissism as the predictor, and global meaning in life as the mediator. Replicating Study 1, meaning in life fully mediated the association between narcissism and SWB. Also as in Study 1, and providing further support for our prediction, Table 5 shows that these results do not emerge when testing models predicting meaning in life from narcissism and treating SWB (or its components) as the mediator. Shown in the third row of Table 5, the link between narcissism and meaning in life remained statistically significant in every case.

4.2.2. Self-esteem

Is the link between narcissism and meaning in life simply a reflection of self-esteem? To test the possibility that the relationship between meaning in life and narcissism is entirely due to self-esteem, we computed another mediation model. In this model, narcissism was the predictor, meaning in life was the outcome, and self-esteem was the mediator. Controlling for the link between self-esteem and meaning in life, $B(SE) = 0.50(0.04)$, $p < .001$, narcissism continued to significantly predict meaning in life, $B(SE) = 0.14(0.05)$, $p = .007$. The indirect effect of narcissism on meaning in life through self-esteem = $0.28(0.04)$, $[0.21, 0.36]$. Thus, the link between narcissism and meaning in life is independent of self-esteem.

As a final test of the independence and relative importance of narcissism with self-esteem and meaning in life, we computed a parallel mediation model. This model tested whether the contribution of narcissism to subjective well-being through self-esteem and through meaning in life is independent. For this model, we entered SWB as the outcome, narcissism as the predictor, and entered both self-esteem and meaning in life as parallel mediators. Results showed that both self-esteem, $B(SE) = 1.15(0.13)$, $p < .001$, and meaning in life, $B(SE) = 0.69(0.16)$, $p < .001$,

significantly and independently predicted SWB. Narcissism no longer did so, $B(SE) = -0.17(0.14)$, $p = .22$. Indirect effects were significant for both self-esteem, $0.64(0.11)$, $[0.44, 0.88]$, and meaning in life, $0.28(0.10)$, $[0.12, 0.51]$. Thus, although self-esteem is surely involved in the link between narcissism and well-being, meaning in life also independently accounts for part of this association.

4.2.3. Does existential significance mediate the association between narcissism and meaning in life?

We next calculated partial correlations to examine the relative importance of the facets of meaning to the link between narcissism and global meaning in life, as in Study 2. These tests allowed us to determine if, as we expected, narcissism was more relevant to the experience of existential significance, rather than purpose or coherence. Controlling for purpose, narcissism significantly correlated with existential significance, partial $r = .18$, $p = .004$) but was unrelated to coherence (partial $r = .10$, $p = .11$). Controlling for coherence, narcissism remained significantly correlated with existential significance (partial $r = .22$, $p < .001$) and purpose (partial $r = .24$, $p < .001$). Finally, controlling for existential significance, unlike Study 2, narcissism remained positively related to coherence (partial $r = .24$, $p < .001$) and purpose (partial $r = .16$, $p = .008$). Thus, it does not appear that existential significance is the sole experience responsible for the relationship between narcissism and the facets of meaning in life.

To test our central prediction, that narcissism would contribute to global meaning in life through existential significance, rather than purpose or coherence, we computed the same mediation model as in Study 2. For this model, we treated global meaning in life as the outcome, and narcissism as the predictor, with existential significance, purpose, and coherence as parallel mediators (Model 4, Hayes, 2016), as in Study 2. As Figure 2 shows, narcissism related to all three facets of meaning. The regression weights did not differ significantly. Replicating Study 2, all three facets significantly predicted meaning in life and the facets fully mediated the relationship between narcissism and global meaning in life. The indirect effects representing the path from narcissism to global meaning in life through each of the facets were as follows: For existential significance, $0.18(0.03)$, $[0.13, 0.25]$; for purpose, $0.12(0.03)$, $[0.06, 0.19]$; and, for coherence, $0.11(0.03)$, $[0.06, 0.17]$.

Including self-esteem as a fourth mediator showed that all of the facets continued to predict meaning in life (all p 's $< .001$), even as self-esteem served as a significant predictor, $B(SE) = 0.13(0.03)$, $p < .001$. Together with the results of Study 2, these findings indicate that, contrary to our expectations, rather than being primarily about existential significance, narcissism is associated with heightened meaning in life via all three facets of meaning in life. Further, these links are independent of self-esteem.

4.2.3.1. Testing an alternative possibility. In Studies 1–3, the research questions were designed to address “normal” narcissism. The measures we employed capture subclinical narcissism. Still, it is possible that those with very high scores on these measures might possess clinical levels of narcissism. Research decomposing general narcissism into grandiose and vulnerable components speaks against this possibility (see Weiss and

Table 3. Correlations among measures, Study 3.

	Sign	Pur	Coh	SWB	SE	Nar
Global Meaning	.79*	.75*	.73*	.57*	.66*	.40*
Significance		.63*	.63*	.39*	.57*	.40*
Purpose			.71*	.44*	.57*	.43*
Coherence				.61*	.63*	.37*
Subjective Well-being					.67*	.27*
Self-Esteem						.43*

Note. $N = 295$; * $p \leq .001$. = Sign = significance; Pur = purpose; Coh = coherence; SWB = subjective well-being, SE = self-esteem; nar = narcissism.

Table 4. Mediation models predicting subjective well-being from narcissism and meaning in life, Study 3.

	Subjective Well-Being
Narcissism → Subjective Well-being <i>B(SE)</i>	0.75(.17)*
Meaning in Life → Subjective Well-being <i>B(SE)</i>	1.51(0.15)*
Narcissism → SWB controlling for meaning in life <i>B(SE)</i>	0.12(0.06)
Indirect Effect of Narcissism Through meaning in life <i>B(SE)</i> [95% CI]	0.63(0.12) [0.39,0.90]

Note. *N* = 295, **p* < .001; The column presents a mediational model using narcissism as the predictor variable, the subjective well-being as the outcome, and global meaning in life as the mediator. Values are path coefficients (unstandardized regression weight, standard error). For Narcissism to meaning in life the path coefficient is 0.42(.06)*.

Miller, 2018; Morf et al., 2017). Nonetheless, inspired by a reviewer, we determined to test this possibility using our data. It may be possible that those extremely high on narcissism would experience their lives as less meaningful. Results supporting this prediction would show an inverted U shaped curve for meaning in life across levels of narcissism. Using data from Studies 1–3, we tested for quadratic effects of narcissism on global meaning in life and its facets. In Study 1, this hypothesis was not supported, $\beta = -.03, p = .65$.

In Study 2, we observed a significant quadratic effect of narcissism on global meaning in life (main effect, $\beta = .18, p < .001$, quadratic effect of narcissism, $\beta = .18, p = .002$). However, as shown in Figure 3 (top panel) meaning in life was slightly higher at low levels of narcissism, and there was an otherwise positive relationship between narcissism and meaning in life that became even stronger at high levels of narcissism. We also observed significant quadratic effects of narcissism on each of the facets

of meaning (excluding existential significance), following the same pattern as that observed for global meaning in life: For existential significance, main effect, $\beta = .49, p < .001$, quadratic effect of narcissism, $\beta = .07, p = .18$; for purpose, main effect, $\beta = .22, p < .001$, quadratic effect of narcissism, $\beta = .15, p = .008$, and for coherence, main effect, $\beta = .14, p = .02$, quadratic effect of narcissism, $\beta = .10, p = .001$. Thus, Study 2 fails to support the idea that high levels of narcissism are reflecting clinical narcissism, or are detrimental to meaning in life.

In Study 3, quadratic effects were significant for global meaning in life (main effect of narcissism $\beta = .39, p < .001$, quadratic effect of narcissism, $\beta = -.12, p = .04$), and existential significance (main effect of narcissism $\beta = .38, p < .001$, quadratic effect of narcissism, $\beta = -.12, p = .031$). They did not reach statistical significance for purpose and coherence, both *p*'s > .14. Again, these effects did not conform to a pattern consistent with an inverted U. Instead, as can be seen in Figure 3 (bottom panel), while the positive relationship between narcissism and meaning in life begins to taper off at extremely high levels of narcissism, we did not observe that the relationship became negative at any point. Overall, these findings are consistent with the idea that our measures capture subclinical narcissism, and fail to support the hypothesis that high levels of narcissism predict lower meaning in life.

5. General Discussion

These studies tested two predictions: First, that meaning in life would mediate the positive link between narcissism and well-being (Study 1 and Study 3); and, second, that (compared to purpose and coherence) existential significance would be more crucial to the link between narcissism and global meaning in life (Study 2 and Study 3). Our first prediction was supported in non-college adults and was replicated in a sample of students. Further, these results were not due to self-deceptive enhancement or self-esteem. In contrast, our second prediction was not supported.

Table 5. Mediation models predicting meaning in life from narcissism controlling for subjective well-being variables, Study 3.

	Mediators			
	Life Satisfaction	PA	NA	SWB
Narcissism → Mediator	0.34(.08)*	0.41(0.08)*	-0.20(0.09)†	0.75(0.16)*
Mediator → MIL	0.34(0.04)*	0.33(0.04)*	-0.21(0.04)*	0.19(0.02)*
Narcissism → MIL controlling for Mediator	0.30(0.05)*	0.29(0.05)*	0.38(0.06)*	0.28(0.05)*
Indirect Effect of Narcissism Through Mediator, 95% CI	0.12(0.03) [0.20, 0.41]	0.13(0.03) [0.07,0.20]	0.04(0.02) [0.00,0.09]	0.14(0.04) [0.08,0.21]

Note. **p* < .008; †*p* = .035. MIL = meaning in life. Each column presents a separate mediational model treating narcissism as the predictor variable, the meaning in life as the outcome variable, and each well-being variable (life satisfaction, PA, NA, SWB) as the mediator. Values are path coefficients (unstandardized regression weight, standard error).

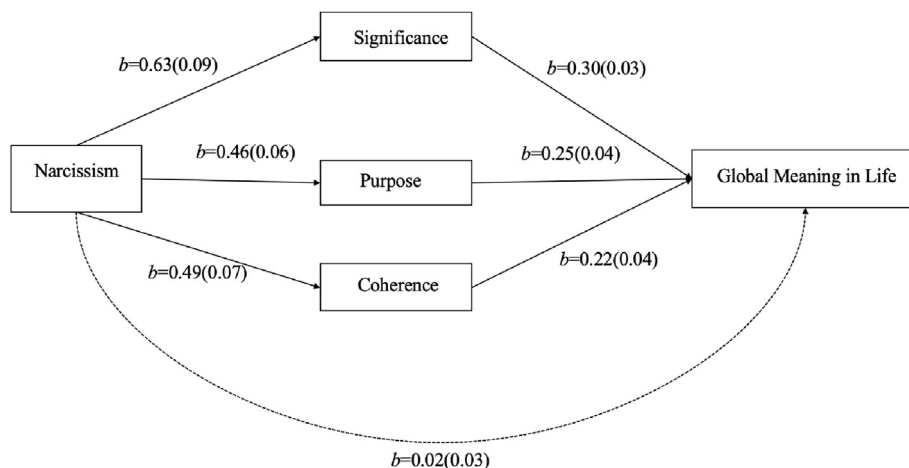


Figure 2. Predicting Global Meaning in Life from Facets of Meaning and Narcissism, Study 3. Note. All solid paths are significant, *p* < .001.

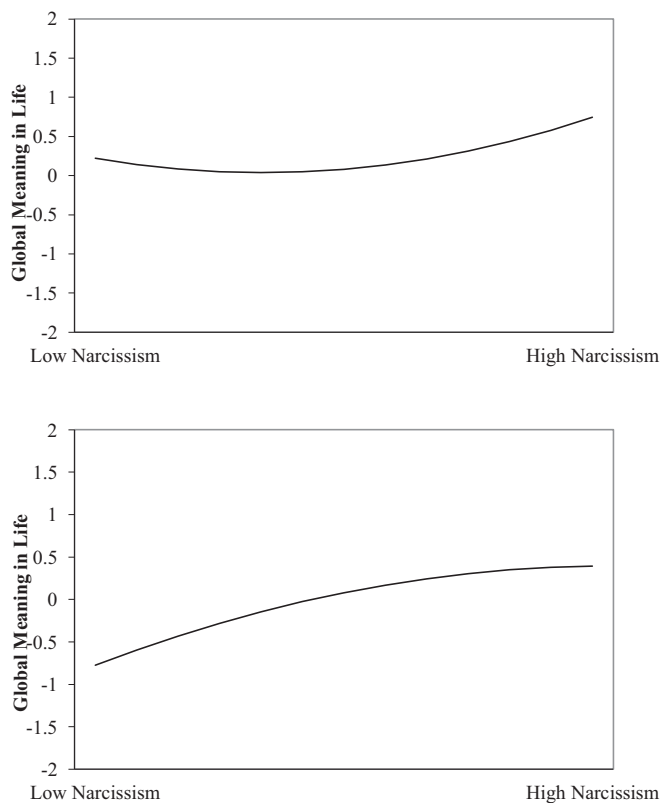


Figure 3. Quadratic Effects of Narcissism on Meaning in Life in Studies 2 (top panel) and 3 (bottom panel).

Instead, all three facets were important to understanding the relationship between narcissism and global meaning in life. These findings suggest one reason that narcissistic self-perceptions and behavior patterns may be difficult to change—they facilitate not only a sense of positive self-regard, but also the sense that life is meaningful. The current results have implications for our understanding of the potential functions of narcissism, meaning in life, and well-being.

5.1. The nature of narcissism and its relationship with well-being

Narcissism has been conceptualized in many different ways. For instance, trait approaches define narcissism in terms of high extraversion (particularly agency) and low agreeableness (especially communion) (Campbell et al., 2002). Within the framework of attachment theory, narcissism resembles a dismissive attachment style, comprised of an imbalance of positive self-perceptions and negative perceptions of others (Griffin and Bartholomew, 1994). Evolutionary perspectives characterize narcissism as a trait that has frequency-dependent adaptive value (e.g., Jones, 2014). In other words, narcissism is a strategy that may be successful so long as it is relatively uncommon in the general population. Research supports the idea that, in certain domains (e.g., leadership; see Watts et al., 2012; Reuben et al., 2012), narcissism can produce benefits for the person. The present research bolsters this perspective, showing that one such benefit is the sense that one's life is meaningful. These results jibe with past studies showing that experiences that feed into positive human functioning, such as self-esteem (Sedikides et al., 2004), authenticity (Womick et al., 2019a), and goal pursuit (Abeyta et al., 2017) do not lose their relevance to well-being via their association with narcissism.

The present results also highlight the importance of considering the link between narcissism and well-being beyond the obvious. Previous research has shown that self-esteem, which shares clear conceptual overlap with narcissism accounts for the link between narcissism and

well-being (Sedikides et al., 2004). Self-esteem and existential significance hold similar conceptual overlap with narcissism. The overlap among these constructs justifies the focus of past research on self-esteem, and our prediction for the differential relevance of existential significance to the association between narcissism and meaning in life. The current results show that narcissism may facilitate experiences beyond those that bear such obvious conceptual relevance. Not only self-esteem, but also the sense that life is meaningful accounts for the association between narcissism and subjective well-being. Similarly, not only existential significance, but also purpose and coherence mediate the association between narcissism and meaning in life. Narcissism appears to contribute to the existential domain through all possible routes (existential significance, purpose, and coherence).

The relationship between narcissism and purpose suggests that this trait, and its agentic components (e.g., Campbell et al., 2002), may facilitate goal directedness, even if such goals are relatively extrinsic (see Abeyta et al., 2017). Similarly, the relationship of narcissism with coherence provides support for the idea that the self may function as an organizing principle for narcissists, helping them interpret their experiences. Future research might examine how experiences that challenge a sense of purpose and coherence influence meaning in life and well-being among narcissistic individuals.

5.2. Implications for meaning in life and well-being

Research on dispositional sources of meaning in life (right-wing authoritarianism and intrinsic religiosity) has shown that existential significance (not purpose or coherence) explained their association with global meaning in life (Womick et al., 2019a). If existential significance is particularly relevant to the experience of meaning in life, in general, we might expect it to be especially so in the context of narcissism. Yet, in these studies, all three facets of meaning were important to understanding the link between narcissism and global meaning in life. The present studies suggest that existential significance is unusually relevant to narcissism (but not to meaning in life). They also suggest a difference between narcissism and other sources of meaning in life.

The present results also contribute to research showing that dispositional characteristics contribute to higher well-being via the experience of meaning in life (Steger and Frazier, 2005; Womick et al., 2019a). Extending the scope of the constructs tested within this framework (beyond narcissism) In this vein, it is interesting to consider results for self-esteem. Meaning in life did not fully explain the relationship of self-esteem with subjective well-being. In addition, meaning in life and self-esteem served as independent parallel mediators of the association between narcissism and subjective well-being. It may be that self-esteem and meaning in life provide separable pathways to positive psychological adjustment. Testing this possibility in the context of characteristics beyond narcissism is an important goal for future research.

5.3. Limitations and future research directions

A number of features of the designs of the studies reported here limit the inferences that can be drawn from them. First, our samples consisted of undergraduate students, and Amazon Mechanical Turk Workers. While we do not feel these populations present a unique concern for the research questions addressed in these studies, they are not representative of the general population. Thus, future research should attempt to replicate these results in nationally representative samples, and in other cultural contexts.

Second, the present research focused solely on grandiose narcissism. Although the literature points to grandiose and agentic narcissism as most relevant to the link between this trait and well-being (Zemojtel-Piotrowska et al., 2017), particularly self-esteem (Mota et al., 2019), future research should examine how the associations uncovered here differ as a function of different narcissism dimensions. Such research would likely identify similar but weaker associations for communal

narcissism. In contrast, vulnerable and antagonistic narcissism are negatively related to self-esteem (Mota et al., 2019), so it is likely that they are also negatively related to meaning in life, and subjective well-being. It may be possible that vulnerable and antagonistic narcissism predict lower subjective well-being though their potential negative association with meaning in life. Future research should test whether such relationships are also independent of self-esteem, consistent with the present findings.

Third, while mediation models allowed us to test the conceptual associations among constructs that we hypothesized, the design of our studies prevented us from drawing inferences about causation and temporal order. Future research should use longitudinal designs, and administer measures of narcissism, the facets of meaning, global meaning in life, and subjective well-being, in that order, in order to provide a more rigorous test of our conceptual model.

Additionally, the data presented here relied entirely on self-reports. Research has probed whether narcissists have insight into their lives using peer reports (Carlson et al., 2012; Park and Colvin, 2014). Future research might include peer reports of narcissism and meaning in life. Peers may perceive people high on narcissism as lower in well-being because they can be aggressive and hostile in interpersonal interactions (e.g., Kernis and Sun, 1994). Whether such perceptions influence perceived meaning in life is an interesting direction for future inquiry. In addition, future research might probe whether the link between narcissism and meaning depends on social contexts. In some situations narcissism may be well-suited to facilitate meaning in life (e.g., activities for which a dose of grandiosity might be adaptive, such as leadership). In others (e.g., close relationships; see Harlei and Weiner, 2000), narcissism might be less well-suited to promote meaning in life.

Daily diary studies show that people high on narcissism, particularly antagonistic narcissism, also experience greater fluctuations in mood (Bogard et al., 2004), and self-esteem (Rhodewalt et al., 1998; Geukes et al., 2017). Thus, narcissists may not simply high on well-being and meaning in life, their perceptions of meaning in life and well-being may also be unstable. Future studies might test the possibility that people high in narcissism also experience greater fluctuations in perceptions of meaning in life over time. Narcissism may be a wellspring of meaning in life, but an unstable one.

Declarations

Author contribution statement

J. Womick, B. Atherton, L. A King: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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