

**I'll get there because I'm great, or am I? Narcissistic Vulnerability Moderates the
Narcissistic Grandiosity – Goal Persistence Relationship**

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1 Abstract

1

2 Across three studies, we examined the moderating effect of narcissistic vulnerability on
3 the relationship between narcissistic grandiosity and persistence. In Study 1 ($n = 338$),
4 narcissistic grandiosity predicted greater goal-drive persistence, but only when
5 individuals also possessed a degree of narcissistic vulnerability. In Study 2 ($n = 199$), we
6 replicated these effects and demonstrated that they were independent of socially desirable
7 responding. In Study 3 ($n = 372$), narcissistic vulnerability moderated the grandiosity –
8 persistence relationship to predict persistence for personally relevant goals and
9 hypothetical goals. Notably, the moderating effect of vulnerability was independent of
10 the effects of self-esteem. These results provide the first evidence that narcissistic
11 grandiosity predicts persistence only in the presence of self-doubt regarding superiority.
12 The results demonstrate the importance of considering the interplay between the two
13 components of narcissism.

14 *Keywords:* Narcissism, Grandiose, Vulnerable, Persistence

1 Narcissists want to be admired by others. This need for admiration is so deep-seated
2(Morf & Rhodewalt, 2001) that they will go to great lengths to satisfy it. Although admiration
3can be garnered in a multitude of ways, one strategy for achieving admiration is through the
4accomplishment of goals. For example, gaining a promotion at work or getting top grades on an
5assignment provides an opportunity for narcissistic individuals to gain the admiration from
6others, which they feel is naturally deserved. Although gaining success via goal accomplishment
7often depends on a willingness to persist at a task, it is unclear whether narcissism is beneficial
8or detrimental for persistence. In theory, if narcissists crave the adulation that comes with
9success, they should relentlessly pursue goals to obtain that adulation. Yet narcissism is also
10characterized by impulsive and self-defeating behaviours (e.g., Miller et al., 2009; Vazire &
11Funder, 2006), which suggests that any attempt at persistence may easily be derailed (Wallace,
12Ready, & Weitenhagen, 2009). This research on narcissism has almost exclusively focused on
13narcissistic grandiosity, at the exclusion of the vulnerable component of narcissism. In the
14present research, we examine the possible interplay between these two components of
15narcissism: grandiosity and vulnerability, to predict goal-drive persistence.

16 There is considerable disagreement regarding the dimensional nature of narcissism, with
17narcissism proposed to exist in forms that are covert and overt, adaptive and maladaptive, or
18normal and pathological (Cain, Pincus, & Ansell, 2008). However, in this paper we
19conceptualise narcissism with respect to the well-recognized components of narcissistic
20grandiosity and vulnerability (Miller et al., 2011, 2014; Miller & Campbell, 2008; Morf &
21Rhodewalt, 2001; Pincus & Lukowitsky, 2010; Wink, 1991). Narcissistic grandiosity is
22characterized by feelings of entitlement, superiority, exploitativeness and exhibitionism, and is
23typically assessed using the self-report Narcissistic Personality Inventory (NPI; Raskin & Hall,

11979). Pertinently, individuals who score highly on the NPI are typically characterized by traits
2that might support persistence. For example, they are optimistic (Farwell & Wohlwend-Lloyd,
31998), confident (Campbell, Goodie, & Foster, 2004), and typically possess high explicit self-
4esteem (Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). In contrast, narcissistic
5vulnerability reflects a more fragile expression of narcissism that is characterized by hostility
6(Clarke, Karlov, & Neale, 2015; Miller et al., 2011), hypersensitivity, social withdrawal
7(Dickinson & Pincus, 2003), and low explicit self-esteem (Miller et al., 2010).

8 It is less clear, however, whether grandiosity and vulnerability reflect distinct or
9interrelated personality processes, as evidence exists for both accounts. From one perspective,
10grandiosity and vulnerability are proposed to have markedly different manifestations and
11theoretical origins (Dickinson & Pincus, 2003; Miller et al., 2010, 2011). However, other
12(largely) psychodynamic theorizing holds that these components are interrelated, with
13narcissistic grandiosity and vulnerability co-existing within individuals (Morf & Rhodewalt,
142001; Pincus, Cain, & Wright, 2014; Pincus & Lukowitsky, 2010) or being defined across a
15spectrum (Krizan & Herlache, 2017). Regardless of one's theoretical position, these two
16expressions of narcissism are separable; narcissistic grandiosity and vulnerability are not
17mutually exclusive and research shows that measures of grandiosity and vulnerability are either
18uncorrelated (Hendin & Cheek, 1997; Luchner, Houston, Walker, & Houston, 2011), or have a
19weak positive relationship (Ng, Tam, & Shu, 2011). Given that researchers have emphasized the
20importance of considering both aspects of narcissism (e.g., Miller & Campbell, 2008), it is
21surprising that there is a dearth of literature considering the effects of both components, either
22independently or as an interacting dyad (for an exception see Roche, Pincus, Conroy, Hyde, &

1Ram, 2013). Indeed, one area where the consideration of the interactive effects of these two
2components might be particularly relevant is goal persistence.

3 The evidence for the relationship between narcissistic grandiosity and persistence is
4equivocal, suggesting that narcissistic grandiosity may facilitate persistence in some
5circumstances but not in others (Wallace et al., 2009). For example, individuals high in
6narcissistic grandiosity spend greater time attempting impossible tasks in laboratory settings
7(Wallace et al., 2009; Study 1). One potential explanation is that narcissists perceive they have
8greater control over outcomes and confidence in their ability to succeed (Farwell & Wohlwend-
9Lloyd, 1998; Robins & Beer, 2001).

10 However, possessing an unshakable confidence in one's capabilities may not always
11benefit persistence. For example, individuals may fail to appreciate the necessity of sustained
12effort on long-term goals and instead believe that success is achievable through their unique
13talents rather than via persistence. Similarly, the impulsive tendencies associated with
14narcissistic grandiosity (Vazire & Funder, 2006) may lead to the pursuit of short-term goals, to
15the detriment of long-term persistence. Another relevant factor in determining the grandiosity –
16persistence relationship is the self-enhancing potential of the present goal. In other words,
17grandiose individuals may be persistent in their attempts to obtain self-enhancement but they are
18not necessarily committed to a specific goal.

19 In summary, grandiosity alone may be insufficient for persistence. It is possible that
20narcissistic grandiosity only predicts the motivation to persist (i.e., pursue self-enhancement)
21when an individual's sense of superiority and self-worth is precarious. In this regard, the more
22fragile counterpart of narcissism may in fact be a key variable to aid persistence: narcissistic
23vulnerability. In other words, it is plausible that narcissistic grandiosity, in the complete absence

1of vulnerability, conveys a sense of being on a pedestal, and this illusion of grandeur associated
2with grandiosity might cause individuals to be weakly motivated to expend additional effort
3persisting on tasks to further boost their self-image (Roberts, Woodman, & Sedikides, 2017). In
4contrast, a degree of vulnerability might be necessary to drive the strongest persistent, because
5only through their achievements will they garner the approval of others and recognition of their
6superiority that is necessary to buffer their fragile ego.

7 Although the fragility associated with narcissistic vulnerability might drive greater
8persistence for individuals who also possess a belief in their inherent superiority, narcissistic
9vulnerability alone may likely lead to the very lowest levels of persistence. As individuals who
10are high in narcissistic vulnerability rely on the approval of others to validate their self-worth, (at
11least in the absence of grandiosity) and at the same time lack personal efficacy and confidence,
12they are likely to respond with social withdrawal and avoid environments where their self-beliefs
13are likely to be challenged or confronted (Dickinson & Pincus, 2003; Fossati et al., 2009; Foster
14& Trimm, 2008).

15Present Research

16 In three studies, we examined whether narcissistic vulnerability moderates the
17relationship between narcissistic grandiosity and goal-drive persistence. Based on the theorizing
18above, we predicted that narcissistic grandiosity would be positively related to persistence only
19when accompanied by moderate or high levels of narcissistic vulnerability. In the absence of
20vulnerability, we anticipated that narcissistic grandiosity would be unrelated to persistence. In
21Study 1 we examined the relationship between narcissistic vulnerability and grandiosity to
22predict trait persistence. In Study 2 we examined the relationship between narcissistic
23vulnerability and grandiosity to predict persistence whilst controlling for the possible effects of

1socially desirable responding. In Study 3 we assessed persistence whilst controlling for self-
2esteem. That is, persistence was assessed using alternative trait measures for personally relevant
3goals and in response to setbacks in achievement and interpersonal domains.

4 **Study 1 Methods**

5**Participants**

6 We recruited three hundred and thirty eight participants (164 women, 174 men, $M_{\text{age}} =$
724.38, $SD = 8.52$) from a UK University through advertisements around the campus. In order to
8have .80 power to detect a conservative effect size for the interaction, i.e., a Cohen's $f^2 = .025$
9(Aguinis, Beaty, Boik, & Pierce, 2005), we required a minimum sample of 316 participants
10(G*Power 3; Faul, Erdfelder, Lang, & Buchner, 2007). Participants received course credit and
11the opportunity to win a cash prize (£20; equivalent to approximately US \$25) and were directed
12to a pack containing questionnaires assessing narcissism and persistence.

13**Measures**

14 **Narcissism.**

15 In line with previous research (e.g., Boldero, Higgins, & Hulbert, 2015), we assessed
16narcissistic grandiosity and vulnerability using the Narcissistic Personality Inventory (Raskin &
17Hall, 1979) and the Hypersensitive Narcissism Scale (Hendin & Cheek, 1997), respectively. The
18Narcissistic Personality Inventory (NPI) contains 40 forced-choice items, requiring participants
19to select the statement with which they most strongly agree, e.g., A: "I am no better or worse
20than most people" or B: "I think I am a special person". For each item, selection of the
21narcissistic statement was coded one and selection of the non-narcissistic statement was coded
22zero. In the present sample, the mean item score for the NPI was 0.33 ($SD = 0.17$) and the scale
23reliability was good ($\alpha = .88$). The Hypersensitive Narcissism Scale (HSNS; Hendin & Cheek,
241997) is a ten-item measure of narcissistic vulnerability with good construct and criterion related

1 validity that closely matches expert ratings of vulnerable narcissism (Miller et al., 2014). An
2 example of an item is, “my feelings are easily hurt by ridicule or the slighting remarks of
3 others”. Responses were measured on a five-point scale from 1 (*very uncharacteristic, strongly*
4 *disagree*) to 5 (*very characteristic, strongly agree*). The mean item score in present sample was
5 $M = 2.83$ ($SD = 0.62$) and demonstrated good scale reliability ($\alpha = .74$).

6 **Goal-Drive Persistence.**

7 We used the Reinforcement Sensitivity Theory Personality Questionnaire (RST-PQ; Corr
8 & Cooper, 2016) to examine goal-drive persistence. Seven items assessed goal-drive persistence,
9 for example, “I often overcome hurdles to achieve my ambitions”. Responses were measured on
10 a four-point scale from 1 (*not at all*) to 4 (*highly*); in the present sample, the mean item score was
11 3.15 ($SD = 0.63$) and scale reliability was good, ($\alpha = .87$)¹.

12 **Analysis**

13 We used moderated hierarchical regression to test the interactive effects of narcissistic
14 grandiosity and vulnerability on goal-drive persistence. We used bias corrected bootstrap
15 confidence intervals with unstandardized regression coefficients in PROCESS (Model 1) for
16 SPSS (Hayes, 2013). In PROCESS, all variables are entered together in a single step and main
17 effects are conditional on setting all other variables to their mean. Further, we mean-centred
18 narcissistic grandiosity and vulnerability scores prior to analysis. Because narcissism scores have
19 been shown to differ for males and females, and to be age dependent (Tschanz, Morf, & Turner,
20 1998), we entered sex and age as covariates in our model.

21 **Results and Discussion**

2 ¹ Participants also completed items assessing additional facets of the behavioural
3 approach system: reward interest, reward reactivity, and impulsivity; these are not reported here.

1 Supporting the position that narcissistic grandiosity and vulnerability are not mutually
2exclusive, they were modestly related in Study 1 ($r = .16, p = .004$). The regression model with
3narcissistic grandiosity and vulnerability as predictors explained 11.6% of the total variance in
4goal-drive persistence (see Table 1). After controlling for the effects of all other variables, the
5conditional main effect of narcissistic grandiosity on goal-drive persistence was positive ($\beta =$
61.54, $p < .001$), and the effect of vulnerability was negative ($\beta = -0.16, p = .003$). Importantly,
7narcissistic vulnerability moderated the relationship between grandiosity and goal-drive
8persistence, $\Delta F(1, 332) = 7.60, \Delta R^2 = .02, \beta = 0.83, p = .006, 95\% \text{ CI } [0.24, 1.42]$, Cohen's f^2
9= .02 (see Figure 1). Simple slopes analysis revealed a statistically significant positive
10relationship between narcissistic grandiosity and goal-drive persistence when narcissistic
11vulnerability was high, $t(332) = 6.47, \beta = 1.54, p < .001, 95\% \text{ CI } [1.07, 2.00]$, and a positive
12non-significant relationship when narcissistic vulnerability was low, $t(332) = 1.68, \beta = 0.51, p$
13=.09, 95% CI [-0.09, 1.10].

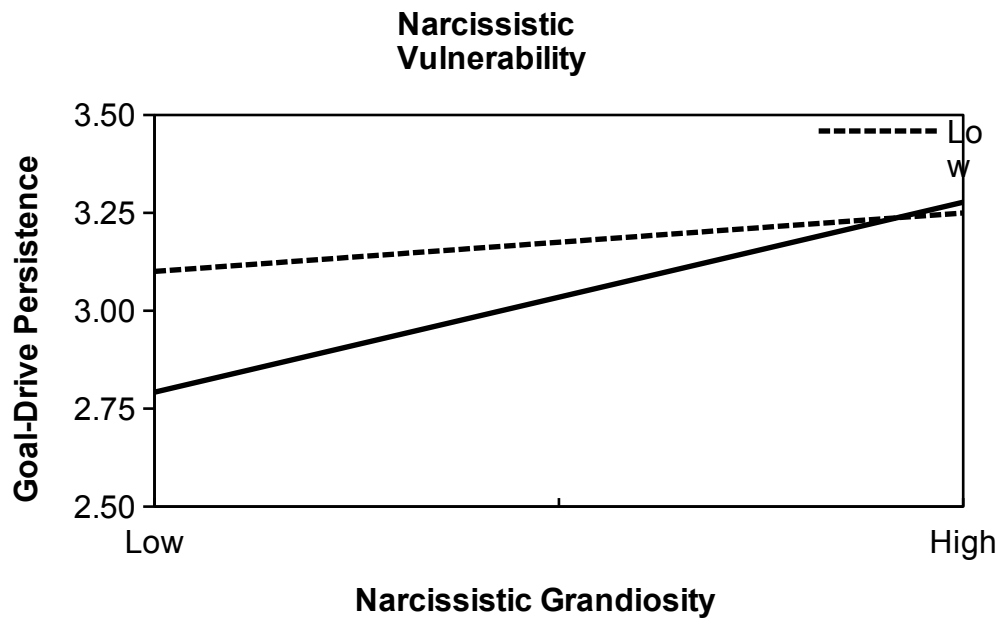
14 In summary for Study 1, we found evidence that narcissistic vulnerability moderated the
15grandiosity – goal drive persistence relationship. Grandiosity predicted greater self-reported
16persistence only when combined with moderate or high levels of vulnerability. When
17vulnerability is low, grandiosity is unrelated to self-reported persistence.

1Table 1

2Moderated regression analysis to predict trait persistence in Study 1.

	β	95% CI	SE	t	p
Grandiosity	1.02	[0.64, 1.41]	0.20	5.22	< .001
Vulnerability	-0.16	[-0.26, -0.05]	0.05	-2.99	.003
Grandiosity \times Vulnerability	0.83	[0.24, 1.42]	0.20	2.76	.006
Age	-0.00	[-0.01, 0.01]	0.00	-0.19	.853
Sex	0.15	[0.02, 0.28]	0.07	2.31	.022
Intercept	3.08	[2.87, 3.28]	0.10	29.66	< .001

3Note. Sex coded 0 = men, 1 = women. 95% CI are confidence intervals [lower limit, upper limit].



1 *Figure 1.* Interaction between narcissistic grandiosity and vulnerability to predict trait goal-drive
2 persistence in Study 1. Lines are plotted for hypothetical individuals who are 1 *SD* above (solid)
3 and 1 *SD* below (dashed) the mean.

4 **Study 2**

5 Given that Study 1 was the first test of the interplay between grandiose and vulnerable
6 narcissism on task persistence, the primary aim of Study 2 was to replicate the effects of Study 1.
7 One might also argue that the results might be explained (in part) by narcissists' self-deceptive
8 responses to measures of persistence (e.g., Raskin, Novacek, & Hogan, 1991). For example,
9 individuals who display the highest levels of (vulnerable and grandiose) narcissism may be the
10 most likely to feel the need to protect their ego by responding in the most positive light regarding
11 persistence. Consequently, our secondary aim was to rule out socially desirable responding
12 (SDR) as a possible explanation for the effects revealed in Study 1. In Study 2, we addressed this
13 alternative explanation by examining whether vulnerability moderated the relationship between
14 grandiosity and persistence, whilst controlling for impression management and self-deceptive
15 enhancement in a sample of non-student participants.

16 **Methods**

17 **Participants**

18 We recruited 248 participants (83 men, 165 women, $M_{\text{age}} = 39.21$, $SD_{\text{age}} = 13.88$) based in
19 the United States using Amazon's Mechanical Turk (MTurk), a crowd-sourcing platform that is
20 commonly used as a source of high-quality data, representative of the general population
21 (Buhrmester, Kwang, & Gosling, 2011; Crump, McDonnell, & Gureckis, 2013). Following
22 recruitment, we directed participants to an online questionnaire, hosted on Bristol Online Survey
23 (www.onlinesurveys.ac.uk). After completing the questionnaires ($M_{\text{Completion Time}} = 12$ mins)
24 participants received a small monetary compensation (\$0.50).

1Measures

2 Narcissism and Persistence.

3 We used the same measures to assess narcissistic grandiosity (NPI; $M = 0.25$, $SD =$
40.16), narcissistic vulnerability (HSNS; $M = 2.86$, $SD = 0.64$) and persistence (RST-PQ: GDP; M
5= 2.83, $SD = 0.68$) as we used in Study 1.

6 Attention.

7 Because we were paying participants, it was possible that some respondents would not
8fully attend to the questions. To control for this potential confound, we interlaced six items
9within the online questionnaire that tested if participants were answering appropriately and
10paying attention (e.g., “the US flag has stars and stripes”). We excluded forty-nine participants
11who failed to answer all six questions correctly, leaving a final sample of 199 participants (63
12men, 136 women, $M_{\text{age}} = 40.94$, $SD_{\text{age}} = 14.09$).

13 Desirable responding.

14 To control for response bias, participants completed the Balanced Inventory of Desirable
15Responding (BIDR; Paulhus, 1984). The BIDR contains 40 items, assessing two aspects of
16desirable responding: Impression Management (IM) and Self-Deceptive Enhancement (SDE).
17Any responses of six or above (on a scale ranging 1-7) were scored with one point such that IM
18and SDE could each have a maximum of 20. IM ($M_{\text{total}} = 6.95$, $SD = 4.59$) reflects whether
19respondents are answering honestly, e.g. “Once in a while I laugh at a dirty joke”. SDE ($M_{\text{total}} =$
205.99, $SD = 4.37$) assesses the degree to which respondents give honest answers but are positively
21biased, e.g. “I am a completely rational person”.

22Analysis

1 We conducted moderated regression analysis in PROCESS using the same procedures
2 outlined in Study 1; age, sex, self-deceptive enhancement and impression management were
3 entered as covariates in the regression model.

4 **Results and Discussion**

5 Replicating the results of Study 1, narcissistic vulnerability moderated the effect of
6 grandiosity on goal-drive persistence (see Table 2). After entering age, sex, self-deceptive
7 enhancement and impression management as covariates, the vulnerability \times grandiosity
8 interaction was statistically significant, (at the one-tailed level of significance²) $\Delta F(1, 191) =$
9 $93.61, \Delta R^2 = .02, \beta = 0.84, p = .037, f^2 = .02$. Simple slopes analysis revealed a statistically
10 significant positive relationship between narcissistic grandiosity and goal-drive persistence when
11 narcissistic vulnerability was high, $t(191) = 4.06, \beta = 1.86, p < .001, 95\% \text{ CI } [0.96, 2.77]$ but no
12 statistically significant relationship when narcissistic vulnerability was low, $t(191) = 1.57, \beta =$
13 $0.73, p = .117, 95\% \text{ CI } [-0.19, 1.64]$, see Figure 2. Self-deceptive enhancement was a significant
14 predictor of persistence, whereas age, impression management, and sex, were each unrelated to
15 persistence. The results of Study 2 offer further support that narcissistic vulnerability moderates
16 the grandiosity-persistence relationship and largely discount the possibility that desirable
17 responding can explain these effects.

2 ² A one-tailed test was justified given that we were attempting to replicate the effect in
3 Study 1 using the same predictors and dependent variable. A one-tailed test also has the benefit
4 of increasing statistical power in Study 2.

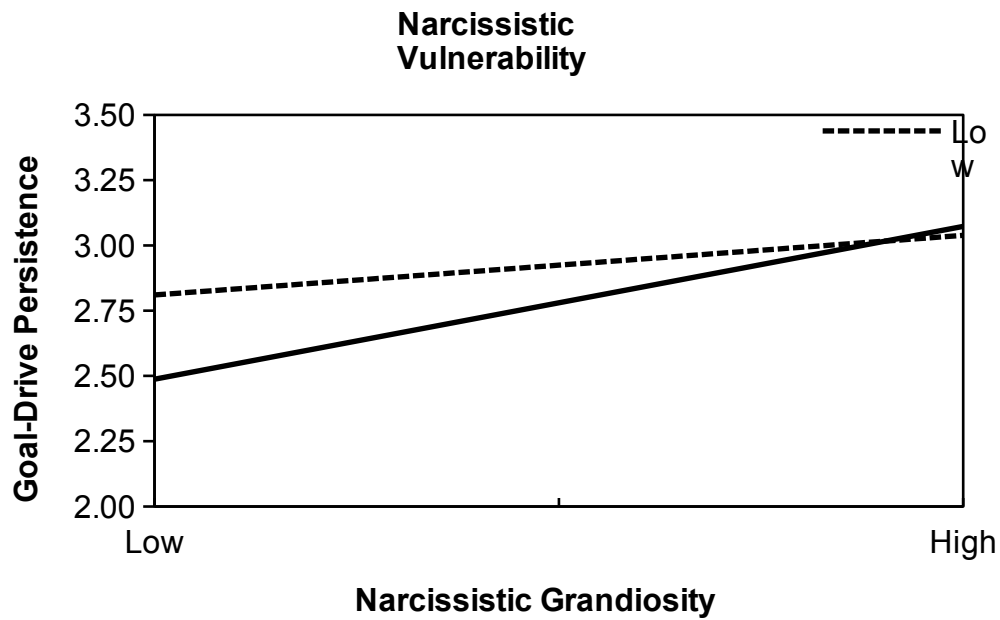
1Table 2

2Moderated regression analysis to predict trait persistence in Study 2

	β	95% CI	SE	t	p
Grandiosity	1.30	[0.64, 1.96]	0.33	3.87	< .001
Vulnerability	-0.11	[-0.27, 0.05]	0.08	-1.30	.195
Self Deceptive Enhancement	0.70	[0.10, 1.29]	0.30	2.31	.022
Impression Management	0.36	[-0.22, 0.94]	0.29	1.23	.219
Grandiosity \times Vulnerability	0.83	[-0.08, 1.75]	0.46	1.79	.075
Age	-0.01	[-0.01, 0.00]	0.00	-1.75	.082
Sex	0.07	[-0.15, 0.28]	0.11	0.60	.549
Intercept	2.75	[2.39, 3.10]	0.18	15.30	< .001

3Note. ($N = 199$), Sex coded: 0 = men, 1 = women. 95% CI are confidence intervals, [lower limit,

4upper limit], SE = standard error.



1 *Figure 2.* Interaction between narcissistic grandiosity and vulnerability to predict trait persistence
2 in Study 2. Socially desirable responding was entered as a covariate and lines are plotted for
3 hypothetical individuals who are 1 *SD* above (solid) and 1 *SD* below (dashed) the mean.

4 **Study 3**

5 Studies 1 and 2 demonstrate a consistent effect of vulnerability as a significant moderator
6 of the grandiosity – persistence relationship. Despite the replication of this effect, it is
7 constrained by a reliance on a single measure of persistence across both studies. To address this
8 limitation in Study 3, participants completed two additional measures to assess constructs related
9 to persistence: industriousness and perseverance. Further, we extended the assessment of
10 persistence by examining motivations to persist towards personally relevant, real-life goals.
11 Finally, we examined persistence following setbacks. Persistence towards goals is rarely without
12 setbacks and setbacks may be particularly salient if they threaten a person's self-worth. In Study
13, we presented participants with two vignettes that described threatening setbacks within either
14 an achievement domain or an interpersonal domain. The distinction between achievement and
15 interpersonal goals is potentially important because grandiosity and vulnerability have been
16 associated with different emotional responses to setbacks in each domain (Besser & Priel, 2010).
17 More specifically, narcissistic grandiosity predicts greater negative affect to thwarted
18 achievement, whereas narcissistic vulnerability is more sensitive to interpersonal threats.
19 Consequently, narcissistic vulnerability might not moderate the grandiosity – persistence
20 relationship in interpersonal domains, because persistence here does not necessarily reinforce the
21 superiority that is craved by individuals who are high in narcissistic grandiosity. Indeed, previous
22 theorising has suggested that narcissists aspire to achieve more than to be liked (e.g., Morf &
23 Rhodewalt, 2001)

1 Finally, there is an alternative, and perhaps more parsimonious, explanation for the
2 interaction effect in Studies 1 and 2. Specifically, narcissistic vulnerability is negatively
3 correlated with self-esteem (Rose, 2002) and low self-esteem can predict greater persistence,
4 particularly in response to repeated failure (Di Paula & Campbell, 2002). Consequently, we
5 controlled for self-esteem in all analyses in Study 3.

6 **Methods**

7 **Participants**

8 We recruited 407 participants based in the US using MTurk and the same procedure
9 outlined in Study 2 ($M_{\text{Completion Time}} = 25$ mins). We excluded thirty-five participants who failed to
10 answer each of four attention items correctly, leaving a final sample of 372 participants (138
11 men, 234 women, $M_{\text{age}} = 39.03$, $SD_{\text{age}} = 13.32$). Participants were paid \$0.75 upon completion of
12 the study.

13 **Measures**

14 **Narcissism and self-esteem.**

15 Consistent with Studies 1 and 2, we assessed narcissistic vulnerability and grandiosity
16 using the HSNS and NPI, respectively. We assessed trait self-esteem using the Rosenberg Self-
17 Esteem Scale (RSE; Rosenberg, 1965). The RSE is an established measure of self-esteem and
18 contains ten items with a 1-4 response scale that assesses one general factor of self-esteem. An
19 example item from the RSE is, “On the whole, I am satisfied with myself.” Means, ranges,
20 standard deviations and scale reliability are presented in Table 3.

21 **Trait persistence.**

22 Participants completed the 7-item goal-drive persistence scale used in Studies 1 and 2.
23 Participants also completed two measures that included items from the International Personality

1Item Pool (Goldberg, 1999). A 10-item Industriousness (IND) scale included items such as,
2“Work Hard”. An 8-item Industry/Perseverance/Persistence (IPP) scale included items such as,
3“Don’t quit a task before it is finished”. Responses to both scales were measured on a five-point
4scale from 1 (*very inaccurate*) to 5 (*very accurate*); means, standard deviations and alphas can be
5found in Table 3.

6 **Personal goals.**

7 We assessed persistence motivation in personally relevant domains by asking participants
8to list two goals that they were currently trying to obtain or accomplish. Persistence motivation
9for these two goals was assessed using four items adapted from the RST-PQ: “I will put effort
10into achieving this goal”; “I will persist in trying to achieve this goal”; “I will make plans to
11ensure I succeed in this goal”; “I will persevere on this goal even if I suffer setbacks”. We
12standardized persistence scores for each goal and combined them to create a single measure of
13persistence for personal goals.

14 **Goal setbacks.**

15 We examined persistence in response to setbacks by presenting participants with two
16vignettes, adapted from Besser & Zeigler-Hill (2010). The vignettes described scenarios with an
17interpersonal (romantic relationship) or achievement (job promotion) goal focus (see Appendix).
18We assessed persistence motivation using the same four items described for personal goals.

19**Analysis**

20 We again use moderated regression analysis performed with PROCESS using the same
21procedures outlined in Studies 1 and 2. We entered age, sex and self-esteem as covariates in all
22regression models.

1 Consistent with Studies 1 and 2, narcissistic grandiosity and vulnerability were modestly
 2 correlated ($r = .15, p = .004$). Narcissistic grandiosity was positively related to all trait measures
 3 of persistence but unrelated to persistence measures for personal goals or following setbacks (see
 4 Table 3). In contrast, narcissistic vulnerability predicted lower persistence across all measures.
 5 Table 3

6 Means, standard deviation, range and reliability of persistence measures in Study 3 and their
 7 zero-order correlations with the two components of narcissism.

	Narcissism Component		<i>M</i>	<i>SD</i>	<i>Range</i>	<i>Alpha</i>
	Grandiosity	Vulnerability				
Trait Persistence						
GDP	.23	-.20	3.37	0.55	1.29 - 4.00	.89
IND	.18	-.24	4.02	0.65	1.20 - 5.00	.89
IPP	.14	-.37	3.76	0.72	0.75 - 4.75	.89
Goal Persistence						
Goal 1	.05	-.22	3.75	0.42	1.40 - 5.00	.87
Goal 2	.01	-.25	3.68	0.50	1.20 - 5.00	.92
Goal Setbacks						
Achievement	.09	-.23	4.45	0.83	1.00 - 5.00	.96
Interpersonal	-.10	-.17	4.55	0.70	1.00 - 5.00	.92
Self-Esteem	.16	-.46	3.00	0.48	1.30 - 3.70	.82

8 Note. Mean-item scores are reported for each scale and statistically significant correlations (p

9 $< .05$) are in bold. Narcissistic grandiosity and vulnerability were measured using the 40-item

10 Narcissism Personality Inventory and 10-item Hypersensitive Narcissism Scale, respectively.

11 GDP is the 7-item, goal-drive persistence scale from the Reinforcement Sensitivity Theory

12 Questionnaire. Items from the International Personality Item Pool reflect Industriousness (IND)

13 and Industry, Perseverance, Persistence (IPP). Goal persistence reflects responses to a 4-item

14 measure of persistence motivation for two personal goals that individuals are currently, or about

15 to start, pursuing. The same 4-item measure assessed persistence motivation following setbacks

1Figure 3. Interaction between narcissistic grandiosity and vulnerability to predict trait persistence
 2in Study 3. Trait Persistence (Z) is a composite measure of the standardized scores for the three
 3measures of trait persistence: goal-drive persistence (GDP), industriousness (IND), and industry,
 4perseverance and persistence (IPP). Lines are plotted for hypothetical individuals who are 1 SD
 5above (black) and 1 SD below (dashed) the mean.

6Table 4

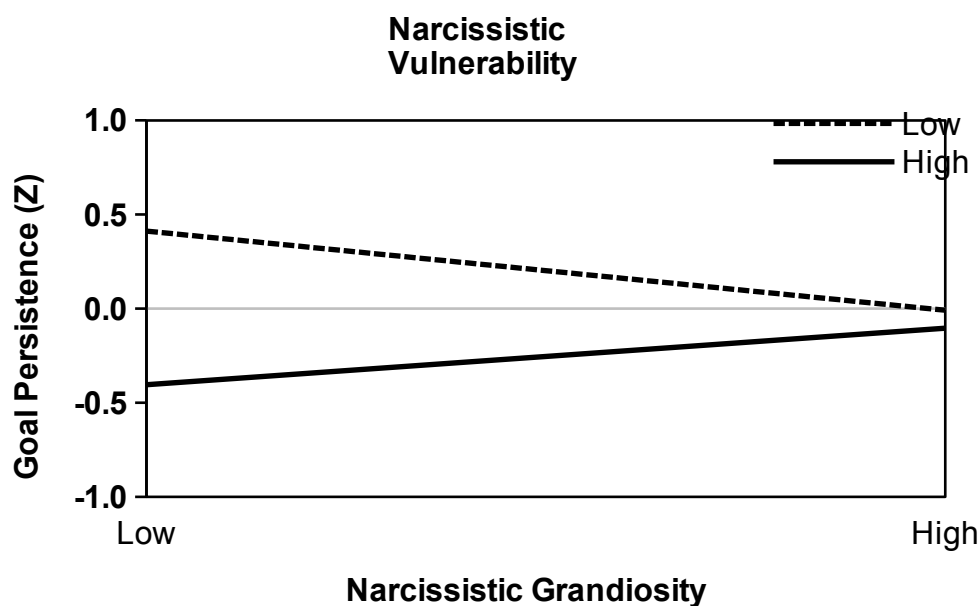
7Moderated regression analysis to predict trait persistence and personal goal persistence in
 8Study 3

	β	95% CI	SE	<i>t</i>	<i>P</i>
<i>Trait Persistence</i>					
Grandiosity	1.89	[0.57, 3.21]	0.67	2.82	.005
Vulnerability	-0.44	[-0.82, -0.06]	0.19	-2.28	.024
Self Esteem	2.54	[1.97, 3.11]	0.29	8.78	< .001
Grandiosity × Vulnerability	1.48	[-0.14, 3.10]	0.82	1.80	.073
Age	0.00	[-0.02, 0.02]	0.01	0.35	.729
Sex	0.17	[-0.31, 0.65]	0.24	0.71	.480
Intercept	-5.33	[-6.57, -4.09]	0.63	-8.47	< .001
<i>Goal Persistence</i>					
Grandiosity	-0.17	[-1.09, 0.75]	0.47	-0.36	.721
Vulnerability	-0.33	[-0.59, -0.06]	0.13	-2.41	.016
Self Esteem	1.08	[0.68, 1.48]	0.20	5.35	< .001
Grandiosity × Vulnerability	1.30	[0.17, 2.43]	0.58	2.26	.024
Age	0.00	[-0.01, 0.02]	0.01	0.34	.738
Sex	-0.12	[-0.45, 0.22]	0.17	-0.68	.500
Intercept	-2.20	[-3.06, -1.33]	0.44	-5.00	< .001

1Note. ($N = 372$), Sex coded 0 = males, 1 = females. 95% CI are confidence intervals, [lower
2limit, upper limit]. Trait Persistence is a composite of standardized score for three measures of
3persistence, Goal Persistence is composite of persistence intentions for two personal goals.

4Personal Goal Persistence.

5 Narcissistic vulnerability moderated the effect of grandiosity on persistence for personal
6goals. The vulnerability \times grandiosity interaction was statistically significant, even after
7accounting for the effects of self-esteem, $\Delta F(1, 365) = 5.39$, $\Delta R^2 = .01$, $\beta = 1.30$, $p = .024$, 95%
8CI [0.17, 2.43]; again, the conditional main effect of self-esteem predicted persistence (see Table
94). Simple slopes analysis revealed a positive relationship between narcissistic grandiosity and
10persistence when narcissistic vulnerability was high, $t(365) = 1.41$, $\beta = 0.77$, $p = .158$, 95% CI [-
110.30, 1.83]; there was a negative relationship when narcissistic vulnerability was low, $t(365) = -$
121.71, $\beta = -1.07$, $p = .089$, 95% CI [-2.31, 0.16] (see Figure 4); although neither slope was
13statistically significant.



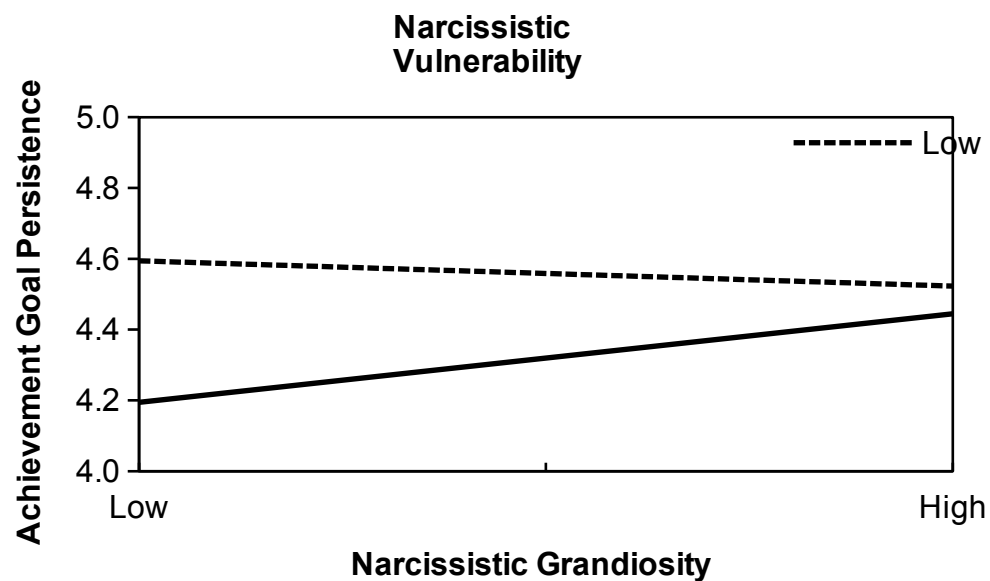
1 *Figure 4.* Interaction between narcissistic grandiosity and vulnerability to predict intentions to
2 persist on current goals in Study 3. Goal Persistence (Z) is a composite of the standardized
3 persistence score for both personal goals. Trait self-esteem was entered in the regression model
4 as a covariate. Lines are plotted for hypothetical individuals who are 1 *SD* above (solid) and 1
5 *SD* below (dashed) the mean.

6 **Goal Persistence Following Setbacks**

7 Mean persistence for the interpersonal and achievement scenarios was highly correlated
8 ($r = .44, p < .001$) and participants reported significantly greater persistence in response to the
9 interpersonal goal ($M = 4.54, SD = 0.70$), than to the achievement goal ($M = 4.45, SD = 0.83$),
10 $t(371) = 2.25, p = .025$.

11 **Achievement goal persistence.**

12 Narcissistic vulnerability moderated the relationship between grandiosity and the
13 motivation to persist on an achievement goal, despite receiving a threatening setback. After
14 including self-esteem as a predictor, the interaction was statistically significant, $\Delta F(1, 365) =$
15 $54.19, \Delta R^2 = .01, \beta = 0.60, p = .040, 95\% \text{ CI } [0.03, 1.17]$. Simple slopes analysis revealed a
16 positive relationship between narcissistic grandiosity and goal-drive persistence when
17 narcissistic vulnerability was high, $t(365) = 2.33, \beta = 0.64, p = .021, 95\% \text{ CI } [0.10, 1.18]$. In
18 contrast narcissistic grandiosity was unrelated to persistence when narcissistic vulnerability was
19 low, $t(365) = -.57, \beta = -0.18, p = .567, 95\% \text{ CI } [-0.81, 0.44]$; see Figure 5.



1

2Figure 5. Interaction between narcissistic grandiosity and vulnerability to predict achievement

3goal persistence in Study 3. Achievement goal persistence is the mean item score on a 5-item

4measure of persistence. Trait self-esteem was entered in the regression model as a covariate.

5Lines are plotted for hypothetical individuals who are 1 *SD* above (solid) and 1 *SD* below

6(dashed) the mean.

7Table 5

8Moderated regression analysis to predict persistence following achievement and interpersonal

9goal setbacks in Study 3.

	β	SE	t	p	95% CI
<i>Achievement Goal Persistence</i>					
Grandiosity	0.26	0.24	1.11	.268	[-0.20, 0.73]
Vulnerability	-0.17	0.07	-2.59	.011	[-0.31, -0.04]
Self Esteem	0.37	0.10	3.64	< .001	[0.17, 0.57]
Grandiosity \times Vulnerability	0.60	0.29	2.06	.040	[0.03, 1.17]
Age	-0.00	0.00	-0.24	.811	[-0.01, 0.01]
Sex	0.10	0.09	1.15	.251	[-0.07, 0.27]
Intercept	3.67	0.22	16.49	< .001	[3.23, 4.10]
<i>Interpersonal Goal Persistence</i>					
Grandiosity	-0.44	0.20	2.15	.032	[-0.84, -0.04]
Vulnerability	-0.06	0.06	-0.97	.332	[-0.17, 0.06]
Self Esteem	0.33	0.09	3.76	< .001	[0.16, 0.51]
Grandiosity \times Vulnerability	0.20	0.09	0.80	.425	[-0.29, 0.70]
Age	-0.00	0.01	-1.04	.298	[-0.01, 0.00]
Sex	0.17	0.07	2.33	.020	[0.03, 0.32]
Intercept	3.89	0.19	20.24	< .001	[3.51, 4.27]

1Note. ($N = 372$), Sex coded: 0 = males, 1 = females. 95% CI are confidence intervals, [lower
2limit, upper limit].

3Interpersonal Goal Persistence.

4 Narcissistic vulnerability did not moderate the effect of grandiosity on persistence
5intentions following an interpersonal rejection, $\Delta F(1, 365) = 0.46$, $\Delta R^2 = .00$, $\beta = 0.20$, $p = .425$,
695% CI [-0.29, 0.70]. The conditional main effects in the model revealed that narcissistic

1grandiosity predicted significantly less persistence whereas narcissistic vulnerability was
2unrelated to persistence (see Table 5).

3 The results of Study 3 confirm the main findings from Studies 1 and 2. The moderating
4effect of vulnerability on the grandiosity – persistence relationship was consistent across
5different measures of trait persistence, and for persistence towards personally relevant goals.

6 **General Discussion**

Across three studies we examined the interactive relationship between narcissistic
8dimensions upon persistence. Specifically, we asked whether narcissistic grandiosity would only
9be positively related to persistence when individuals also possess a degree of vulnerability (i.e.,
10self-doubt). In support of this perspective, Studies 1-3 showed that narcissistic grandiosity
11motivates goal persistence only when there is an element of doubt about one's grandeur. In the
12absence of vulnerability, grandiosity was unrelated to persistence; this moderating effect of
13narcissistic vulnerability was present even after accounting for the effects of socially desirable
14responding (Study 2) and self-esteem (Study 3).

Narcissistic vulnerability moderated the effect of grandiosity on trait persistence (Studies 161-3) and personal goal persistence (Study 3). Notably however, when we considered persistence in responses to setbacks, there was only a moderating effect of vulnerability for achievement goals but not for interpersonal setbacks. Thus, the moderating effect of vulnerability on the grandiosity – persistence relationship may not be applicable across all domains. The absence of an interaction between grandiosity and vulnerability in the interpersonal scenario may be best explained by considering the negative relationship between grandiosity and persistence. If grandiose-narcissistic individuals believe in their superiority and derogate the criticism from others, in interpersonal domains they appear to be more willing to walk away rather than to persist in the relationship. This may be understandable given that relationship persistence is not a

1route to the public self-enhancement they crave and narcissists are more likely to prioritize their
2personal successes rather than interpersonal relationships in their pursuit of admiration (e.g.,
3Ong, Roberts, Arthur, Woodman, & Akehurst, 2016). Indeed, individuals high in narcissistic
4grandiosity are likely to treat people and relationships as objects of their desire, and when they
5no longer fulfil their purpose (to admire and please), then they are promptly discarded. In
6contrast, the absence of a relationship between vulnerable narcissism and relationship persistence
7is more difficult to interpret. Although vulnerable-narcissistic individuals feel greater shame and
8negative affect in response to interpersonal setbacks (Besser & Priel, 2009), their response may
9depend on whether they perceive their self-worth can be best salvaged through passively
10withdrawing from the relationship or persisting to try and avoid further hurt; this perspective is
11worthy of future examination.

12 Despite the finding that vulnerability combined with high levels of grandiosity, leads to
13increased persistence, this does not imply that the moderating effect of vulnerability is
14behaviourally adaptive. This is because although we largely equate greater persistence as
15beneficial, our results do not speak to whether the moderating effect of narcissistic vulnerability
16influences the appropriateness of the goals that narcissistic individuals pursue. For example,
17repeated failures can be an effective signal that a goal is unachievable and that our efforts would
18be better expended pursuing alternative goals that offer a greater likelihood of success (Carver &
19Scheier, 2000). Narcissistic vulnerability may inhibit disengagement from precisely these types
20of goals because there is less confidence to accept or even embrace failure. Further, given that a
21central feature of narcissistic vulnerability is the need to be validated by others, it is conceivable
22that enhanced persistence only occurs for goals that make individuals look good in the eyes of
23others rather than goals that bring long-term fulfilment and are intrinsically rewarding. As a

1counter to this position, there is evidence that narcissistic vulnerability and grandiosity are both
2positively related to the ability to evaluate and compare alternative goal options to pursue the
3right one (Boldero et al., 2015). Thus, any moderating effect of vulnerability on grandiosity
4might retain, or even enhance, the appropriateness of goal pursuit. The effect of vulnerable
5narcissism on goal adaptiveness remains to be tested but is a promising direction for future
6research.

7**Limitations, Future Directions and Caveats**

8 Across three studies, we used multiple measures to tap trait and state persistence and
9reported effects whilst controlling for plausible alternative explanations such as socially
10desirable responding and self-esteem. However, future research would benefit from assessing the
11relationship between narcissism and persistence using behavioural measures and longitudinal
12designs that capture persistence over months or years.

13 Longitudinal designs may also be particularly important for capturing the dynamic effects
14of narcissistic states on motivation and behaviour, given the possibility that individuals may
15fluctuate between expressions of grandiosity and vulnerability (Miller et al., 2011; Ronningstam,
162009). Further, the goal domain may be highly relevant in determining persistence; for example,
17grandiose-narcissistic individuals may persist and achieve great things in their professional lives
18(because this brings admiration) whereas they might have far less success in their personal lives
19by maintaining healthy relationships.

20 Our claim that the combination of high narcissistic vulnerability and grandiosity lead to
21the highest levels of persistence also warrants some caution in light of the precise nature of the
22interactions. One could argue that the significant interaction effects in Studies 1-3 were driven
23mainly by the complete lack of persistence displayed by individuals who are high in narcissistic

1vulnerability and low in grandiosity. That is, in the absence of grandiosity, narcissistic
2vulnerability appears to be highly detrimental for persistence, which likely reflects the
3combination of a difficulty in dealing with setbacks and criticism and a lack of confidence
4required to believe that they can actually achieve goals (and thereby validate their self-worth).

5**Conclusion**

6 Our results provide a greater understanding of narcissists' persistence motivations, and
7provide the first evidence that narcissistic grandiosity and vulnerability operate as a complex
8dyad in explaining persistence. The results stress the importance for researchers to consider the
9interactive effects of both components of narcissism rather than either aspect in isolation.

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6 90.

1 **Appendix**

2 *Achievement setback.*

3 *Please think of a serious long-term job that you currently have, have had in the past, or*
4*would like to have in the future. Please try to imagine the scenario as vividly as possible. There*
5*is an exciting opportunity to gain a promotion at your work and you are focused on achieving it.*
6*You have the chance to impress your boss by giving a presentation. However, immediately after*
7*you finish the presentation, your boss pulls you aside and tells you that your presentation was*
8*horrible.*

9 *Interpersonal setback.*

10 *Please think of a serious committed romantic relationship that you currently have, have*
11*had in the past, or would like to have in the future. Please imagine the following scenario as*
12*vividly as possible. You are deeply in love with your romantic partner and you have been*
13*together for several years. However, you and your romantic partner have gotten into a fight*
14*during a party with some of your friends. Your partner is so angry with you that he/she tells you*
15*that you have not been an adequate partner, and that he/she is going to leave you.*