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

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Abstract

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

Keywords: Narcissism, Grandiose, Vulnerable, Persistence

1. I'll Get There Because I'm Great, or am I? Narcissistic Vulnerability Moderates the Narcissistic Grandiosity – Goal Persistence Relationship

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

1.1 Dimensional Nature of Narcissism

There is considerable disagreement regarding the dimensional nature of narcissism, with narcissism proposed to exist in forms that are covert and overt, adaptive and maladaptive, or normal and pathological (Cain, Pincus, & Ansell, 2008). However, in this paper we conceptualize narcissism with respect to the well-recognized components of narcissistic grandiosity and vulnerability (Miller et al., 2011, 2014; Miller & Campbell, 2008; Morf &

Rhodewalt, 2001; Pincus & Lukowitsky, 2010; Wink, 1991). Narcissistic grandiosity is characterized by feelings of entitlement, superiority, exploitativeness and exhibitionism, and is typically assessed using the self-report Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979). In contrast, narcissistic vulnerability reflects a more fragile expression of narcissism that is characterized by hostility (Clarke, Karlov, & Neale, 2015; Miller et al., 2011), hypersensitivity, social withdrawal (Dickinson & Pincus, 2003), and low explicit self-esteem (Miller et al., 2010).

While grandiosity and vulnerability are well established constructs, it is less clear, however, whether they reflect distinct or interrelated personality processes, as evidence exists for both accounts. From one perspective, grandiosity and vulnerability are proposed to have markedly different manifestations and theoretical origins. For example, through factor analysis of popular narcissism measures, Miller et al. (2011) argue that narcissistic grandiosity and vulnerability are distinct constructs expressed by different personality traits, interpersonal behaviour, and psychopathology. However, other (largely) psychodynamic theorizing holds that narcissistic grandiosity and vulnerability are interrelated, with these components co-existing within individuals (e.g., Morf & Rhodewalt, 2001; Pincus, Cain, & Wright, 2014; Pincus & Lukowitsky, 2010). For example, in Morf and Rhodewalt's (2001) cognitive-affective model of narcissism, the arrogance and aggrandizing behaviours associated with narcissistic grandiosity are driven by the need to stem a fragile and vulnerable self-concept. In contrast, recent attempts have also been made to synthesise these rather disparate approaches by proposing that narcissism is better understood when considered as a spectrum of dispositions and characteristics reflecting grandiosity and vulnerability, each anchored around the core construct of entitlement (Krizan & Herlache, 2017).

Regardless of one's theoretical position, these two expressions of narcissism are separable; narcissistic grandiosity and vulnerability are not mutually exclusive and measures of grandiosity and vulnerability are either uncorrelated (Hendin & Cheek, 1997; Luchner, Houston, Walker, & Houston, 2011), or have a weak positive relationship (Ng, Tam, & Shu, 2011). Given that researchers have emphasized the importance of considering both aspects of narcissism (e.g., Miller & Campbell, 2008), it is surprising that there is a dearth of literature considering the effects of both components, either independently or as an interacting dyad (for an exception see: Roche, Pincus, Conroy, Hyde, & Ram, 2013). Indeed, one area where the consideration of the interactive effects of these two components might be particularly relevant is goal persistence.

1.2 Narcissism and Persistence

The evidence for the relationship between narcissistic grandiosity and persistence is sparse and tentative, suggesting that narcissistic grandiosity may facilitate persistence in some circumstances but not in others (Wallace et al., 2009). For example, narcissistic grandiosity is positively associated with trait measures of persistence in clinical and non-clinical samples (Fossati et al., 2009), and individuals high in narcissistic grandiosity spend more time attempting unsolvable tasks in laboratory settings; however, this enhanced persistence only occurs when there are no alternative routes to self-enhancement (Wallace et al., 2009). Further, narcissistic grandiosity is associated with greater investment of effort in situations where successful performance affords personal glory (e.g., Wallace & Baumeister, 2002; Woodman, Roberts, Hardy, Callow, & Rogers, 2011). Under difficult circumstances, whereas others might perceive the situation as a threat, grandiose narcissists perceive these situations as an opportunity for glory and so persist to glorify their self-image (Wallace & Baumeister, 2002).

Pertinently, individuals who score highly on the NPI are typically characterized by traits that might support persistence. For example, narcissistic grandiosity is associated with heightened levels of optimism (Farwell & Wohlwend-Lloyd, 1998), a trait that may aid persistence through greater task engagement and more adaptive responses to setbacks (Carver, Scheier, & Segerstrom, 2010). Similarly, the high levels of confidence associated with narcissistic grandiosity (Campbell, Goodie, & Foster, 2004) may be adaptive for persistence because it endows individuals with greater expectation of their ability to maintain goal pursuit eventually succeed. Finally, narcissistic grandiosity is argued to be positively associated with explicit self-esteem (Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004), a dimension that is predictive of long-term goal persistence (e.g., Di Paula & Campbell, 2002).

However, possessing an unshakable confidence in one's capabilities may not always benefit persistence (e.g., Woodman, Akehurst, Hardy, & Beattie, 2010). For example, individuals may fail to appreciate the necessity of sustained effort on long-term goals and instead believe that success is achievable through their unique talents rather than via persistence. Similarly, the impulsive tendencies associated with narcissistic grandiosity (Vazire & Funder, 2006) may lead to the pursuit of short-term goals, to the detriment of long-term persistence. Alternatively, narcissistic grandiosity may discourage persistence because grandiose individuals perceive low self-control as an inherently desirable trait that illustrates their power and autonomy (Hart, Richardson, Tortoriello, & Tullett, 2017). Thus, grandiose narcissist's self-presentational use of self-control might lead them to be less willing to engage in persistence, especially if it involves publicly displaying constraint. Similarly, grandiose narcissist's may believe the ultimate expression of superiority is to be able to achieve high levels of performance without trying very hard. Thus, one might argue that high levels of persistence might lessen the opportunity for glory

one can gain in a task as it demonstrates that positive outcomes can only be achieved via engagement and hard work, as opposed to some exceptional ability that the narcissist possesses.

In summary, grandiosity alone may be insufficient for persistence. It is possible that narcissistic grandiosity only predicts the motivation to persist (i.e., pursue self-enhancement) when an individual's sense of superiority and self-worth is precarious. In this regard, the more fragile counterpart of narcissism may in fact be a key variable to aid persistence: narcissistic vulnerability. In other words, narcissistic grandiosity, in the complete absence of vulnerability, conveys a sense of being on a pedestal, and this illusion of grandeur associated with grandiosity might cause individuals to be weakly motivated to expend additional effort persisting on tasks to further boost their self-image (Roberts, Woodman, & Sedikides, 2017). Conversely, a degree of vulnerability, or sense of precariousness in the self, might be necessary to drive the strongest persistent. This is because only through the accomplishment of self-enhancing goals and achievements will individuals garner the approval of others and recognition of their superiority that is necessary to buffer their fragile ego. Furthermore, narcissistic vulnerability is associated with strong avoidance motivation, whereas narcissistic grandiosity is associated with strong approach and weak avoidance motivation (Foster & Trimm, 2008). Thus, individuals who possess a degree of narcissistic grandiosity and vulnerability may be both strongly motivated to approach desirable outcomes and strongly motivated to avoid negative outcomes. In other words, grandiosity and vulnerability may drive individuals to pursue their goals because of the potential for reward (i.e., admiration), and because they are highly worried about the possibility of failure and have strong motivations to avoid rejection. Empirically, this perspective is supported by evidence that (social) approach and avoidance motivations interact such that the highest levels of

engagement and effort in social situations is displayed by individuals who possess both strong approach and strong avoidance motivations (Nikitin & Freund, 2010).

Notably, although the fragility associated with narcissistic vulnerability might drive greater persistence for individuals who also possess a belief in their inherent superiority, narcissistic vulnerability alone may likely lead to the very lowest levels of persistence. If individuals who are high in narcissistic vulnerability rely on the approval of others to validate their self-worth (at least in the absence of grandiosity), yet at the same time lack personal efficacy and confidence, they might be more likely to withdraw and avoid environments where their self-beliefs are likely to be challenged or confronted (Dickinson & Pincus, 2003; Foster & Trimm, 2008). In support of this view, Fossati et al. (2009) found that narcissistic vulnerability was negatively related to persistence, although this effect was only evident within a sample of clinical participants; vulnerability was unrelated to persistence in a non-clinical sample.

1.3 Present Research

In three studies, we examined whether narcissistic vulnerability moderates the relationship between narcissistic grandiosity and goal-drive persistence. Based on the theorizing above, we predicted that narcissistic grandiosity would be positively related to persistence only when accompanied by moderate or high levels of narcissistic vulnerability. In the absence of vulnerability, we anticipated that narcissistic grandiosity would be unrelated to persistence. In Study 1 we examined the relationship between narcissistic vulnerability and grandiosity to predict trait persistence. In Study 2 we examined the relationship between narcissistic vulnerability and grandiosity to predict persistence whilst controlling for the possible effects of socially desirable responding. In Study 3 we assessed persistence whilst controlling for self-

esteem. That is, persistence was assessed using alternative trait measures for personally relevant goals and in response to setbacks in achievement and interpersonal domains.

2 Study 1 Methods

2.1 Participants

The sample comprised 338 participants (164 women, 174 men, M_{age} = 24.38, SD = 8.52); responses were combined from participants who completed the same measures either online (n = 230) or in person (n = 108). Two hundred and thirty participants responded to advertisements posted on social media and around the campus of a UK University; participants then completed the measures online after being directed to a questionnaire hosted on Bristol Online Survey (www.onlinesurveys.ac.uk). One hundred and ten participants completed the same measures on a paper version prior to completing an unrelated experiment. To ensure no individual participated in both versions, we asked participants to confirm they had not completed the other version and then confirmed their response by searching the data for duplicated student ID and email address. In the paper version, we excluded two participants for providing duplicate responses. To have adequate power (0.80) to detect a conservative effect size for the interaction, i.e., a Cohen's f^2 = .025 (Aguinis, Beaty, Boik, & Pierce, 2005), we required a minimum sample of 316 participants (G*Power 3; Faul, Erdfelder, Lang, & Buchner, 2007). Participants (online and in person) received course credit and the opportunity to win a cash prize (£20; equivalent to approximately US $25) for completing the questionnaires.

2.2 Measures

2.2.1 Narcissism.

In line with previous research (e.g., Boldero, Higgins, & Hulbert, 2015), we assessed narcissistic grandiosity and vulnerability using the Narcissistic Personality Inventory (Raskin &

Hall, 1979) and the Hypersensitive Narcissism Scale (Hendin & Cheek, 1997), respectively. The Narcissistic Personality Inventory (NPI) contains 40 forced-choice items, requiring participants to select the statement with which they most strongly agree, e.g., A: "I am no better or worse than most people" or B: "I think I am a special person". For each item, selection of the narcissistic statement was coded one and selection of the non-narcissistic statement was coded zero. In the present sample, the mean item score for the NPI was 0.33[1] (*SD* = 0.17) and the scale reliability was good (α = .88). The Hypersensitive Narcissism Scale (HSNS; Hendin & Cheek, 1997) is a ten-item measure of narcissistic vulnerability with good construct and criterion related validity that closely matches expert ratings of vulnerable narcissism (Miller et al., 2014). An example of an item is, "I often interpret the remarks of others in a personal way". Responses were measured on a five-point scale from 1 (*very uncharacteristic, strongly disagree*) to 5 (*very characteristic, strongly agree*). The mean item score in present sample was 2.83 (*SD* = 0.62) and demonstrated good scale reliability (α = .74).

2.2.2 Goal-Drive Persistence.

We used the Reinforcement Sensitivity Theory Personality Questionnaire (RST-PQ; Corr & Cooper, 2016) to examine goal-drive persistence. Seven items assessed goal-drive persistence, for example, "I often overcome hurdles to achieve my ambitions". Responses were measured on a four-point scale from 1 (*not at all*) to 4 (*highly*). In the present sample, the mean item score was 3.15 (*SD* = 0.63) and scale reliability was good, (α = .87)[2].

2.3 Analysis

[1] Total score for the NPI (*M* = 13.2, *SD* = 6.8)

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

We used moderated hierarchical regression to test the interactive effects of narcissistic grandiosity and vulnerability on goal-drive persistence. We used bias corrected bootstrap confidence intervals with unstandardized regression coefficients in PROCESS (Model 1) for SPSS (Hayes, 2013). In PROCESS, all variables are entered together in a single step and main effects are conditional on setting all other variables to their mean. Further, we mean-centred narcissistic grandiosity and vulnerability scores prior to analysis. Because narcissism scores have been shown to differ for males and females, and to be age dependent (Tschanz, Morf, & Turner, 1998), we entered sex and age as covariates in our model. There were seven, single, missing data points across the sample of 338 participants; this reflected 0.036% of total responses. For these seven participants, we calculated their mean item score for the narcissism and persistence variables based on the responses provided.

3 Results

Supporting the position that narcissistic grandiosity and vulnerability are not mutually exclusive, they were modestly related in Study 1 (r = .16, p = .004). The regression model with narcissistic grandiosity and vulnerability as predictors explained 11.6% of the total variance in goal-drive persistence (see Table 1). After controlling for the effects of all other variables, the conditional main effect of narcissistic grandiosity on goal-drive persistence was positive (β = 1.54, $p < .001$), and the effect of vulnerability was negative (β = -0.16, p = .003). Importantly, narcissistic vulnerability moderated the relationship between grandiosity and goal-drive persistence, ΔF (1, 332) = 7.60, ΔR^2 = .02, β = 0.83, p = .006, 95% CI [0.24, 1.42], Cohen's f^2 = .02 (see Figure 1). Simple slopes analysis revealed a statistically significant positive relationship between narcissistic grandiosity and goal-drive persistence when narcissistic vulnerability was high, t(332) = 6.47, β = 1.54, $p < .001$, 95% CI [1.07, 2.00], and a positive non-significant

relationship when narcissistic vulnerability was low, $t(332) = 1.68$, $\beta = 0.51$, $p = .09$, 95% CI [-0.09, 1.10].

[TABLE 1 HERE]

[FIGURE 1 HERE]

4 Discussion

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

5 Study 2

Given that Study 1 was the first test of the interplay between grandiose and vulnerable narcissism on persistence, the primary aim of Study 2 was to replicate the effects of Study 1. However, one might also argue that the results in Study 1 could be explained (in part) by narcissists' self-deceptive responses (e.g., Raskin, Novacek, & Hogan, 1991). According to accepted theoretical perspectives (Morf & Rhodewalt, 2001) narcissistic individuals may engage in ego-protection strategies when completing self-report measures, potentially motivating them to respond to items based on whether they reflect positive (or socially desirable) qualities, rather than answering truthfully. This theoretical perspective underscores the importance of controlling for socially desirable responding in narcissism research. In the present research, individuals who display the highest levels of narcissistic grandiosity and vulnerability may be the most likely to feel the need to protect their ego by responding strongly to the items associated with goal-drive persistence because persistence may reflect desirable qualities. However, there have been limited research efforts to control for socially desirable responding when examining narcissist's self-

report responses and these have revealed mixed effects. In one study (Foster & Trimm, 2008) found only a weak non-significant relationship between narcissism and socially desirable responding, whereas recent work identified a negative relationship between narcissistic grandiosity and social desirability (Jones, Woodman, Barlow, & Roberts, 2017). While this result potentially suggests that narcissists may not always engage in socially desirable responding, the lack of empirical evidence coupled with strong theoretical rationale suggests that it is an important methodological consideration. Consequently, in Study 2, we examined whether vulnerability moderated the relationship between grandiosity and persistence, whilst controlling for impression management and self-deceptive enhancement in a sample of non-student participants.

6 Methods

6.1 Participants

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

6.2 Measures

6.2.1 Narcissism and Persistence.

We used the same measures to assess narcissistic grandiosity (NPI[3]; α = .86, M = 0.25, SD = 0.16), narcissistic vulnerability (HSNS; α = .81, M = 2.86, SD = 0.64) and persistence (RST-PQ: GDP; α = .88, M = 2.83, SD = 0.68) as we used in Study 1.

6.2.2 Attention.

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

6.2.3 Desirable responding.

To control for response bias, participants completed the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984). The BIDR contains 40 items, assessing two aspects of desirable responding: Impression Management (IM) and Self-Deceptive Enhancement (SDE). Any responses of six or above (on a scale ranging 1-7) were scored with one point such that IM and SDE could each have a maximum of 20. IM (α = .85, M_{total} = 6.95, SD = 4.59) reflects whether respondents are answering honestly, e.g. "Once in a while I laugh at a dirty joke". SDE (α = .85, M_{total} = 5.99, SD = 4.37) assesses the degree to which respondents give honest answers but are positively biased, e.g. "I am a completely rational person".

6.3 Analysis

[3] Total score for the NPI (M = 10.0, SD = 6.4)

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

7 Results

Narcissistic grandiosity had a weak negative relationship with impression management and a weak positive relationship with self-deceptive enhancement (see Table 2). Narcissistic vulnerability had a strong negative relationship with impression management and self-deceptive enhancement. Further, both impression management and self-deceptive enhancement were positively associated with goal-drive persistence.

[TABLE 2 HERE]

Replicating the results of Study 1, narcissistic vulnerability moderated the effect of grandiosity on goal-drive persistence (see Table 3). After entering age, sex, self-deceptive enhancement and impression management as covariates, the vulnerability × grandiosity interaction was marginal, ΔF (1, 191) = 3.61, ΔR^2 = .02, β = 0.84, p = .074, f^2 = .02. However, because we had a strong *a priori* expectation of the directional nature of post-hoc effects, we conducted simple slopes analysis. This revealed a statistically significant positive relationship between narcissistic grandiosity and goal-drive persistence when narcissistic vulnerability was high, t(191) = 4.06, β = 1.86, p < .001, 95% CI [0.96, 2.77] but no statistically significant relationship when narcissistic vulnerability was low, t(191) = 1.57, β = 0.73, p = .117, 95% CI [-0.19, 1.64], see Figure 2. Self-deceptive enhancement was a significant predictor of persistence, whereas age, impression management, and sex, were each unrelated to persistence.

[TABLE 3 HERE]

[FIGURE 2 HERE]

8 Discussion

The results of Study 2 largely replicate those in Study 1 and offer additional support that narcissistic vulnerability moderates the grandiosity-persistence relationship. However, some degree of caution is warranted given that the interaction effect was not statistically significant at conventional levels. The results in Study 2 also suggest that the moderation effects in Study 1 cannot be explained by desirable responding. In other words, narcissistic vulnerability does not motivate individuals to respond in a more socially desirable manner and therefore report heightened persistence. In fact, the opposite was true and vulnerability was negatively related to socially desirable responding. These results are consistent with recent findings by Hart and colleagues who also suggested that this negative relationship might reflect either low socially desirable responding in individuals who are high in narcissistic vulnerability or, alternatively, may point to the fact that biases in socially desirable responding may influence responding on the HSNS (Hart, Adams, Burton, & Tortoriello, 2017). In other words, people who are unconcerned about responding in a positive light are more likely to agree with the socially undesirable qualities described in items in the HSNS. Conversely, evidence that grandiosity was negatively related to impression management and positively related to self-deceptive enhancement is consistent with a theoretical perspective of narcissists being somewhat less likely to respond honestly and being motivated to look good in the eyes of others.

9 Study 3

Studies 1 and 2 demonstrate a relatively consistent effect of vulnerability as a moderator of the grandiosity – persistence relationship, and Study 2 demonstrates that this effect is independent of social desirability. Despite the consistency of this effect, it is constrained by a reliance on a single measure of persistence across both studies the smaller sample size in Study 2

afforded insufficient power to detect the presence of a significant interaction effect. To address this limitation in Study 3, a large sample of participants completed two additional measures to assess constructs related to persistence: industriousness and perseverance. Further, we extended the assessment of persistence by examining motivations to persist towards personally relevant, real-life goals. Finally, we examined persistence following setbacks. Persistence towards goals is rarely without setbacks and setbacks may be particularly salient if they threaten a person's self-worth. In Study 3, we presented participants with two vignettes that described threatening setbacks within either an achievement domain or an interpersonal domain. The distinction between achievement and interpersonal goals is potentially important because grandiosity and vulnerability have been associated with different emotional responses to setbacks in each domain (Besser & Priel, 2010). More specifically, narcissistic grandiosity predicts greater negative affect to thwarted achievement, whereas narcissistic vulnerability is more sensitive to interpersonal threats. Consequently, narcissistic vulnerability might not moderate the grandiosity – persistence relationship in interpersonal domains, because persistence here does not necessarily reinforce the superiority that is craved by individuals who are high in narcissistic grandiosity. Indeed, previous theorizing has suggested that narcissists aspire to achieve and be admired more than to be liked (e.g., Morf & Rhodewalt, 2001)

Finally, self-esteem is an important variable with relevance for both narcissism and persistence. Self-esteem is positively associated with task persistence and persistence on long-term goals (e.g., Di Paula & Campbell, 2002), although high self-esteem individuals also appear to be more adaptive in their persistence and disengage more rapidly following repeated failure on unsolvable tasks (e.g., Di Paula & Campbell, 2002; Mcfarlin, Baumeister, & Blascovich, 1984)

Further, there is often considerable overlap between the constructs of narcissism and self-esteem (Sedikides et al., 2004); narcissistic grandiosity typically has a moderate-to-strong correlation with self-esteem whereas narcissistic vulnerability typically exhibits a strong negative correlation with self-esteem (Rose, 2002). Thus, it could be the case that low self-esteem (rather than narcissistic vulnerability) is responsible for the observed effects on persistence. Because of this overlap, researchers have advocated the need to control for the effects of self-esteem when trying to understand the unique contributions of narcissism (e.g., Brown & Bosson, 2001; Rosenthal & Hooley, 2010). Consequently, we controlled for self-esteem in all analyses in Study 3.

10 Methods

10.1 Participants

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

10.2 Measures

10.2.1 Narcissism and self-esteem.

Consistent with Studies 1 and 2, we assessed narcissistic grandiosity and vulnerability using the NPI[4], (M = 0.28, SD = 0.20) and HSNS (M = 2.79, SD = 0.69), respectively. We assessed trait self-esteem using the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965). The RSE is an established measure of self-esteem and contains ten items with a 1-4 response scale that assesses one general factor of self-esteem. An example item from the RSE is, "On the

[4] Total score for the NPI (M = 11.2, SD = 8.0)

whole, I am satisfied with myself." Means, ranges, standard deviations and scale reliability are presented in Table 4.

10.2.2 Trait persistence.

Participants completed the 7-item goal-drive persistence scale used in Studies 1 and 2. Participants also completed two measures that included items from the International Personality Item Pool (Goldberg, 1999). A 10-item Industriousness (IND) scale included items such as, "Work Hard". An 8-item Industry/Perseverance/Persistence (IPP) scale included items such as, "Don't quit a task before it is finished". Responses to both scales were measured on a five-point scale from 1 (*very inaccurate*) to 5 (*very accurate*); means, standard deviations and alphas can be found in Table 4.

10.2.3 Personal goals.

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

10.2.4 Goal setbacks.

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

10.3 Analysis

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

11 Results

Consistent with Studies 1 and 2, narcissistic grandiosity and vulnerability were modestly correlated (r = .15, p = .004). Narcissistic grandiosity was positively related to all trait measures of persistence but unrelated to persistence measures for personal goals or following setbacks (see Table 4). In contrast, narcissistic vulnerability predicted lower persistence across all measures. Self-esteem was positively related to narcissistic grandiosity (r = .16, p = .001) and negatively related to narcissistic vulnerability (r = -.46, p < .001). Notably, self-esteem correlated strongly with all forms of persistence assessed in Study 3: trait persistence (r =.55, p < .001), goal persistence (r =.39, p < .001), and following interpersonal (r =.23, p < .001) and achievement setbacks (r =.31, p < .001).

[TABLE 4 HERE]

11.1 Trait Persistence

Using moderated regression without entering any covariates, narcissistic grandiosity and vulnerability interacted to predict all three trait measures of persistence: GDP ΔF (1, 368) = 3.99, ΔR^2 = .01, β = 0.38, p = .047, 95% CI [0.01, 0.76]; IND, ΔF (1, 368) = 7.46, ΔR^2 = .02, β = 0.61, p = .006, 95% CI [0.17, 1.06]; and IPP, ΔF (1, 368) = 8.75, ΔR^2 = .02, β = .71, p = .003, 95% CI [0.24, 1.17]. Because the pattern of interaction was the same for each measure of trait persistence, we standardized scores for each measure and combined them to create a composite Trait Persistence variable. After including self-esteem, age and sex as covariates, the grandiosity

× vulnerability interaction revealed that narcissistic grandiosity was unrelated to Trait Persistence when narcissistic vulnerability was low, $t(365) = 0.75$, $\beta = 0.68$, $p = .452$, 95% CI [-1.09, 2.45] and positively related when narcissistic vulnerability was high, $t(365) = 3.58$, $\beta = 2.78$, $p < .001$, 95% CI [1.25, 4.30] (see Figure 3).

[FIGURE 3 HERE]

[TABLE 5 HERE]

11.2 Personal Goal Persistence.

Narcissistic vulnerability moderated the effect of grandiosity on persistence for personal goals. The vulnerability × grandiosity interaction was statistically significant, even after accounting for the effects of self-esteem, $\Delta F\ (1, 365) = 5.39$, $\Delta R^2 = .01$, $\beta = 1.30$, $p = .024$, 95% CI [0.17, 2.43]; again, the conditional main effect of self-esteem predicted persistence (see Table 5). Simple slopes analysis revealed a positive relationship between narcissistic grandiosity and persistence when narcissistic vulnerability was high, $t\ (365) = 1.41$, $\beta = 0.77$, $p = .158$, 95% CI [-0.30, 1.83]; there was a negative relationship when narcissistic vulnerability was low, $t\ (365) = -1.71$, $\beta = -1.07$, $p = .089$, 95% CI [-2.31, 0.16] (see Figure 4); although neither slope was statistically significant.

[FIGURE 4 HERE]

11.3 Goal Persistence Following Setbacks

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

11.4 Achievement Goal Persistence.

Narcissistic vulnerability moderated the relationship between grandiosity and the motivation to persist on an achievement goal, despite receiving a threatening setback. After including self-esteem as a predictor, the interaction was statistically significant, ΔF (1, 365) = 4.19, ΔR^2 = .01, β = 0.60, p = .040, 95% CI [0.03, 1.17]. Simple slopes analysis revealed a positive relationship between narcissistic grandiosity and goal-drive persistence when narcissistic vulnerability was high, t(365) = 2.33, β = 0.64, p = .021, 95% CI [0.10, 1.18]. In contrast narcissistic grandiosity was unrelated to persistence when narcissistic vulnerability was low, t(365) = -.57, β = -0.18, p = .567, 95% CI [-0.81, 0.44]; see Figure 5.

[FIGURE 5 HERE]

[TABLE 6 HERE]

11.5 Interpersonal Goal Persistence.

Narcissistic vulnerability did not moderate the effect of grandiosity on persistence intentions following an interpersonal rejection, ΔF (1, 365) = 0.46, ΔR^2 = .00, β = 0.20, p = .425, 95% CI [-0.29, 0.70]. The conditional main effects in the model revealed that narcissistic grandiosity predicted significantly less persistence whereas narcissistic vulnerability was unrelated to persistence (see Table 6).

12 Discussion

The results of Study 3 confirm the main findings from Studies 1 and 2. The moderating effect of vulnerability on the grandiosity – persistence relationship was consistent across different measures of trait persistence, and for persistence towards personally relevant goals. Further, an alternative explanation for the results in Studies 1 and 2 was that low self-esteem, rather than anything unique to narcissistic vulnerability was driving the effects observed. However, the interaction between grandiosity and vulnerability remained in Study 3, even after

controlling for the effects of self-esteem by covarying it out, suggesting that the results from Studies 1 and 2 cannot be explained more simply by the effect of self-esteem.

13 General Discussion

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

Narcissistic vulnerability moderated the effect of grandiosity on trait persistence (Studies 1-3) 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 route to the public self-enhancement they crave and narcissists are more likely to prioritize their personal successes rather than interpersonal relationships in their pursuit of admiration (e.g.,

Ong, Roberts, Arthur, Woodman, & Akehurst, 2016). Indeed, individuals high in narcissistic grandiosity are likely to treat people and relationships as objects of their desire, and when they no longer fulfil their purpose (to admire and please), then they are promptly discarded. In contrast, the absence of a relationship between vulnerable narcissism and relationship persistence is more difficult to interpret. Although vulnerable-narcissistic individuals feel greater shame and negative affect in response to interpersonal setbacks (Besser & Priel, 2009), their response may depend on whether they perceive their self-worth can be best salvaged through passively withdrawing from the relationship or persisting to try and avoid further hurt; this perspective is worthy of future examination.

Despite finding evidence that narcissistic vulnerability combined with high levels of grandiosity, leads to increased persistence, this does not imply that the moderating effect of vulnerability is necessarily adaptive, or beneficial. This is because our results do not speak to whether the moderating effect of narcissistic vulnerability influences the appropriateness of the goals that narcissistic individuals pursue. For example, repeated failures can be an effective signal that a goal is unachievable and that our efforts would be better expended pursuing alternative goals that offer a greater likelihood of success (Carver & Scheier, 2000). Narcissistic vulnerability may inhibit disengagement from precisely these types of goals because there is less confidence to accept or even embrace failure. Further, given that a central feature of narcissistic vulnerability is the need to be validated by others, it is conceivable that enhanced persistence only occurs for goals that make individuals look good in the eyes of others rather than goals that bring long-term fulfilment and are intrinsically rewarding. As a counter to this position, there is evidence that narcissistic vulnerability and grandiosity are both positively related to the ability to evaluate and compare alternative goal options to pursue the right one (Boldero et al., 2015).

Thus, any moderating effect of vulnerability on grandiosity might retain, or even enhance, the appropriateness of goal pursuit. The effect of vulnerable narcissism on goal adaptiveness remains to be tested but is a promising direction for future research.

13.1 Future Directions and Caveats

Across three studies, we used multiple measures to tap trait and state persistence and reported effects whilst controlling for plausible alternative explanations such as socially desirable responding and self-esteem. However, a notable limitation of the present research is the reliance on cross-sectional measures that assess self-reported motivations to engage in persistence towards goals, and caution is warranted before considering the applicability of these effects to behaviour. In this regard, future efforts would benefit from assessing the relationship between narcissistic dimensions and behavioural tasks that measure persistence (e.g., time spent attempting unsolvable tasks: Aspinwall & Richter, 1999; Wallace et al., 2009). Longitudinal designs that consider persistence over months or years may also be particularly important for capturing the dynamic effects of narcissistic states on motivation and behaviour, given the possibility that individuals may fluctuate between expressions of grandiosity and vulnerability (Ronningstam, 2009).

Our assessment of narcissism also relied on scales that, although commonly used, have received criticism regarding precisely what they measure (Ackerman et al., 2011) and future work incorporating additional methods of assessing narcissistic grandiosity and vulnerability would be useful for further understanding the construct of narcissism. For example, certain aspects (e.g., entitlement) of narcissistic vulnerability may be better captured through the use of extended measures (Cheek, Hendin, & Wink, 2013), clinical interviews could be used to obtain more objective data on narcissism, and measures tapping into components of narcissistic

admiration and rivalry (Back et al., 2013) may be especially useful for understanding the cognitive, affective and behavioural responses relevant for persistence. Similarly, we limited our consideration to the agentic form of grandiose narcissism in the present research; whereas, it may also be important to consider communal narcissism (Gebauer, Sedikides, Verplanken, & Maio, 2012) in future efforts. Communal narcissism refers to individuals who pursue self-motives through communal means (e.g., helping others) and therefore may be relevant for explaining persistence in interpersonal domains that involve demonstration of their helpfulness and trustworthiness, etc. This may also go some way to understanding why we do not see the moderating effect of narcissistic vulnerability for agentic narcissistic grandiosity in response to the relationship setback in Study 3. Indeed, the goal domain may be highly relevant in determining persistence; for example, grandiose-narcissistic individuals may persist and achieve great things in their professional lives (because this brings them admiration) whereas they might have far less success in their personal lives by persisting in the maintenance of healthy relationships. Thus, perhaps the moderating effect of vulnerability is dependent on matching the type of grandiose narcissism with the situation; this suggestion is worthy of empirical investigation in the future.

Our claim that the combination of high narcissistic vulnerability and grandiosity lead to the highest levels of persistence also warrants some caution considering the precise nature of the interactions. Although we favour the interpretation presented thus far, one could reasonably argue that the significant interaction effects in Studies 1-3 were driven mainly by the complete lack of persistence displayed by individuals who are high in narcissistic vulnerability and low in grandiosity. That is, in the absence of grandiosity, narcissistic vulnerability appears to be highly detrimental for persistence, which likely reflects the combination of a difficulty in dealing with

setbacks and criticism and a lack of confidence required to believe that they can achieve goals (and thereby validate their self-worth).

13.2 Conclusion

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

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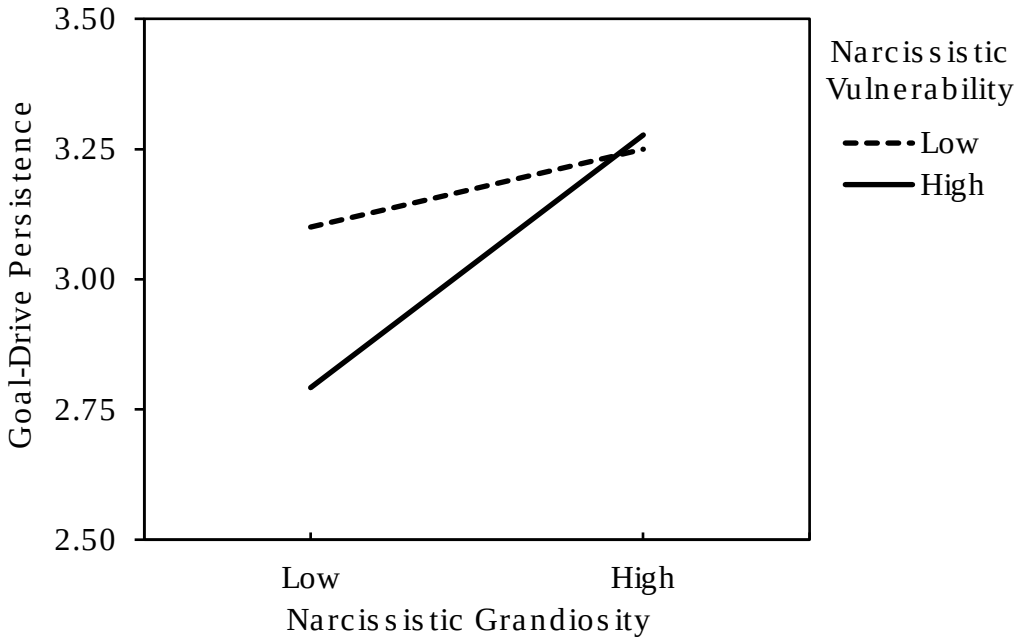
Figures



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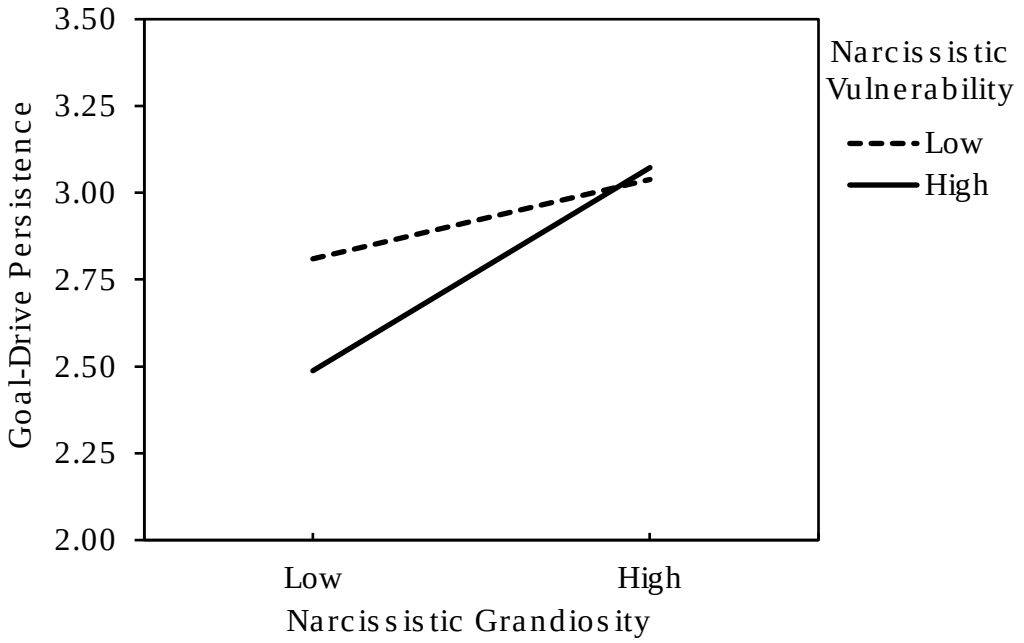
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Goal-Drive Persistence
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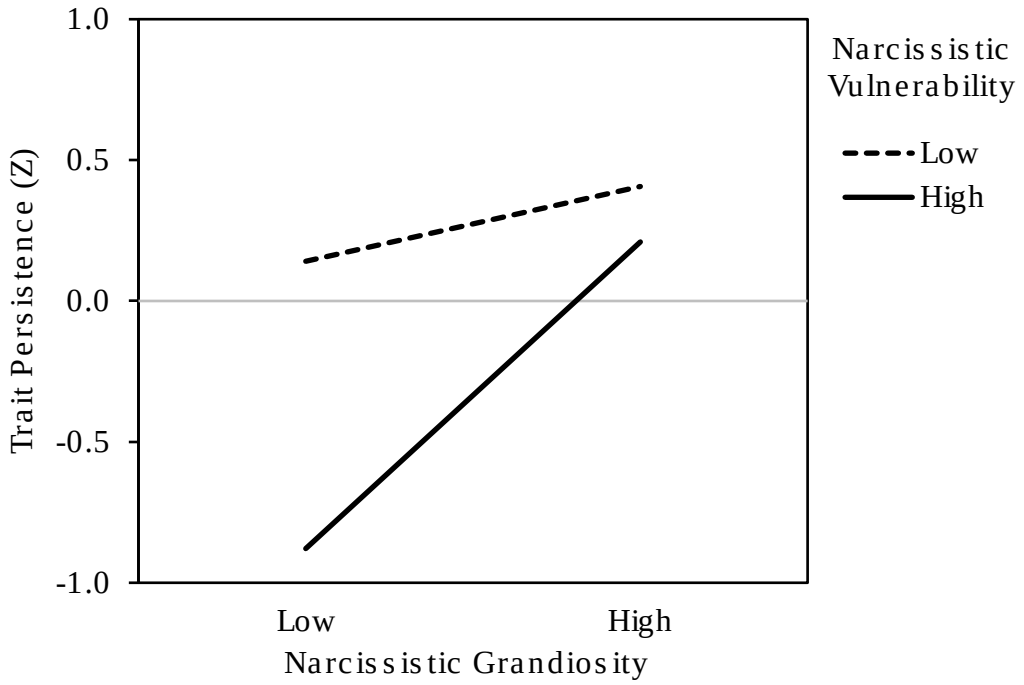
Narcissistic Grandiosity
Narcissistic Vulnerability
Low
High

1

2 Figure 2.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Trait Persistence (Z)
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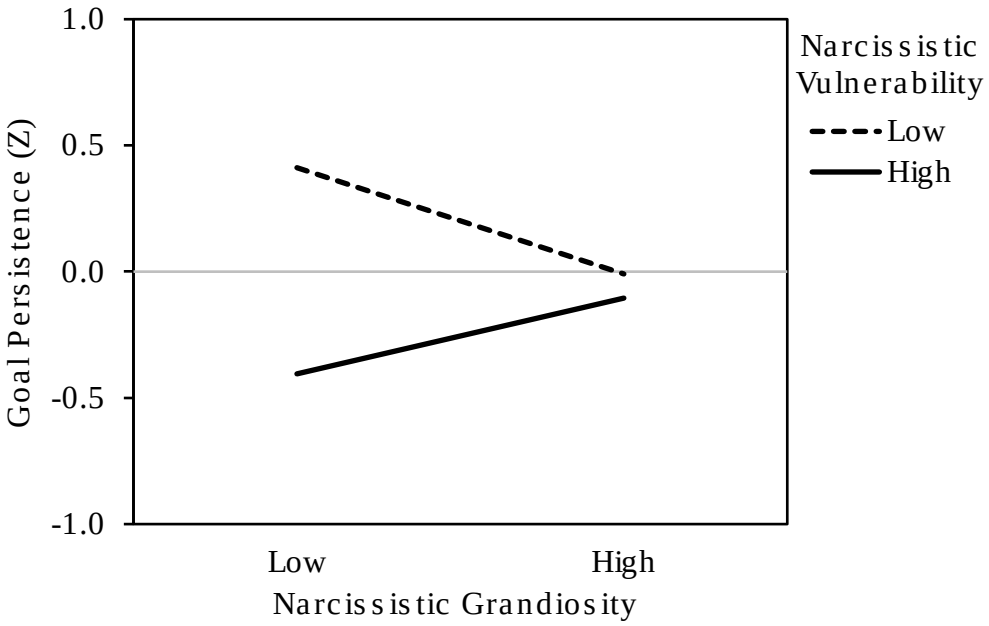
Narcissistic Grandiosity
Narcissistic Vulnerability
Low
High

Figure 3.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Goal Persistence (Z)
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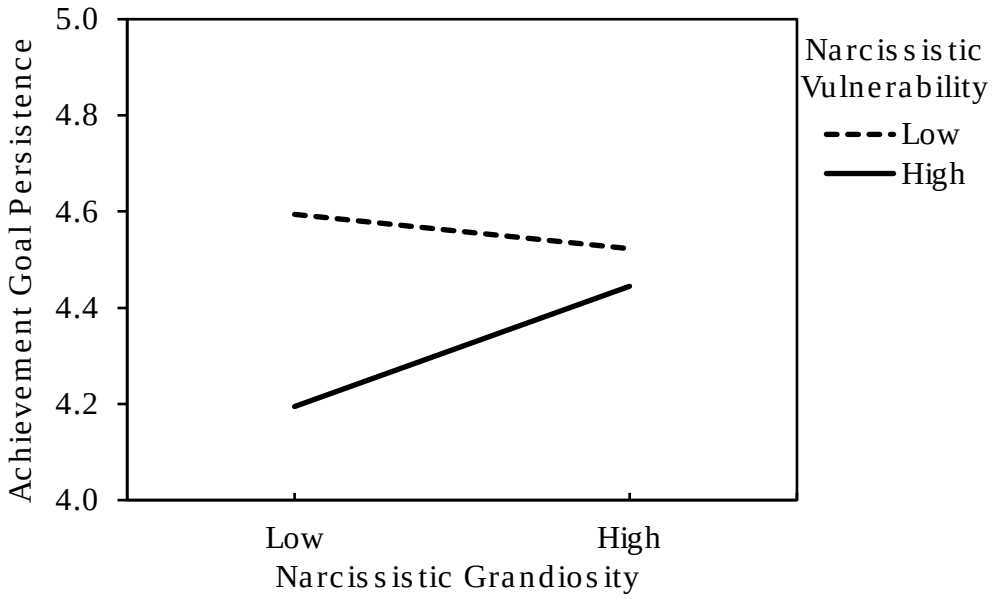
Narcissistic Grandiosity
Narcissistic Vulnerability
Low
High

Figure 4.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Achievement Goal Persistence
Low
High
Narcissistic Grandiosity
Narcissistic Vulnerability
Low
High

1

2 Figure 5.

Figure Captions

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

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

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

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

Figure 5. Interaction between narcissistic grandiosity and vulnerability to predict achievement goal persistence in Study 3. Achievement goal persistence is the mean item score on a 5-item

measure of persistence. Trait self-esteem was entered in the regression model as a covariate. Lines are plotted for hypothetical individuals who are 1 *SD* above (solid) and 1 *SD* below (dashed) the mean.

Tables

Table 1

Moderated 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 × 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

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

Table 2

Zero-order correlations for narcissistic dimensions, socially desirable responding, persistence, age and sex in Study 2.

Measure	1.	2.	3.	4.	5.	6.	7.
1. NPI	-						
2. HSNS	.12	-					
3. Impression Management	-.18*	-.42**	-				
4. Self-Deceptive Enhancement	.17*	-.47**	.61**	-			
5. Goal-Drive Persistence	.32**	-.17*	.21**	.35**	-		
6. Age	-.29**	-.39**	.35**	.27**	-.07	-	
7. Sex	.01	-.05	.36**	.19**	.13	-.06	-

Note. NPI = Narcissistic Personality Inventory, HSNS = Hypersensitive Narcissism Scale; Sex coded: 0 = men, 1 = women.
* $p < .05$, ** $p < .01$

Table 3

Moderated 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 × 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

Note. (*N* = 199), Sex coded: 0 = men, 1 = women. 95% CI are confidence intervals, [lower limit, upper limit], SE = standard error.

Table 4

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

	Narcissism Component					
	Grandiosity	Vulnerability	*M*	*SD*	*Range*	α
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

Note. Mean-item scores are reported for each scale, α = Cronbach's alpha. Narcissistic grandiosity and vulnerability were measured using the 40-item Narcissism Personality Inventory and 10-item Hypersensitive Narcissism Scale, respectively. GDP is the 7-item, goal-drive persistence scale from the Reinforcement Sensitivity Theory Questionnaire. Items from the International Personality Item Pool reflect Industriousness (IND) and Industry, Perseverance, Persistence (IPP). Goal persistence reflects responses to a 4-item measure of persistence motivation for two personal goals that individuals are currently, or about to start, pursuing. The same 4-item measure assessed persistence motivation following setbacks within an achievement (job promotion) or interpersonal (romantic relationship), goal environment. Scores on the Rosenberg Self-Esteem Scale indicate trait self-esteem.

* $p < .05$.

Table 5

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

	β	*95% CI*	*SE*	*t*	*p*
Trait Persistence					
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
Goal Persistence					
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

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

Table 6

Moderated regression analysis to predict persistence following achievement and interpersonal goal setbacks in Study 3.

	β	*SE*	*t*	*p*	*95% CI*
Achievement Goal Persistence					
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 × 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]
Interpersonal Goal Persistence					
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 × 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]

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