



Do bigger egos mean bigger presence? Facets of grandiose narcissism and mindfulness

Ramzi Fatfouta¹ · Peter Eric Heinze²

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Abstract

Broad sections of the population try to be more mindful, often with quite self-centered motives. It is therefore not surprising that there is growing interest in the investigation of narcissism and mindfulness. Despite theoretical and empirical ties, however, existing research on this association is scarce. In two studies ($N = 3,134$ and 403) with English- and German-speaking participants, we apply structural equation modeling (SEM) to examine the relationships between facets of grandiose narcissism and trait mindfulness. Across both studies and, using different narcissism and mindfulness measures, SEM consistently revealed opposing patterns for agentic and antagonistic narcissism, with agentic narcissism being positively related to trait mindfulness, and antagonistic narcissism being negatively related to it. Findings highlight the necessity to acknowledge the conceptual heterogeneity of narcissism when examining its relationship with trait mindfulness. Practical implications regarding how agentic and antagonistic narcissists might profit differently from mindfulness practice are discussed.

Keywords Narcissism · Mindfulness · Meditation · Structural equation modeling · Self-enhancement

Introduction

Initially inspired by Buddhist tradition and practice, mindfulness has become increasingly popular in mainstream culture and research alike (e.g., Kabat-Zinn & Hanh 2009). For example, mindfulness applications (apps) are highly popular and regularly rank among the most downloaded mobile apps (Statista, 2017). Beyond meditation and mindfulness practice, individual differences in mindfulness as a present-focused attention and awareness have been shown to yield multiple benefits across various life domains, such as health-related behavior, interpersonal skills, or job performance (for meta-analyses, see Eberth & Sedlmeier 2012; Mesmer-Magnus et al., 2017).

Mindfulness is assumed to curb self-enhancement (Carlson, 2013), but may have the paradoxical effect of inflating feelings of self-importance (“paradox of self-enhancement”; Vonk & Visser 2021). According to these authors, activities

and apps that are supposed to help people prevent self-centeredness may in fact inflate their egos. Recent experimental research supports this notion as well, showing that mind-body practices may actually increase self-enhancement, including narcissism (Gebauer et al., 2018; Vaughan-Johnston et al., 2021). Although these findings are obviously fascinating, there has been insufficient cross-sectional research on the basic relationship between narcissism and mindfulness. Adopting a trait perspective, an important open question is: How and to what extent are these two constructs related?

Inspired by the strength-based approach of positive psychological research, scholars began to be interested in how narcissism may relate to adaptive personality traits, including mindfulness (e.g., Ridderinkhof et al., 2017). Because one purpose of mindfulness is to “quiet the ego” (Brown et al., 2007, p. 212), it seems plausible that it should somehow be related to narcissistic functioning. Here, we adopt a multidimensional view of narcissism and show that the narcissism-mindfulness relationship is less straightforward than initially assumed and differs according to which subfacet of narcissism is taken into account. We discuss the implications of this finding and elaborate on how narcissistic individuals may potentially benefit from mindfulness.

✉ Ramzi Fatfouta
r.fatfouta@gmail.com

¹ HMKW Hochschule für Medien, Kommunikation und Wirtschaft, University of Applied Sciences in Berlin, Ackerstraße 76, 13355 Berlin, Germany

² University of Potsdam, Potsdam, Germany

Our research makes several novel contributions to research on narcissism and mindfulness. First, we specifically focus on narcissism as the prototypical “self-enhancer personality” (Morf et al., 2011, p. 399) rather than self-enhancement in general (e.g., how much one’s self-views depart from a comparison criterion).¹ This focus is particularly useful for understanding the specific role of the grandiose self in mindfulness. Second, we answer recent calls for research going beyond examinations of narcissism as a unitary (i.e., unidimensional) construct to scrutinize its multiple facets (Miller et al., 2021; Sedikides, 2020). Adopting a multidimensional view of narcissism is crucial for theory development and, moreover, holds the potential to uncover informative facet-level differences with respect to mindfulness. Third, we provide a conceptual replication of our main hypothesis by demonstrating that the results persist across different operationalizations of grandiose (agentic vs. antagonistic) narcissism and mindfulness. Hence, our research lays the groundwork for future studies investigating other conceptualizations of narcissism and their relation to mindfulness.

The Dual Nature of Narcissism: Agentic and Antagonistic Narcissism

Narcissism can be conceptualized either as a personality disorder (i.e., Narcissistic Personality Disorder; Association 2013) or as a personality trait. In social/personality psychology (Morf & Rhodewalt, 2001), (trait) narcissism is usually conceptualized as a continuous (or, dimensional) personality variable in the normal population. Accordingly, individuals can vary along a continuum from low to high narcissism. Throughout the article, we focus on grandiose narcissism rather than vulnerable narcissism, which is especially important when investigating clinical manifestations of narcissism (e.g. Miller & Campbell 2008). Narcissism can be characterized by a motivation to build and maintain a grandiose self-view (Rhodewalt & Peterson, 2009) and has frequently been referred to as a “mixed blessing” (Paulhus, 1998, p. 1207): On the one hand, narcissism is associated with positive aspects such as self-esteem, charisma, and leadership emergence (Bosson et al., 2008; Grijalva et al., 2015; Rogoza & Fatfouta, 2020). Yet, on the other hand, narcissism is associated with negative aspects such as feelings of entitlement, aggression, and lack of empathy (Bushman & Baumeister, 1998; Exline et al., 2004; Fatfouta et al., 2022; Hepper et al., 2014).

¹ Narcissism and self-enhancement are related, yet distinct, constructs. Specifically, individuals differ in their tendency to self-enhance and narcissism is a fundamental characteristic of this tendency (Grijalva & Zhang, 2016).

Traditionally, narcissism was conceived of as a unidimensional construct, referring to inflated self-views (e.g., Morf & Rhodewalt, 2001; Paulhus & Williams, 2002). In recent years, however, it has been increasingly acknowledged that narcissism is best viewed as multidimensional (Back et al., 2013; Krizan & Herlache, 2018; Miller & Campbell, 2008; Sedikides, 2020). A prime advantage of this multidimensional view lies in its ability to explain the aforementioned contradictory and seemingly paradoxical correlates of narcissism. On the one hand, narcissism consists of an agentic facet containing characteristics, such as exhibitionism, self-promotion, and authoritativeness (e.g., Back et al., 2013; Crowe et al., 2019). On the other hand, narcissism consists of an antagonistic facet containing characteristics, such as entitlement, exploitativeness, and antisocial tendencies (Ackerman et al., 2011; Back et al., 2013; Crowe et al., 2019). Thus, agentic narcissism refers to the tendency to actively enhance the self, while antagonistic narcissism refers to the tendency to protect it from (potential) threats (also see Sedikides, 2020). Although positively associated, agentic and antagonistic narcissism have been shown to be sufficiently distinct from each other (e.g., Back et al., 2013; Sedikides, 2020). Taken together, a multidimensional approach towards narcissism allows for a more differentiated understanding that we consider being particularly promising with respect to the narcissism-mindfulness relationship.

Narcissism and Mindfulness: A Facet-Level Approach

In general, mindfulness can be defined as moment-to-moment awareness of present happenings in both physiological and psychological domains, without judgment or criticism (Kabat-Zinn & Hanh, 2009). By and large, mindfulness refers to the self-regulation of attention so that people recognize their mental events in current situations (Bishop et al., 2004). Mindfulness describes either a temporary state in which individuals can actively engage in (e.g., through meditation) or a trait that represents the overall tendency of an individual to stay attentive and aware of the present moment (Brown & Ryan, 2003). Studies demonstrate that trait mindfulness can be trained through repeated practice (e.g., Shapiro et al., 2008) and, because we were interested in rather stable individual differences as compared to temporary characteristics, in the current study we will focus on trait (vs. state) mindfulness.

A growing body of research about trait mindfulness points to its benefits. Empirically, higher levels of this disposition are associated with higher levels of psychological well-being and adaptive interpersonal qualities, such as empathy, enhanced emotion regulation, and attachment security. In contrast, trait mindfulness is inversely related to psychological distress and maladaptive interpersonal qualities, such as depression, anxiety, and anger (Harnett

et al., 2016; Himichi et al., 2021; Jin et al., 2020; Sala et al., 2020; Stevenson et al., 2017).

Narcissism, albeit being distinct in its content, shares a similar nomological network with trait mindfulness, including individual and interpersonal functioning. Trait mindfulness is positively associated with emotional intelligence (Miao et al., 2018), prosocial behavior (Donald et al., 2019), and forgiveness (Karremans et al., 2020). Overall, narcissism is correlated with similar criteria – however, depending on the narcissism facet in question, opposing associations emerge. For example, agentic narcissism is positively related to perceived socio-emotional abilities (e.g., affective and cognitive empathy), whereas antagonistic narcissism is negatively related to it (Mota et al., 2019). Finally, agentic narcissism is positively related to forgiveness and antagonistic narcissism is negatively related to it (Fatfouta et al., 2015, 2017; Fatfouta & Schröder-Abé, 2017). As such, one might expect divergent associations between narcissism and trait mindfulness (i.e., positive for agentic narcissism and negative for antagonistic narcissism).

The Present Research

Narcissism has been characterized by an excessive attentional self-focus (Tracy et al., 2011), yet facet-level peculiarities may exist with respect to trait mindfulness. Indeed, as illustrated above, both traits share similar inter- and intrapersonal aspects. While agentic narcissism shows associations in the same direction as trait mindfulness (i.e., positive), antagonistic narcissism shows opposite associations (i.e., negative). Given that individuals high in agentic narcissism focus on showcasing their grandiose self (i.e., assertive self-enhancement), they should pay particularly attention (i.e., be mindful) to their internal (e.g., their thoughts and feelings) and external environment (e.g., their social interactions; Rauthmann 2011; Rogoza et al., 2016). In contrast, because individuals high in antagonistic narcissism focus on controlling the environment and others to protect the self (i.e., antagonistic self-defense), they should react impulsively to automatically occurring thoughts and feelings associated with potential ego-threats (Back et al., 2013; Bushman & Baumeister, 1998). Moreover, because mindful individuals are able to quiet self-criticizing thoughts and negative emotions associated with low self-esteem through a decentered stance (e.g., Brown et al., 2007), our main hypothesis is that agentic narcissism should be positively related to trait mindfulness, whereas antagonistic narcissism should be negatively related to it. To test this hypothesis, we conducted two independent studies; a primary study (Study 1) and a conceptual replication study (Study 2).

Study 1

Study 1 used openly accessible data from a multisite collaborative project on emerging adulthood in a cohort of students (the EAMMi2 project; Grahe et al., 2018). Study collaborators included 32 academic institutions (mostly from the United States). Recruitment took place in 2016 and collaborators used mailing services and participant pools of their organizations to invite participants to fill in a 30-minute online survey. A detailed description of the project, codebook, and measures can be retrieved from the Open Science Framework (OSF; <https://osf.io/te54b/>). The subset of data and code used for the main analyses reported below can similarly be retrieved from the OSF (<https://osf.io/djx5s/>).

Method

Participants

The sample consisted of 3,134 participants ($M_{\text{age}} = 21.10$, $SD_{\text{age}} = 4.81$, range: 18–61 years, 24.6% men). Of the participants surveyed, the majority ($n = 2,510$, 80.1%) was currently in college, with some having completed a 2-year degree ($n = 179$, 5.7%), a 4-year degree ($n = 137$, 4.4%), or a graduate degree ($n = 59$, 1.9% and $n = 136$, 4.3% reported being currently in graduate school). The remainder had completed high school or less or at least some college ($n = 82$, 2.6%; 1.0% nonresponse). Reported racial/ethnic background included European American/ White (63.4%), African American/Black (7.6%), Hispanic (8.7%), Asian/Pacific Islander (6.5%), Native American (0.4%), “other” (3.1%), and some who indicated two or more racial/ethnic categories (9.3%; 1.0% nonresponse).

Measures

Narcissism Narcissism was measured using the Narcissistic Personality Inventory-13 (NPI-13; Gentile et al., 2013). The NPI-13 is an economical version of the widely used 40-item forced-choice NPI (Raskin & Hall, 1979). For each pair of items, participants are required to choose between a narcissistic option (e.g., “I find it easy to manipulate people”) and a non-narcissistic option (e.g., “I don’t like it when I find myself manipulating people”). Choices indicating the narcissistic option were coded with “1” (and choices indicating the non-narcissistic option were coded with a “0”) and sum scores were computed. Following Ackerman et al., (2011), three subscales were computed: Leadership/Authority (LA, 4 items), Grandiose Exhibitionism (GE, 5 items),

Table 1 Descriptive statistics, reliabilities, and zero-order correlations for all measures in Study 1

Measures	1	2	3	4	5
1. NPI (full scale)	–				
2. NPI Leadership/Authority	0.74**	–			
3. NPI Grandiose Exhibitionism	0.73**	0.24**	–		
4. NPI Entitlement/Exploitativeness	0.60**	0.27**	0.15**	–	
5. Mindfulness	0.02	0.04*	0.10**	–0.13**	–
Reliability ^a	0.73	0.76	0.78	0.67	0.91
<i>M</i>	3.81	1.43	1.54	0.84	3.71
<i>SD</i>	2.55	1.31	1.39	0.96	0.84

NPI=Narcissistic Personality Inventory. Mindfulness was measured using the Mindful Attention Awareness Scale

^a Composite reliability using a latent variable modeling approach as recommended by MacCallum et al. (1996)

* $p < .05$, ** $p < .001$ (all 2-tailed)

and Entitlement/Exploitativeness (EE, 4 items). LA and GE capture agentic narcissism, while EE captures antagonistic narcissism (Ackerman et al., 2011; Hill & Roberts, 2012). Higher scores reflect higher levels of the construct.

Mindfulness Mindfulness was measured using the dispositional Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003). The MAAS is one of the most widely used instruments measuring trait mindfulness (Park et al., 2013) and consists of 15 items that capture a core aspect of mindfulness, namely individual differences in the extent to which individuals are attentive to and aware of what is happening in the present moment (e.g., “I find myself doing things without paying attention”). Items were rated from 1 (*almost always*) to 8 (*almost never*). Higher scores reflect higher mindfulness.

Statistical Analyses

Data were analyzed using zero-order correlations and structural equation modeling (SEM) with maximum-likelihood estimation in *Ωnyx* (von Oertzen et al., 2015). Following recommendations by Kline (2015), items were parceled into three indicators using the item-to-construct balance approach (Little et al., 2002). Prior to our main analysis regarding narcissism facets as predictors of trait mindfulness, we evaluated the latent structure of the three-factor narcissism model (Ackerman et al., 2011). As such, we were able to demonstrate the utility of the multidimensional (vs. one-dimensional) approach to narcissism. Model fit was evaluated using the following three evaluation criteria: Comparative Fit Index (CFI; acceptable fit ≥ 0.95), Root Mean Square of Approximation (RMSEA; acceptable fit ≤ 0.08), and Standardized Root Mean Square Residual (SRMR; acceptable fit ≤ 0.10 ; Schermelleh-Engel et al., 2003).

Power Considerations

The sample size was determined by the available data and, hence, not by an a priori power analysis. We therefore performed a post hoc power analysis for SEM using the RMSEA (MacCallum et al., 1996), which yielded a statistical power near unity (i.e., 1.0). Hence, the study was adequately powered to detect the predicted effects.

Results and Discussion

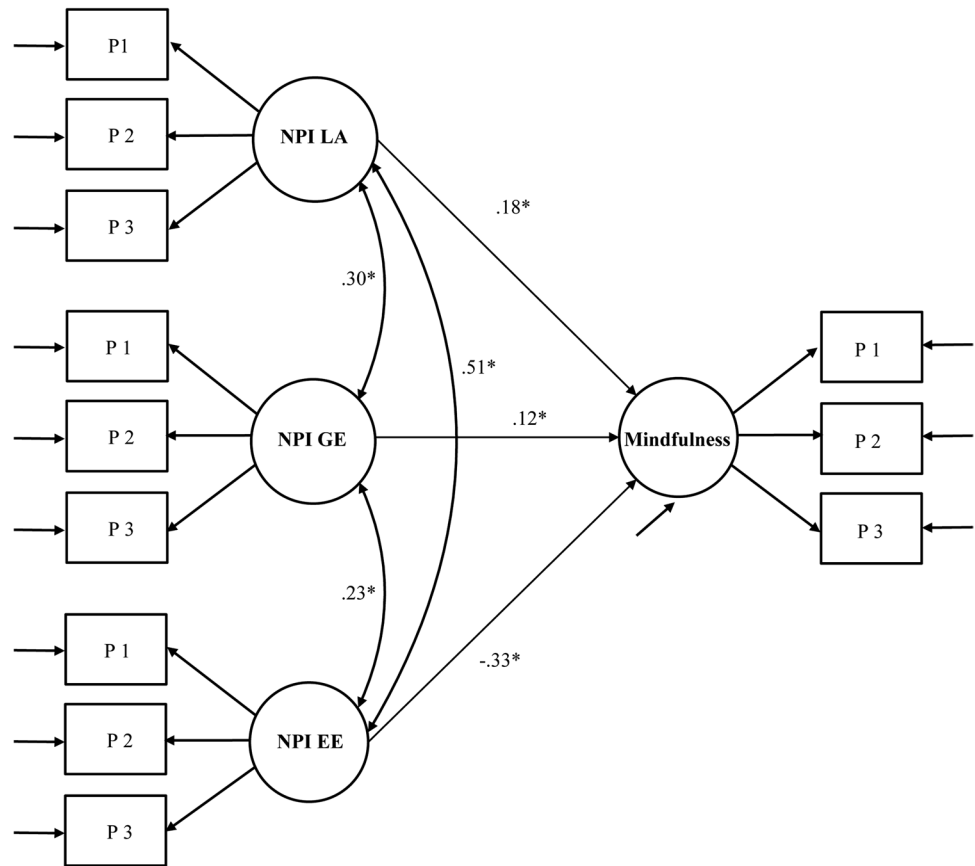
Descriptive Statistics and Zero-order Correlations

Table 1 details descriptive statistics (i.e., means and standard deviations), reliabilities, and zero-order correlations among study variables. The narcissism composite score was not significantly correlated with trait mindfulness. Yet, an examination of the distinct narcissism facets added more nuance to this picture. Specifically, agentic narcissism (i.e., LA and GE) was significantly positively related to trait mindfulness, whereas antagonistic narcissism (i.e., EE) was significantly negatively related to it. Thus, on a zero-order correlational level, we found support for our main hypothesis.

Preliminary Analysis Examining the Three-factor Narcissism Model

The latent structure of the three-factor narcissism model demonstrated a good fit, $\chi^2(24) = 149.05$, $p < .001$, CFI = 0.96, RMSEA = 0.041, SRMR = 0.029. In contrast, the unidimensional (i.e., one-factor) model demonstrated a poor fit, $\chi^2(27) = 1278.68$, $p < .001$, CFI = 0.61, RMSEA = 0.122, SRMR = 0.087. A Likelihood Ratio test was significant ($-2 \log$ likelihood ratio [3] = 1129.63, $p < .001$), indicating that the three-factor model provides a better fit to the data than the one-factor model.

Fig. 1 Structural equation model of the associations between narcissism facets and mindfulness in Study 1. Note. Standardized maximum-likelihood parameter estimates are presented. NPI = Narcissistic Personality Inventory; LA = Leadership/Authority; GE = Grandiose Exhibitionism; EE = Entitlement/Exploitativeness. P = Parcel. Mindfulness was measured using the Mindful Attention Awareness Scale. * $p < .001$ (all 2-tailed)



Structural Equation Modeling Examining Narcissism Facets and Mindfulness

To account for the moderate correlation among the narcissism facets ($r_{Mean} = 0.22$) and, hence, provide a more stringent test of our hypothesis, a SEM was fitted to the data. By controlling for shared variance, we were able to assess the relationship between each of the narcissism facets and trait mindfulness without the contamination of the other narcissism facets. As such, the results provide a more accurate estimate of the unique contribution of each narcissism facet to the narcissism-mindfulness link (for a similar procedure, see Fatfouta & Schröder-Abé, 2018; Fatfouta et al., 2017). Figure 1 shows a graphical presentation of the model, including the standardized regression coefficients.

The model demonstrated a good fit, $\chi^2(48) = 224.02$, $p < .001$, CFI = 0.98, RMSEA = 0.034, SRMR = 0.028. As predicted, agentic narcissism (i.e., LA and GE) was a significant positive predictor of trait mindfulness ($\beta_{LA} = 0.18$, $SE = 0.10$, $p < .001$; $\beta_{GE} = 0.12$, $SE = 0.06$, $p < .001$). Moreover, antagonistic narcissism (i.e., EE) was a significant negative predictor of trait mindfulness ($\beta_{EE} = -0.33$, $SE = 0.23$, $p < .001$). That is, whereas individuals high in agentic narcissism reported a greater frequency of mindful stances in

day-to-day life, individuals high in antagonistic narcissism reported a lower frequency.

Study 2

Study 1 provided the first evidence of divergent associations between narcissism and mindfulness (i.e., positive for agentic narcissism and negative for antagonistic narcissism). However, Study 1 was limited in at least two important ways. First, we used the NPI to differentiate between agentic and antagonistic narcissism. Although this practice parallels prior research (e.g., Ackerman et al., 2011; Fatfouta et al., 2017), the NPI has been criticized for a number of reasons, including the modest reliability of some of its factors (Krizan & Herlache, 2018). Second, we measured trait mindfulness using the well-established MAAS. Despite its popularity (Park et al., 2013), the MAAS is a unidimensional instrument that only allows investigation of a specific aspect of mindfulness, namely acting with awareness (Sauer et al., 2013). However, mindfulness as well has been suggested to be a multifaceted construct consisting of distinct mindfulness skills (Baer et al., 2006, 2008). Study 2 aimed to alleviate these concerns and to replicate and extend the results from Study 1 in a different geographical context,

namely German-speaking Europe (i.e., Germany, Austria, Switzerland). We decided to focus on German-speaking Europe because it represents another Western society (similar to Study 1) and because the to-be-measured mindfulness questionnaires have been successfully validated in German (see below).

Methods

The present research (i.e., design, hypothesis, power analysis, and main analysis) was fully preregistered on the OSF (<https://osf.io/hxsaz>). We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study (Simmons et al., 2012). The subset of data and code used for the main analyses reported below are also available from the OSF (<https://osf.io/djx5s>).

Participants

A total of 405 German-speaking individuals were recruited via online social networks, mailing lists, and participant pools to participate in an online survey. Recruitment took place between December 2021 and January 2022. Based on our preregistered exclusion criterion (participant age < 18 years), two participants (0.49%) were excluded. The final sample consisted of 403 participants ($M_{\text{age}} = 29.46$, $SD_{\text{age}} = 11.35$, 22.3% men). Of the participants surveyed, the slight majority ($n = 244$, 60.5%) was currently in college. Approximately half of the sample ($n = 175$, 43.4%) held a university degree. Reported country of residence included Germany (83.6%), Austria (10.7%), Switzerland (4.7%), and some who indicated “other” (1.0%).

Measures

Narcissism Narcissism was measured using the Narcissistic Admiration and Rivalry Questionnaire (NARQ; Back et al., 2013). The NARQ is a more recent, reliable, and brief (18 items) instrument that allows for the assessment of two distinct narcissism dimensions: Narcissistic admiration captures agentic narcissism (9 items; e.g., “I enjoy my successes very much”), whereas narcissistic rivalry captures antagonistic narcissism (9 items; e.g., “I want my rivals to fail”). Items were rated from 1 (*do not agree at all*) to 6 (*agree completely*). Higher scores reflect higher levels of the construct.

Mindfulness We used two different questionnaires to measure mindfulness. First and, in line with Study 1, we used the German (Michalak et al., 2008) version of the MAAS (Brown & Ryan, 2003). Second, we used the German (Tran et al., 2013) short form of the Five Factor Mindfulness Questionnaire (FFMQ; Baer et al., 2006; Baer et al., 2008).

The FFMQ is also a commonly used mindfulness questionnaire with five empirically derived facets (5 items each): Observe (e.g., “I pay attention to sensations, such as the wind in my hair or sun on my face”), describe (e.g., “I can usually describe how I feel at the moment in considerable detail”), act with awareness (e.g., “I am easily distracted” [reverse-scored item]), nonjudging of inner experience (e.g., “I tell myself that I shouldn’t be thinking the way I’m thinking” [reverse-scored item]), and nonreactivity to inner experience (e.g., “In difficult situations, I can pause without immediately reacting”). Items were rated from 1 (*never or very rarely true*) to 5 (*very often or always true*). For both the MAAS and the FFMQ, higher scores reflect higher mindfulness.

Statistical Analysis

As in Study 1, data were analyzed using zero-order correlations and SEM with maximum-likelihood estimation in Ω nyx (von Oertzen et al., 2015). Prior to our main analysis regarding narcissism facets as predictors of trait mindfulness, we evaluated the latent structure of the two-factor narcissism model (Back et al., 2013) and the five-factor mindfulness model (Baer et al., 2006, 2008). Model fit was evaluated as in Study 1.

Power Considerations

We decided that the sample size for Study 2 should be at least 300. The required minimum sample size was preregistered and was based on typical sample sizes for SEM studies (> 200; Kline 2015). Given that we conducted the study online, we were able to oversample for the sake of statistical power. We also performed a post hoc power analysis for SEM using the RMSEA (MacCallum et al., 1996), which yielded a statistical power near unity (i.e., 1.0). Hence, the study was adequately powered to detect the predicted effects.

Results and Discussion

Descriptive Statistics and Zero-order Correlations

Table 2 details descriptive statistics (i.e., means and standard deviations), reliabilities, and zero-order correlations among study variables. Agentic narcissism (i.e., narcissistic admiration) was significantly positively related to the FFMQ (total score and four out of five subscales), but not to the MAAS. Antagonistic narcissism (i.e., narcissistic rivalry) was significantly negatively related to both the FFMQ (total score and four out of five subscales) and the MAAS. Thus, on a zero-order correlational level, we found partial support for our main hypothesis.

Table 2 Descriptive statistics, reliabilities and zero-order correlations for all measures in Study 2

Measures	1	2	3	4	5	6	7	8	9
1. Narcissistic Admiration	–								
2. Narcissistic Rivalry	0.20***	–							
3. Mindfulness (MAAS)	0.03	–0.36***	–						
4. Mindfulness (FFMQ)	0.26***	–0.36***	0.62***	–					
5. Observe	0.15**	–0.07	0.23***	0.45***	–				
6. Describe	0.36***	–0.19***	0.29***	0.63***	0.24***	–			
7. Actaware	0.03	–0.27***	0.66***	0.68***	0.04	0.27***	–		
8. Nonjudging	0.11*	–0.34***	0.49***	0.75***	0.08	0.26***	0.49***	–	
9. Nonreacting	0.18***	–0.27***	0.27***	0.63***	0.16***	0.18***	0.32***	0.44***	–
Reliability ^a	0.84	0.81	0.88	0.95	0.73	0.82	0.84	0.85	0.70
<i>M</i>	2.92	2.13	3.92	3.29	3.64	3.33	3.08	3.27	3.14
<i>SD</i>	0.80	0.73	0.76	0.50	0.72	0.84	0.81	0.93	0.67

MAAS = Mindful Attention Awareness Scale. FFMQ = Five Facet Mindfulness Questionnaire

^a Composite reliability using a latent variable modeling approach as recommended by MacCallum et al. (1996)

* $p < .05$, ** $p < .01$, *** $p < .001$ (all 2-tailed)

Preliminary Analysis Examining the Two-factor Narcissism Model

The latent structure of the two-factor narcissism model demonstrated a good fit, $\chi^2(8) = 1180.41$, $p < .001$, CFI = 0.98, RMSEA = 0.089, SRMR = 0.045, which is in line with previous results for the NARQ (Back et al., 2013). In contrast, the unidimensional (i.e., one-factor) model demonstrated a poor fit, $\chi^2(9) = 500.60$, $p < .001$, CFI = 0.58, RMSEA = 0.369, SRMR = 0.227. A Likelihood Ratio test was significant ($-2 \log$ likelihood ratio [1] = 467.40, $p < .001$), indicating that the two-factor model provides a better fit to the data than the one-factor model.

Preliminary Analysis Examining the Five-factor Mindfulness Model

Similarly, the latent structure of the five-factor mindfulness model demonstrated a good fit, $\chi^2(80) = 188.60$, $p < .001$, CFI = 0.96, RMSEA = 0.058, SRMR = 0.050, which is in line with past research examining the factor structure of the FFMQ (Baer et al., 2006, 2008). In contrast, the unidimensional (i.e., one-factor) model demonstrated a poor fit, $\chi^2(89) = 1315.17$, $p < .001$, CFI = 0.49, RMSEA = 0.185, SRMR = 0.141. A Likelihood Ratio test was significant ($-2 \log$ likelihood ratio [9] = 1126.56, $p < .001$), indicating that the five-factor model provides a better fit to the data than the one-factor model.

Structural Equation Modeling Examining Narcissism Facets and Mindfulness

Figures 2 and 3 show a graphical presentation of the models. The first model examined agentic and antagonistic

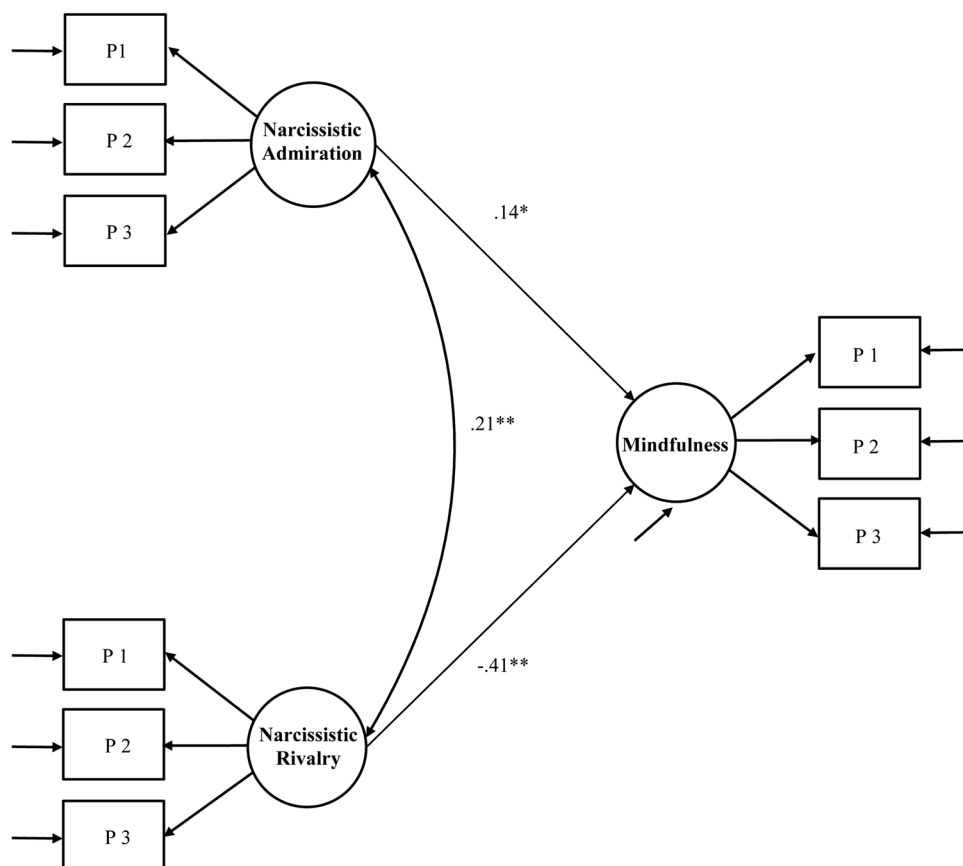
narcissism as predictors of mindfulness as measured with the MAAS. The model demonstrated a good fit, $\chi^2(24) = 80.98$, $p < .001$, CFI = 0.97, RMSEA = 0.077, SRMR = 0.054. As predicted, agentic narcissism was a significant positive predictor of trait mindfulness ($\beta = 0.14$, $SE = 0.06$, $p = .016$). Moreover, antagonistic narcissism was a significant negative predictor of trait mindfulness ($\beta = -0.41$, $SE = 0.06$, $p < .001$). Fully replicating the results from Study 1, individuals high in agentic narcissism reported a greater frequency of mindful stances in day-to-day life, whereas individuals high in antagonistic narcissism reported a lower frequency.

The second model examined agentic and antagonistic narcissism as predictors of the different FFMQ facets. The model demonstrated a good fit, $\chi^2(168) = 346.37$, $p < .001$, CFI = 0.95, RMSEA = 0.051, SRMR = 0.050. Due to the large number of coefficients, we report the detailed results in Table 3 for ease of exposition. Moreover, because the results were highly consistent across all five mindfulness facets, we summarize them briefly here. As hypothesized, agentic narcissism was a significant positive predictor of each mindfulness facet (β s = 0.12 to 0.50, p s $\leq .039$), whereas antagonistic narcissism was a significant negative predictor of each mindfulness facet (β s = -0.14 to -0.41, p s $\leq .027$). Thus, our SEM results fully replicate the findings from Study 1 in a new sample using a different measure of grandiose narcissism and mindfulness.

General Discussion

To our knowledge, there are no studies investigating the relationship between facets of narcissism and trait mindfulness. We aimed to close this gap using a multidimensional view of

Fig. 2 Structural equation model of the associations between narcissism facets and mindfulness in Study 2. Note. Standardized maximum-likelihood parameter estimates are presented. P = Parcel. Mindfulness was measured using the Mindful Attention Awareness Scale. * $p < .05$, ** $p < .001$ (all 2-tailed)



narcissism. Using SEM, our results from two large samples show how important such a multidimensional view is: In line with our main hypothesis, agentic narcissism was positively associated with trait mindfulness, whereas antagonistic narcissism was negatively associated with trait mindfulness. These results suggest that while some facets of narcissism are associated with nonjudgmental and aware stances, others are less so.

Our results add to the differentiation of agentic and antagonistic narcissism. Even though both narcissism facets are positively associated, their opposing interrelations with trait mindfulness replicate similar patterns with individual and interpersonal aspects. For example, agentic narcissism is positively correlated with socioemotional facets, such as empathy or emotional intelligence, whereas antagonistic narcissism is negatively correlated with these constructs (Burgmer et al., 2021; Fatfouta et al., 2015; Mota et al., 2019). Moreover, there are differences between narcissism facets in other interpersonal settings (Back et al., 2013): Especially in the short term, agentic narcissism leads to positive peer perceptions. However, in the long term, negative effects of antagonistic narcissism are more relevant as perceptions become increasingly negative (Leckelt et al., 2015).

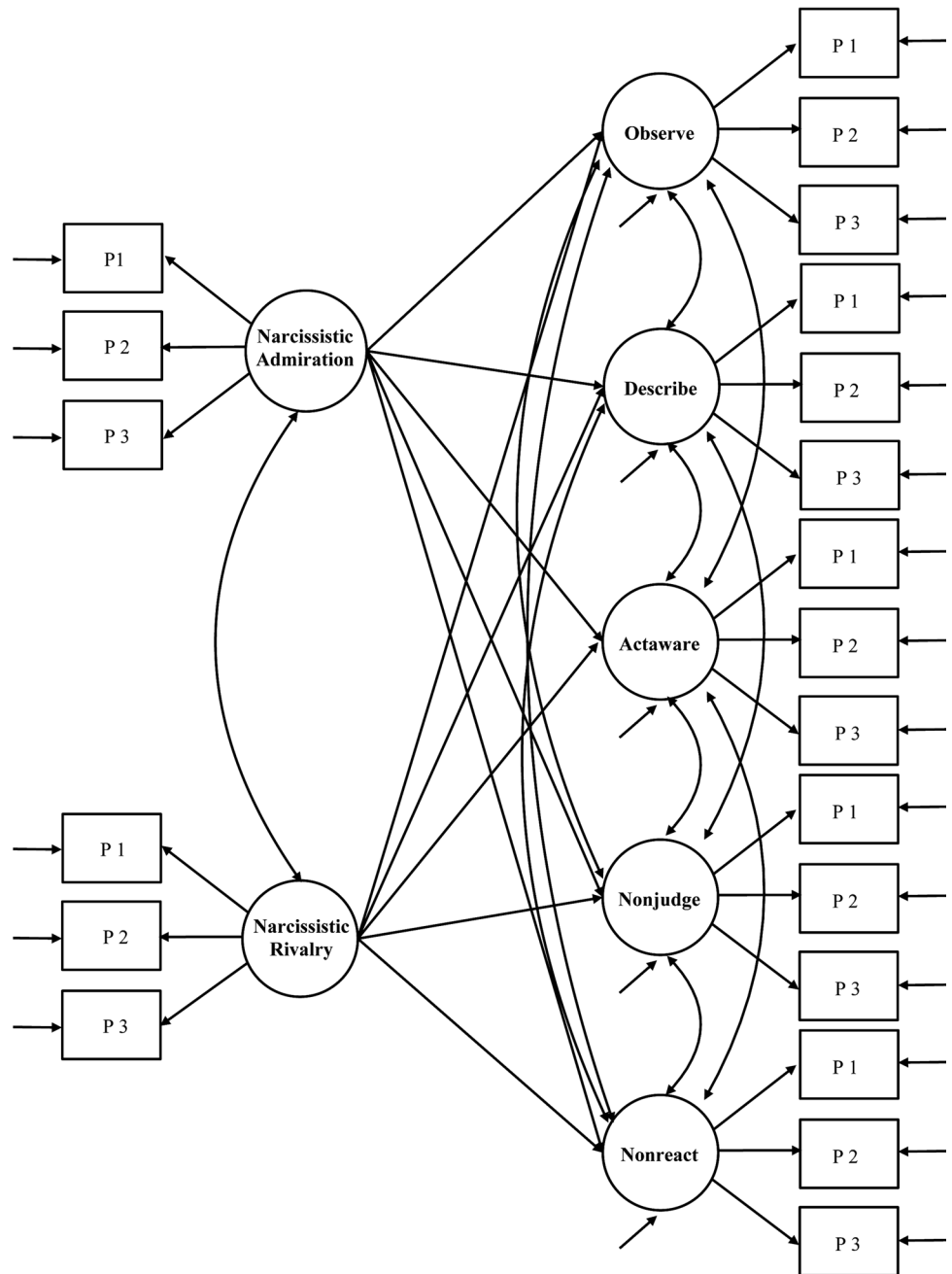
This study introduces narcissism as another construct to the complex nomological network of trait mindfulness. Our

results closely resemble associations that are shared between narcissism facets and trait mindfulness. Agentic narcissism and trait mindfulness are both generally related to adaptive interpersonal aspects, that is, both constructs are associated with high, stable self-esteem, and empathic skills (Geukes et al., 2017; Randal et al., 2015). However, antagonistic narcissism and lack of trait mindfulness (or, mindlessness) are both characterized by maladaptive intra- and interpersonal aspects, such as aggressiveness, low, instable self-esteem, and lack of self-control (Bushman & Baumeister, 1998; Heinze et al., 2020). These aspects could hinder a mindful stance and may make it difficult to be present in the moment.

Theoretical and Practical Implications

Despite the fact that our studies took a trait perspective on narcissism and mindfulness, our results concerning agentic narcissism cohere with recent experimental studies that mindful and spiritual trainings might not thwart, but rather boost self-enhancement (Gebauer et al., 2018; Vonk & Visser, 2021). Although the cross-sectional design precludes the possibility of causal interpretations, it seems reasonable to assume that mindfulness promotes higher levels of agentic narcissism. An equally plausible possibility, however, is that agentic narcissists may be able to shift their

Fig. 3 Structural equation model of the associations between narcissism facets and mindfulness facets in Study 2. Note. P=Parcel. Mindfulness facets were measured using the Five Factor Mindfulness Questionnaire. For ease of exposition, estimation results of the SEM are presented in Table 3



awareness to internal or external stimuli to maximize their self-promotional efforts. In this light, agentic narcissists may use mindfulness as a strategy to foster acceptance of their grandiose self (and feel superior to others; also see Vonk & Visser, 2021).

Our results concerning antagonistic narcissism suggest that antagonistic narcissism may hinder awareness and a nonjudgmental stance. Antagonistic narcissists perceive their environment as a potential threat to their grandiose self that triggers active and passive offensive reactions and operate automatically and independently from deliberate reasoning (Back et al., 2013; Heinze et al., 2020). Thus,

mindfulness as the capacity to self-regulate one’s attention may mitigate automatic aggressive reactions in ego-threatening situations for antagonistic narcissists. Since trait mindfulness can be improved by repeated mindfulness training (Lisá & Valachová, 2021; Shapiro et al., 2008), such interventions might be especially beneficial for individuals high in antagonistic narcissism, possibly by teaching them how to perceive surrounding events as harmless (through a nonjudgmental stance) or irrelevant (through awareness) to their grandiosity. Consistently, in a meta-analysis, mindfulness trainings have been shown to be most effective for decreasing negative personality

Table 3 Estimation results of the SEM involving narcissism facets and mindfulness facets in Study 2

Coefficients	Std. Estimate	Std. error	<i>p</i> (2-tailed)
Covariance Narcissistic Admiration & Narcissistic Rivalry	0.21	0.03	<0.001
Narcissistic Admiration → Observe	0.25	0.07	<0.001
Narcissistic Admiration → Describe	0.50	0.08	<0.001
Narcissistic Admiration → Actaware	0.24	0.08	<0.001
Narcissistic Admiration → Nonjudge	0.12	0.06	0.039
Narcissistic Admiration → Nonreact	0.31	0.07	<0.001
Narcissistic Rivalry → Observe	−0.14	0.06	0.027
Narcissistic Rivalry → Describe	−0.31	0.07	<0.001
Narcissistic Rivalry → Actaware	−0.41	0.08	<0.001
Narcissistic Rivalry → Nonjudge	−0.32	0.06	<0.001
Narcissistic Rivalry → Nonreact	−0.34	0.06	<0.001
Covariance Observe & Describe	0.16	0.04	0.006
Covariance Observe & Actaware	0.02	0.04	0.688
Covariance Observe & Nonjudge	−0.02	0.03	0.769
Covariance Observe & Nonreact	0.07	0.03	0.294
Covariance Describe & Actaware	0.15	0.05	0.004
Covariance Describe & Nonjudge	0.18	0.04	<0.001
Covariance Describe & Nonreact	0.00	0.04	0.961
Covariance Actaware & Nonjudge	0.39	0.04	<0.001
Covariance Actaware & Nonreact	0.39	0.04	<0.001
Covariance Nonjudge & Nonreact	0.25	0.03	<0.001

traits, like psychoticism ($r = .40$; Eberth & Sedlmeier 2012), underlining the beneficial effects of mindfulness on dysfunctional traits. As such, mindfulness practice could help antagonistic narcissists to be more aware of intense feelings in reaction of ego-threatening events to react in a restrained rather than impulsive or aggressive manner (Thomaes et al., 2009).

Mindfulness apps and interventions are often advertised to offer an escape from the self-enhancing mechanisms and egocentric appeals of social media, influencers, and other forms of public self-representation. Moreover, many companies worldwide adopt mindfulness programs at work in an effort to enhance employee productivity (Dane & Brummel, 2014; Jamieson & Tuckey, 2017). In line with similar studies on self-enhancement (Gebauer et al., 2018; Vaughan-Johnston et al., 2021), our study hints that such interventions might be a means rather than a countermeasure to narcissistic self-enhancement in a socially acceptable domain.

Moreover, positive outcomes of trait mindfulness both on a personal and professional level, such as more confidence, better interpersonal relations, or positive emotional regulation could be mediated by higher levels of agentic narcissism or lower levels of antagonistic narcissism (Mesmer-Magnus et al., 2017). On a clinical basis, narcissism could also play an important role in the negative association between

mindfulness and symptoms of depression, anxiety or trauma (Carpenter et al., 2019).

Strengths, Limitations, and Future Directions

The present studies have three notable strengths, including a large, diverse, and highly powered sample, a multidimensional view of narcissism as well as the use of SEM. Moreover, Study 2 replicates the findings of Study 1 in a different Western sample and shows that the results generalize across distinct mindfulness skills. Yet, our research is not without limitations. First, even though participants might respond spontaneously and intuitively to the questions, response biases cannot be ruled out. For example, agentic narcissists might deny a lack of mindfulness as part of projecting their desired identity to self and others, whereas antagonistic narcissists might not. To address this issue, we suggest including a behavioral measure of mindfulness in future studies. Such studies should also explore the question of causality. Specifically, it remains to be further investigated whether mindfulness inflates people's self-image or, instead, whether people who want to enhance their selves feel attracted to mindfulness programs.

Second, apart from agentic and antagonistic narcissism, other conceptualizations of narcissism exist that could be relevant for trait mindfulness (e.g., communal narcissism; Gebauer & Sedikides 2018). For instance, communal

narcissists who self-enhance in communal (vs. agentic) domains could view mindfulness as a potential means to display grandiosity and superiority (for a similar argument, see Vonk & Visser, 2021). In fact, communal narcissism has been shown to be higher in an intervention group practicing yoga and meditation than in a control group (Gebauer et al., 2018). Another valuable research endeavor is the association of vulnerable narcissism and mindfulness. Hypothetically, vulnerable characteristics, such as volatile social behavior, reactive and avoidant tendencies, and emotional dysregulation could be associated with a lack of mindfulness (Krizan & Herlache, 2018). Therefore, our suggestion for future research is to expand on the findings of these studies and additionally explore the roles of communal and vulnerable narcissism in relation to mindfulness.

Third, our samples consisted mostly of highly educated participants from two modern Western societies. Although the respective cultural backgrounds may be somewhat diverse, our samples still originate from individualistic regions (i.e., United States and German-speaking Europe). However, historically, mindfulness originated from ancient Eastern Buddhist philosophy (Kabat-Zinn & Hanh, 2009). Given that conceptualizations and understandings of mindfulness might be different in culturally diverse and non-Western societies, further replication of the present findings is warranted.

Conclusions

Taken together, our research shows divergent associations between narcissism and trait mindfulness: Agentic narcissism was positively associated with mindfulness, whereas antagonistic narcissism was negatively associated with it. Our results imply a potential downside of mindfulness as a correlate of self-enhancement. Moreover, our results are relevant for further investigations and applications of mindfulness trainings as a measure to counteract narcissistic functioning: Whereas antagonistic narcissists could potentially benefit from mindfulness practice, agentic narcissists might not.

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Data Availability The datasets generated during and/or analyzed during the current study can be retrieved from the Open Science Framework (<https://osf.io/djx5s>).

Declarations

Conflict of Interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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