

Psychological Assessment

Introducing the Narcissistic Antagonism Scale: A Missing Puzzle Piece in the Assessment of Momentary Narcissism

Radosław Rogoza, Lidia Baran, Maria Flakus, Georg Krammer, and Ramzi Fatfouta

Online First Publication, October 3, 2024. <https://dx.doi.org/10.1037/pas0001344>

CITATION

Rogoza, R., Baran, L., Flakus, M., Krammer, G., & Fatfouta, R. (2024). Introducing the Narcissistic Antagonism Scale: A missing puzzle piece in the assessment of momentary narcissism.. *Psychological Assessment*. Advance online publication. <https://dx.doi.org/10.1037/pas0001344>

Introducing the Narcissistic Antagonism Scale: A Missing Puzzle Piece in the Assessment of Momentary Narcissism

Radosław Rogoza¹, Lidia Baran^{2, 3}, Maria Flakus⁴, Georg Kramer⁵, and Ramzi Fatfouta⁶

¹ Department of Human Sciences, University of Economics and Human Science in Warsaw

² Institute of Psychology, University of Wrocław

³ Meta-Research Centre, University of Wrocław

⁴ Institute of Philosophy and Sociology, Polish Academy of Sciences

⁵ Institute of Business and Vocational Education, Johannes Kepler University Linz

⁶ Berlin, Germany

Narcissism is a relatively stable personality trait, which is most accurately described by three facets: agentic, antagonistic, and neurotic. Existing studies support the central role of antagonistic narcissism and its role in explaining the process of fluctuation in narcissism. However, there is a lack of a suitable adjective-based measure of antagonistic narcissism, resulting in intensive longitudinal studies assessing only agentic and neurotic narcissism. To address this gap and to advance research on fluctuations in narcissism, this article introduces the Narcissistic Antagonism Scale (NAS). Across six studies (total $N = 1,862$; $k = 14,927$ observations), we establish the NAS's factorial, convergent, and divergent validity; reliability; and temporal stability. The three-factor model of narcissism, including antagonistic aspects, reproduces and proves to be invariant across daily and momentary perspectives. The NAS exhibits good psychometric properties at both between- and within-person levels. It is a valuable addition for intensive longitudinal studies and facilitates a nuanced examination of narcissistic states across diverse contexts.

Public Significance Statement


This article introduces a new adjective-based measure of trait and state antagonistic narcissism: the Narcissistic Antagonism Scale. We report the psychometric properties of this novel scale.


Keywords: narcissism, fluctuations, antagonism

In its broadest sense, narcissism can be defined as entitled self-importance (Krizan & Herlache, 2018). This narcissistic self-view manifests diversely, ranging from hypersensitivity, negative affectivity, and social isolation to boastful and self-enhancing behavior (Miller et al., 2021). Within the literature, these manifestations of narcissism are commonly referred to as vulnerable, that is, excessive preoccupation about being hurt by others, associated with unrealistic

expectations toward others and hostile attitudes and grandiose narcissism (i.e., inflated self-image associated with beliefs of superiority), respectively (Jauk et al., 2022; Rogoza, Kramer, et al., 2024). Recent advancements have refined this two-dimensional understanding into three specific facets: agentic (i.e., self-promoting self-enhancement; specific to grandiose narcissism), neurotic (i.e., hypersensitivity and social withdrawal;

Jaime L. Anderson served as action editor.

Radosław Rogoza  <https://orcid.org/0000-0002-4983-9320>

Lidia Baran  <https://orcid.org/0000-0002-3118-1997>

Maria Flakus  <https://orcid.org/0000-0002-6667-8020>

Georg Kramer  <https://orcid.org/0000-0002-1259-0349>

Ramzi Fatfouta  <https://orcid.org/0000-0001-6633-356X>

We adhere to the open science practices, and all of the used code books, data, syntaxes, and additional online materials are available at the Open Science Framework and can be accessed at <https://osf.io/u93eq> (Rogoza, Baran, et al., 2024), while the registrations are available at <https://osf.io/eduwr> and at <https://osf.io/24bpr>. The authors report no conflicts of interest.

This research was funded in whole, or in part, by the National Science Centre, Poland (Grant 2020/39/B/HS6/00052). For the purpose of open

access, the author has applied a CC BY public copyright license to any Author Accepted Manuscript version arising from this submission.

Radosław Rogoza played a lead role in conceptualization, formal analysis, methodology, writing—original draft, and writing—review and editing. Lidia Baran played a lead role in project administration and an equal role in methodology and writing—review and editing. Maria Flakus played an equal role in methodology and writing—review and editing. Georg Kramer played an equal role in formal analysis, validation, and writing—review and editing. Ramzi Fatfouta played a lead role in supervision and an equal role in conceptualization, methodology, and writing—review and editing.

Correspondence concerning this article should be addressed to Radosław Rogoza, Department of Human Sciences, University of Economics and Human Sciences in Warsaw, Okopowa 59, 01-043 Warsaw, Poland. Email: r.rogoza@vizja.pl

specific to vulnerable narcissism), and antagonistic narcissism (i.e., reactive and hostile self-defense; common to both; Back, 2018; Rogoza et al., 2019; Wright & Edershile, 2018).

This three-factor structure of narcissism has been supported empirically, revealing distinct nomological networks for each factor and situating it within broader models of personality (Crowe et al., 2019). Moreover, antagonistic narcissism emerges as a central element of narcissistic personality, bridging agentic and neurotic narcissism (Rogoza, Crowe, et al., 2022). While narcissism (and its facets) is traditionally viewed as stable trait construct, it is also recognized as a dynamic process at the state level (Back, 2018). While research on the measurement of trait narcissism is well-established (e.g., Wetzell et al., 2021), studies on within-person narcissism measurement remain scarce (cf. Rogoza, Kramer, et al., 2024).

This paucity of research on within-person narcissism is unfortunate, considering ample evidence suggesting that narcissism is characterized by large within-person variability (cf. Edershile & Wright, 2021; Geukes et al., 2017; Mota et al., 2023; Rogoza, Kramer, et al., 2024). Evidence from clinical psychology, for example, suggests that people with elevated (especially grandiose) narcissistic traits experience fluctuations in narcissistic states from feelings of superiority to helplessness (Edershile & Wright, 2021; Gore & Widiger, 2016; Oltmanns & Widiger, 2018; Pincus & Lukowitsky, 2010; Pincus et al., 2014; Ronningstam, 2005). Similarly, in personality psychology, narcissism is conceptualized as an *if-then* construct (Back et al., 2013; Morf & Rhodewalt, 2001), governed by two “laws” dictating behavioral deployment: (a) if there is no threat to the grandiose self-image, then the default strategy is self-promotion; (b) if a threat (e.g., to status) emerges, then the strategy shifts to self-protection by any means (Back, 2018; Grapsas et al., 2020). Thus, integrating theoretical models (Back, 2018; Fatfouta & Rogoza, 2024; Grapsas et al., 2020; Morf & Rhodewalt, 2001; Ronningstam, 2005) with empirical assessments, narcissistic dynamics emerges as a crucial research endeavor. However, this necessitates adequate tools for assessing state antagonistic narcissism, as the field lacks state antagonism measures (Vize et al., 2022). The current article aimed to fill this gap by developing the Narcissistic Antagonism Scale (NAS).

An in-depth understanding of dynamic aspects of personality often demands intensive longitudinal assessment (Kandler & Rauthmann, 2022). The research paradigm tailored for such designs is known as the experience-sampling method, and it is increasingly employed in studying narcissistic personality (e.g., Di Sarno et al., 2020; Kroencke et al., 2023; Scharbert et al., 2024). Experience-sampling method studies differ in prompt frequency, from daily diary studies with one prompt per day to ecological momentary assessment (EMA) studies with multiple prompts throughout the day. In daily diary studies, researchers typically use statement-based measures of narcissistic personality, often favoring abbreviated versions (Giacomin & Jordan, 2016). Notably, existing research strongly supports the psychometric properties of daily narcissism measures (Rogoza, Kramer, et al., 2024). However, using statement-based measures in momentary designs poses challenges, including feasibility issues such as item length constraints due to repeated measurement.

To address this limitation, researchers in EMA studies commonly adopt adjective-based measures. Currently, there are two adjective-based measures of narcissism: the Narcissistic Grandiosity Scale

(NGS; Crowe et al., 2016; Rosenthal et al., 2020) and the Narcissistic Vulnerability Scale (NVS; Crowe et al., 2018). These measures not only prove to be more efficient in EMA studies but, more importantly, they are also psychometrically validated for capturing narcissistic states in daily life (Edershile et al., 2019; Rogoza, Kramer, et al., 2024). However, they share a critical limitation that hinders a comprehensive understanding of narcissism dynamics: that is, the NGS and the NVS fall short in adequately covering the antagonistic facet of narcissism, focusing exclusively on agentic and neurotic narcissism, respectively (Miller et al., 2021; Rogoza, Crowe, et al., 2022; Wright & Edershile, 2018; for meta-analytic evidence, see Welsh et al., 2024). Given that daily state narcissism studies emphasize the significance of the antagonistic facet in understanding narcissistic variability and, consequently, the fluctuation process itself (Rogoza, Kramer, et al., 2024), assessing antagonistic narcissism becomes a crucial step toward comprehending this process.

In light of this evidence, existing studies investigating momentary state narcissism changes predominantly capture fluctuations between agentic and neurotic narcissism (Edershile & Wright, 2021). As fluctuations tend to manifest gradually (i.e., occurring through antagonistic narcissism) rather than abruptly (i.e., occurring directly from agentic to neurotic narcissism; Back, 2018; Morf & Rhodewalt, 2001; Ronningstam, 2005), the omission of this most central piece of the puzzle could lead to overinterpretations. Consequently, the overarching goal of the current research was to develop and validate the NAS, an adjective-based measure of trait as well as daily and momentary state antagonistic narcissism, thereby enhancing the capacity to accurately assess state antagonistic narcissism.

Overview of Studies

To achieve this goal, we conducted six studies. The first study focused on refining the internal structure and reducing the item pool of the proposed measure. The second study aimed to preliminarily evaluate whether the newly developed scale, along with two existing adjective measures, effectively captures the three-factorial model of narcissism. The third study assessed the convergent validity with established measures of narcissistic personality. The fourth study assessed temporal stability over an 8-week period. The fifth and sixth studies aimed to support the hypothesized three-factor model for daily/momentary state narcissism and to determine its compatibility within the broader model of personality. Furthermore, the sixth study analyzed the convergent and divergent validity of the NAS, considering a comprehensive set of trait and state measures.

Transparency and Openness

The hypotheses presented in Studies 1, 2, and 5 were not preregistered. The complete registered expectations of Studies 3, 4, and 6 are available at the Open Science Framework at <https://osf.io/eduwr> (for Studies 3 and 4) and at <https://osf.io/24bpr> (for Study 6). The English, German, and Polish translations of the NAS, additional materials, raw data, statistical scripts, and methodological codebooks are all available at the Open Science Framework project site at <https://osf.io/u93eq> (Rogoza, Baran, et al., 2024). The presented studies were approved by the local institutional review board.

Study 1: Initial Development of the Narcissistic Antagonism Scale

Method

Participants and Procedure

The first study was conducted on Prolific Academic with a sample representative of the British population in terms of age, gender, and ethnicity. We administered a 30-item survey to 369 adults aged between 18 and 78 ($M = 44.33$; $SD = 15.36$; 51.5% females, 78.9% White, 7.3% Asian, 4.4% Black, 3.6% mixed, and 2.3% other). Participants received compensation of approximately €0.23.

Measures

Narcissistic Antagonism Scale. Heinze et al. (2020) intended to develop an implicit measure of antagonistic narcissism on the basis of established measures of narcissism (Back et al., 2013; Pincus et al., 2009; Raskin & Hall, 1979). For this purpose, they developed a large pool of 60 adjectives to measure the antagonistic facet of narcissism. Of note, each item was rated in terms of presence of narcissism, and only best working items were kept after evaluating the items' comprehensibility and unambiguousness in comparison to other narcissism facets. Half of these adjectives were nonnarcissistic, and the other half comprised narcissistic items. In the current research, we exclusively selected the narcissistic adjectives, which served as direct indicators of antagonistic narcissism. We used these 30 adjectives (rated on a 7-point scale; 1 = *not at all* to 7 = *extremely*) as the first basis for the NAS.

Hypothesis

The goal of the first study was to assess whether the structure of the NAS, similar to the NGS and the NVS, is unidimensional (Hypothesis 1; Crowe et al., 2016, 2019; Rosenthal et al., 2020). Moreover, this study sought to refine the initial item pool by identifying and removing the weakest indicators of antagonistic narcissism.

Statistical Analyses

We conducted principal axis exploratory factor analysis (EFA), using a scree plot to evaluate the unidimensionality of the structure, testing Hypothesis 1. We then screened for items with the weakest factor loadings, iteratively eliminating them.

Results

All 30 adjectives were entered into a principal factoring EFA to determine their dimensionality. The first factor exhibited a substantial eigenvalue of 14.06, explaining 46.87% of the variance, while the second factor had an eigenvalue of 1.92, explaining 6.39% of the variance. This analysis, as illustrated in additional online Figure 1 (see scree plot), provided promising support for the unidimensionality of the NAS. Factor loadings, detailed in additional online Table 1, were generally favorable (i.e., $>.40$). Consequently, we decided to retain only those items with loadings equal to or greater than .60. This resulted in the exclusion of six items out of the initial 30.

Furthermore, each adjective was scrutinized for excessive agentic/neurotic content, leading to the removal of three additional items (i.e., megalomaniac, egoistic, and egocentric). Subsequently, we repeated the factor analysis (cf. additional online Table 1 for factor loadings) and removed two more items (i.e., aggressive and boastful), which failed to meet the $\lambda \geq .60$ threshold. Another follow-up factor analysis revealed that the factor loading of an additional adjective (i.e., domineering) also did not meet the requirement. In the final iteration, all remaining items demonstrated loadings $\geq .60$. The remaining 18 items were internally consistent ($\alpha = .95$), with item-total correlations $>.60$ for all. Thus, the first hypothesis (Hypothesis 1), regarding the one-dimensional structure of the NAS, was supported.

Study 2: Structure of Narcissistic Personality as Assessed by the Adjective Measures

Method

Participants and Procedure

The second study was conducted on Prolific Academic with a sample representative of the American population in terms of age, gender, and ethnicity. The survey was administered to 353 adults aged between 18 and 85 ($M = 44.78$; $SD = 16.67$; 49.9% females; 66.3% White, 13.3% Black, 7.9% Asian, 4.3% mixed, and 3.3% other). Participants received compensation of approximately €0.35.

Measures

In addition to a reduced 18-item version of the NAS based on the results from Study 1, we administered the 11-item NVS (Crowe et al., 2018) and the 13-item NGS (Crowe et al., 2016; Rosenthal et al., 2020). All adjectives were consolidated into a unified item pool with the same response format as in Study 1.

Hypothesis

The second study aimed to examine the potential three-factor structure involving the NAS, NVS, and NGS (Hypothesis 2; Miller et al., 2021). This stage also explored the possibility of removing NAS items that would cross-load onto other factors.

Statistical Analyses

To test Hypothesis 2, we again conducted a principal axis EFA and examined the scree plot to determine dimensionality. As we expected a multifactorial correlated solution, we used the oblimin rotation. After establishing the underlying number of factors, we systematically eliminated items with weak loadings or considerable cross-loadings on either the NVS or the NGS. The analysis was iteratively repeated after each item exclusion.

Results

The initial EFA conducted on the 42 adjectives from the three adjective scales yielded a scree plot indicating the retention of three to four factors (cf. additional online Figure 2). Given the theoretical rationale, we further examined a three-factor model (cf. additional online Table 2). Two NVS items (self-absorbed and vengeful) and one NGS item (omnipotent) cross-loaded on the antagonistic factor, while two NAS items (condescending and selfish) cross-loaded onto

the neurotic factor. In a follow-up round, we removed cross-loaded items from the NVS and the NAS (retaining the NGS item due to its higher loading on the agentic than the antagonistic factor). The resulting scree plot (additional online Figure 3) suggested retaining three factors, with rotated factor loadings presented in additional online Table 3.¹

All NAS items loaded on the hypothesized factor, supporting the second hypothesis (Hypothesis 2) that each scale measured a distinct facet of narcissism. The final version of the NAS comprised 16 internally consistent items ($\alpha = .95$; item-total correlations $>.60$). Zero-order correlations between narcissism facets also aligned with theoretical expectations, that is, the antagonistic facet was moderately and positively related to both neurotic ($r = .47$; $p < .001$) and agentic facets ($r = .33$; $p < .001$), which in turn exhibited weak negative associations with each other ($r = -.14$; $p = .009$).

Study 3: Convergent Validity With Different Measures of Narcissism

Method

Participants and Procedure

As outlined in the preregistration, the minimal sample size to detect a medium effect ($r = .30$) with $\alpha = .01$ and power of .95 was 184. However, as correlations stabilize when the sample size approaches 250 (Schönbrodt & Perugini, 2013), we aimed to collect responses from at least 300 participants, anticipating potential data exclusions because participants were also invited 8 weeks later for testing temporal stability. Questionnaires were completed online, and the participants were invited through a link posted on the project website. Participants were entered into a raffle, with 40 vouchers of approximately €6.5 each as incentives. The final sample size included 456 participants recruited among university students (27.9%) and the general population (72.1%), aged between 18 and 65 years ($M = 27.99$; $SD = 9.22$; 70.8% females), and being well-powered to detect even small effect sizes (i.e., $r = .19$, with $\alpha = .01$ and power of .96).

Measures

Adjective Measures of Narcissism. We used a 16-item NAS as refined in Study 2 and, as previously, the NVS and the NGS.

Five-Factor Narcissism Inventory–Short Form (Sherman et al., 2015). We used the 60-item version of the Five-Factor Narcissism Inventory (FFNI), which captures narcissistic neuroticism; tapping neurotic narcissism; self-centered antagonism; tapping antagonistic narcissism; and agentic extraversion, tapping agentic narcissism. We used the revised scoring (using a 5-point scale, 1 = *definitely disagree* to 5 = *definitely agree*; see Rogoza et al., 2021).

Vulnerable Isolation and Enmity Questionnaire (Rogoza, Ciecuch, et al., 2022). The Vulnerable Isolation and Enmity Questionnaire (VIEQ) is a 24-item measure assessing different expressions of vulnerable narcissism: inhibited isolation, tapping neurotic narcissism and hostile enmity, and tapping antagonistic narcissism. Participants rated their agreement on a 6-point scale (1 = *definitely disagree* to 6 = *definitely agree*).

Narcissistic Admiration and Rivalry Questionnaire (Back et al., 2013). We used the 18-item version of the Narcissistic Admiration

and Rivalry Questionnaire, evaluating two distinct expressions of grandiose narcissism: self-enhancing admiration, tapping agentic narcissism and self-defensive rivalry, tapping antagonistic narcissism. The same response scale was used as described above.

Hypersensitive Narcism [Sic] Scale (Hendin & Cheek, 1997). The Hypersensitive Narcism [Sic] Scale is a 10-item measure (rated on a 5-point scale; 1 = *definitely disagree* to 5 = *definitely agree*) capturing general vulnerable narcissism, reflecting both neurotic and, to some extent, antagonistic narcissism.

Narcissistic Personality Inventory (Raskin & Hall, 1979). We used the 13-item version of the Narcissistic Personality Inventory (Gentile et al., 2013) with a forced-choice format. Participants selected between narcissistic and nonnarcissistic statements, selecting the one better representing their personality. The Narcissistic Personality Inventory primarily taps agentic narcissism (with some elements of antagonistic narcissism).

Pathological Narcissism Inventory (Pincus et al., 2009). We used the 28-item version of the Pathological Narcissism Inventory (Schoenleber et al., 2015) capturing pathological grandiosity and vulnerability. Whereas there is agreement that pathological vulnerability taps neurotic narcissism, pathological grandiosity encompasses different aspects of all facets (Crowe et al., 2019; Rogoza, Crowe, et al., 2022). Participants rated their agreement on a 6-point scale (0 = *not at all like me* to 5 = *very much like me*).

Hypotheses

The goal of the third study was to test the associations between the NAS and other measures of narcissistic personality. Given the centrality of antagonistic narcissism within the organization of narcissistic personality, this study aimed to establish positive correlations with scales assessing antagonistic narcissism (Hypothesis 3.1; Rogoza, Kowalski, et al., 2022). Moreover, it was hypothesized that the NAS would exhibit positive correlations with all other scales assessing narcissism (Hypothesis 3.2; Krizan & Herlache, 2018; Miller et al., 2021). Furthermore, stronger correlations between the NAS and other indicators of antagonistic narcissism were anticipated (i.e., FFNI Self-Centered Antagonism; Narcissistic Admiration and Rivalry Questionnaire Rivalry, and VIEQ Enmity) compared to indicators of agentic and neurotic narcissism (Hypothesis 3.3; Rogoza, Crowe, et al., 2022). Last, within a joint-factor analysis encompassing diverse narcissism measures, we hypothesized that the NAS would align with the factor representing narcissistic antagonism (Hypothesis 3.4; M. L. Crowe et al., 2019).

Statistical Analyses

We used Pearson's correlation coefficient to analyze the associations between the different Narcissism scales (Hypothesis 3.1 and Hypothesis 3.2). Furthermore, we assessed the variations in correlation strength using Fisher's Z test (Hypothesis 3.3). Finally, to ascertain whether the NAS aligns with a factor representing antagonistic narcissism, we conducted EFA with principal axis factoring and oblimin rotation (Hypothesis 3.4).

¹ We also used an orthogonal (i.e., varimax) rotation, which yielded virtually identical results.

Results

Table 1 presents correlations between the adjective measures of narcissism and the various narcissism measures, along with the differences in correlation strength among the NAS, NGS, and NVS. As expected, the NAS was positively related to all narcissism measures, tapping antagonistic (Hypothesis 3.1), agentic, and neurotic narcissism (Hypothesis 3.2), except for the FFNI neurotic narcissism. Notably, the NAS exhibited the strongest correlation with indicators of antagonistic narcissism, substantiating its convergent validity as a newly developed measure of antagonistic narcissism. Moreover, the NAS demonstrated weaker associations with both Agentic Narcissism scales compared to the NGS, as well as with Neurotic Narcissism scales compared to the NVS. Concurrently, the NAS exhibited stronger relationships with indicators of antagonistic narcissism compared to the NGS and the NVS (except for the NVS's slightly higher correlation with VIEQ Enmity), thus supporting Hypothesis 3.3.

Next, we conducted a joint-factor analysis encompassing all analyzed narcissism measures. The resulting factor loadings are detailed in Table 2. As expected, a three-factor structure emerged, demonstrating distinct groupings of agentic, antagonistic, and neurotic narcissism. Importantly, the NAS exhibited comparable loadings on the antagonistic factor relative to other measures of antagonistic narcissism. Moreover, we did not observe considerable (i.e., $\geq .30$) cross-loadings on different factors. These findings supported the validity of the newly developed 16-item NAS (Hypothesis 3.4).

Study 4: Temporal Stability Across 8 Weeks

Method

Participants and Procedure

As outlined in the preregistration, the minimal sample size to detect a hypothesized two-tailed $r \geq .50$ with $\alpha = .01$ and power

of .95 was 62. To account for anticipated dropout due to the 8-week retest interval, we invited all 456 participants from Study 3 for the follow-up. Participants were given the option to enter a raffle where we distributed 15 vouchers worth approximately €11 each and one voucher worth approximately €110. The final sample size exceeded the required sample by 170%, resulting in a sample of 168 participants (powered to detect $r \geq .31$ with $\alpha = .01$ and power of .95) aged between 18 and 55 ($M = 26.18$; $SD = 6.71$; 79.8% females).

Measures

Participants completed the three adjective-based measures of narcissism as described in Study 3.

Hypotheses

This study aimed to test the 8-week temporal stability of the NAS. We hypothesized that the NAS would be temporally stable (Hypothesis 4.1; Wright & Simms, 2016). In contrast to the registration protocol, we expanded our assessments after the eighth week to include not only the NAS but also the NVS and the NGS. Therefore, we introduced additional hypotheses suggesting that both the NVS and the NGS should exhibit temporal stability over 8 weeks (Hypothesis 4.2) and that the NAS would display the same level of stability as the NVS and the NGS (Hypothesis 4.3; Wright & Simms, 2016).

Statistical Analyses

To examine the 8-week temporal stability (Hypothesis 4.1 and Hypothesis 4.2), we used Pearson's correlation coefficient. Also, we used Fisher's Z test to compare the correlation coefficients to assess whether the NAS is characterized by the same stability over time as the NVS and the NGS, respectively (Hypothesis 4.3).

Table 1

Zero-Order Correlations Between Adjective Scales of Narcissism and Other Measures of Narcissistic Personality

Narcissism	NAS	NGS	NVS	Z NAS versus NGS	Z NAS versus NVS
Agentic narcissism					
FFNI agentic extraversion	.38***	.61***	.02	6.60***	7.28***
NARQ admiration	.31***	.66***	.03	10.15***	5.59***
NPI	.40***	.55***	.05	4.20***	7.13***
PNI pathological grandiosity	.30***	.39***	.28***	2.32*	0.41
Antagonistic narcissism					
FFNI self-centered antagonism	.60***	.47***	.29***	3.84***	7.14***
NARQ rivalry	.55***	.39***	.42***	4.47***	3.04***
VIEQ enmity	.50***	.23***	.59***	7.09***	2.24*
Neurotic narcissism					
FFNI narcissistic neuroticism	.08	-.15**	.55***	5.50***	10.09***
VIEQ isolation	.23***	-.09	.62***	7.71***	8.93***
PNI pathological vulnerability	.40***	.19**	.60***	5.31***	4.78***
HSNS hypersensitive narcissism	.33***	.17***	.56***	3.97***	5.24***

Note. NAS = Narcissistic Antagonism Scale; NGS = Narcissistic Grandiosity Scale; NVS = Narcissistic Vulnerability Scale; FFNI = Five-Factor Narcissism Inventory; NARQ = Narcissistic Admiration and Rivalry Questionnaire; NPI = Narcissistic Personality Inventory; PNI = Pathological Narcissism Inventory; VIEQ = Vulnerable Isolation and Enmity Questionnaire; HSNS = Hypersensitive Narcism [Sic] Scale.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

Factor Loadings of the Exploratory Factor Analysis of the Different Narcissism Scales

Narcissism	Agentic	Antagonistic	Neurotic
Agentic narcissism			
NGS grandiosity	.51	.44	-.16
FFNI agentic extraversion	.80	.09	-.09
NARQ admiration	.87	.04	-.12
NPI	.54	.31	-.09
PNI pathological grandiosity	.77	.18	.36
Antagonistic narcissism			
NAS antagonism	.12	.66	.14
FFNI self-centered antagonism	.09	.74	.11
NARQ rivalry	.15	.51	.40
VIEQ enmity	-.05	.46	.66
Neurotic narcissism			
NVS vulnerability	-.04	.04	.67
FFNI narcissistic neuroticism	.01	-.01	.86
VIEQ isolation	-.23	.23	.89
PNI pathological vulnerability	.16	-.16	.78
HSNS hypersensitive narcissism	.14	-.14	.73

Note. NGS = Narcissistic Grandiosity Scale; FFNI = Five-Factor Narcissism Inventory; NARQ = Narcissistic Admiration and Rivalry Questionnaire; NPI = Narcissistic Personality Inventory; PNI = Pathological Narcissism Inventory; NAS = Narcissistic Antagonism Scale; VIEQ = Vulnerable Isolation and Enmity Questionnaire; NVS = Narcissistic Vulnerability Scale; HSNS = Hypersensitive Narcissism [Sic] Scale.

Results

Table 3 presents the correlation coefficients between the two analyzed time points. The new measure of antagonistic narcissism was positively correlated with both agentic and neurotic narcissism at both time points. Importantly, the strength of these correlations remained consistently high across time for all narcissism measures, supporting Hypothesis 4.1 and Hypothesis 4.2. Specifically, no significant difference in temporal stability was found between the NAS and the NGS ($Z = 0.22$; $p = .413$) or the NVS ($Z = 0.85$; $p = .197$), indicating that the newly developed NAS maintained a high level of temporal stability comparable to existing measures of agentic and neurotic narcissism (Hypothesis 4.3).

Table 3

Temporal Stability of Adjective-Based Scales of Narcissism Across 8 Weeks

Narcissism	Time 1			Time 2	
	NGS	NAS	NVS	NGS	NAS
Time 1					
NAS	.60***				
NVS	.10*	.40***			
Time 2					
NGS	.70***	.32***	-.05		
NAS	.41***	.71***	.34***	.55***	
NVS	-.08	.30***	.75***	-.03	.41***

Note. NGS = Narcissistic Grandiosity Scale; NAS = Narcissistic Antagonism Scale; NVS = Narcissistic Vulnerability Scale.

* $p < .05$. *** $p < .001$.

Study 5: Daily State Narcissism: Within- and Between-Person Structure

Method

Participants and Procedure

The sample comprised 317 participants aged between 18 and 73 ($M = 25.30$, $SD = 11.05$; 70.7% females) recruited among university students and people from the general population (recruited by students for course credit). First, participants filled out all trait measures through an online form (link available through the project website) and, upon completion, provided their email addresses to receive information about the daily measurement procedure. This included, for example, an infographic with a detailed description of daily measures, two instructional videos demonstrating application usage, and an individual ID. Then, participants were asked to download the SEMA3 application on their smartphones and to enter their individual participant ID on the welcome screen. For 30 days, starting at 6 p.m., participants received a push notification containing daily questions related to the events from the past day. The survey remained active until 11 p.m. Answering to all questions was set as mandatory. Participants who responded to at least 70% of the surveys received online vouchers, each valued at approximately €11.50. Additionally, a drawing for extra online vouchers, approximately €115 each, was conducted among participants who responded to at least 80% of the surveys.

Measures

Adjective Measures of Narcissism. To assess trait narcissism, we used the same set of measures as in Study 3. For the assessment of daily state narcissism, we used four items from the NVS (Ignored, Resentful, Misunderstood, Underappreciated) and the NGS (Brilliant, Glorious, Powerful, Prestigious), previously employed in experience-sampling method studies (Edershire & Wright, 2021). To maintain balance, we also selected four items from the NAS (Abusive, Nasty, Exploitative, and Depreciating). The selection of NAS items was based on factor loading (i.e., $>.60$), but also, potential items were discussed by the authors in terms of face validity. Of importance, these particular items were outlined in our registration before data collection efforts. In the daily protocol, participants evaluated each adjective using a visual analogue slider bar (0 = *not at all* to 100 = *completely*).

Hypotheses

In our preregistration,² we assumed that the daily NAS, along with the NVS and the NGS, would replicate a three-factor structure of narcissism at both the within- and between-person levels (Hypothesis 5; Miller et al., 2021; Rogoza, Krammer, et al., 2024).

Statistical Analyses

We used multilevel confirmatory factor analysis (Lüdtke et al., 2007) to test whether daily state narcissism, measured by the NAS

² Although the hypothesis presented in Study 5, which converges with that in Study 6, was not preregistered, the data collection effort took place in May–July 2023, while the data collection effort in Study 6 took place in May–July 2022.

alongside the NVS and the NGS, replicates a three-factor structure (Hypothesis 5). This involved estimating latent structures at both within- and between-person levels. To evaluate model fit, we inspected root-mean-square error of approximation (RMSEA), comparative fit index (CFI), and standardized root-mean-square residual (SRMR; which is reported for both levels as in contrast to RMSEA and CFI, it is not driven by the overall model fit and its chi-square statistic). We adhered to standard recommendations for evaluating structural equation models: CFI > .90; RMSEA < .08; SRMR < .10 (Krammer, 2024; Schermelleh-Engel et al., 2003).

of the covariance between state NAS and NVS both within- and between-person was stronger than the typically observed between-trait antagonistic and neurotic narcissism. The present study's results supported the hypothesized three-factor model of state narcissism (Hypothesis 5).

Study 6: Momentary State Narcissism: Within- and Between-Person Structure, Invariance Across Protocols, and Convergent and Divergent Validity

Results

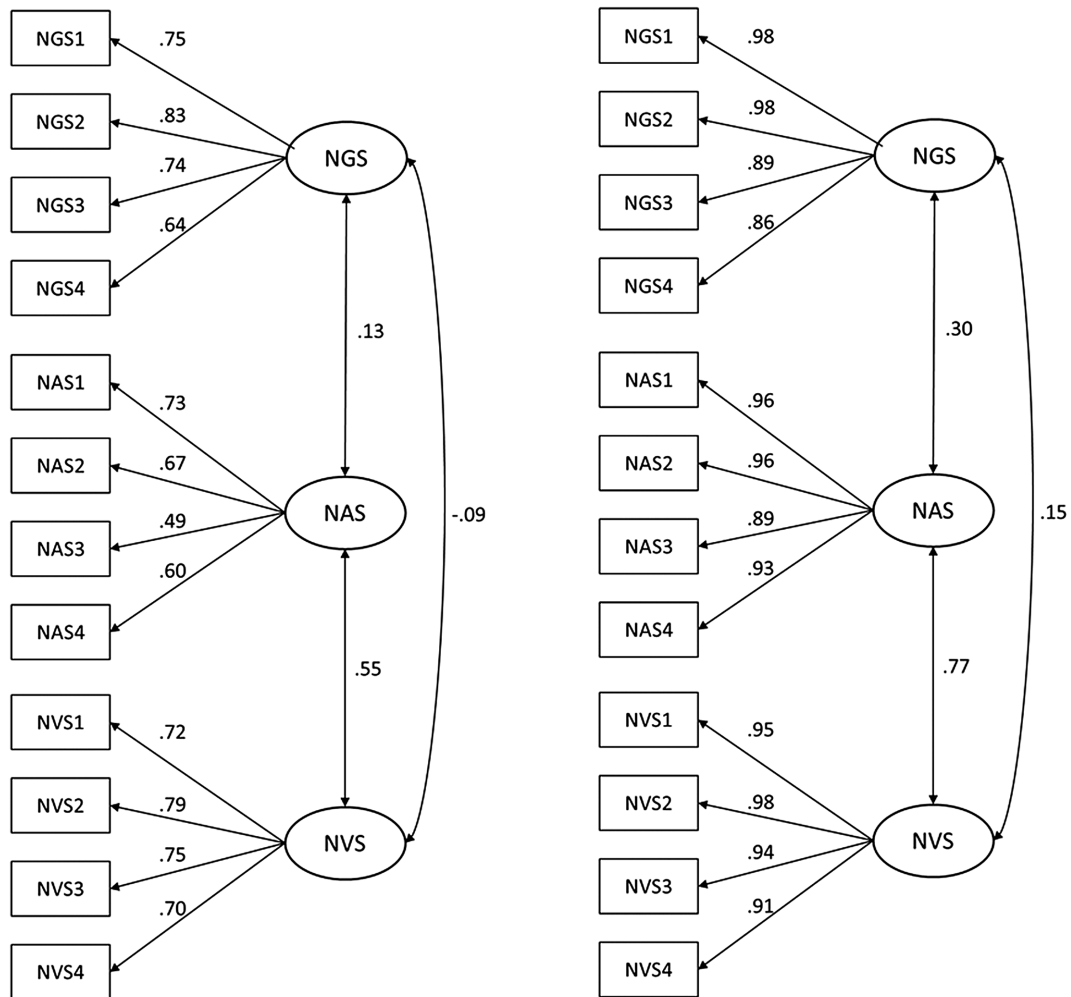
The analyzed three-factor model demonstrated a good fit to the data: $\chi^2(102) = 986.65$; $p < .001$; CFI = .945; RMSEA = .032; SRMR_{within} = .032; SRMR_{between} = .47. The strength of the factor loadings was adequate for all items (Figure 1). Notably, the strength

Method

Participants and Procedure

The sample comprised 199 participants aged between 18 and 55 ($M = 25.21$, $SD = 6.24$; 75.4% females). The procedure was analogous to Study 5, except for the fact that participants received

Figure 1
Within- (Right) and Between- (Left) Person Structure of Daily Narcissism



Note. Presented coefficients are standardized. All factor loadings were significant at $p < .001$; all covariances were significant at $p \leq .019$. NGS = Narcissistic Grandiosity Scale; NAS = Narcissistic Antagonism Scale; NVS = Narcissistic Vulnerability Scale.

push notifications six times a day, from 9 a.m. to 9:15 p.m., each with a 60-min window for completion.

Within-Person Measures

Participants were instructed to respond regarding the present moment. All items were assessed using a visual analogue slider bar (0 = *not at all* to 100 = *completely*).

Adjective Measures of Narcissism. We used the same set of 12 adjectives as in Study 5.

Affect (Thompson, 2007). To measure within-person affect, we used the following adjectives: inspired, determined, and active for positive affect and hostile, ashamed, and nervous for negative affect.

Empathy (Batson et al., 1983). We used the following four adjectives to capture within-person empathy: soft-hearted, warm, compassionate, and tender.

Self-Esteem (Geukes et al., 2017). As previously reported in the literature, we used the following three items to capture self-esteem: “I am satisfied with myself,” “I trust in my abilities,” and “I am satisfied with my appearance.”

Between-Person Measures

Unless otherwise indicated, participants used a 5-point scale (1 = *definitely disagree* to 5 = *definitely agree*) for the following measures.

Adjective Measures of Narcissism. We used the same measures capturing trait narcissism as described in Study 3.

Big Five Personality Traits. We used the 20-item version of the International Personality Item Pool–Big Five Markers questionnaire (Topolewska et al., 2014) to assess extraversion, intellect (i.e., renamed openness to experience), emotional stability (i.e., reversed neuroticism), conscientiousness, and agreeableness.

Aggressiveness. To capture aggressiveness, we used the 29-item Aggression Questionnaire (Buss & Perry, 1992). It captures four major components of aggression: physical and verbal aggression, anger, and hostility.

Unforgiveness. To measure unforgiveness, we used the 12-item Transgression Related Interpersonal Motivations Inventory (McCullough et al., 1998). Participants were instructed to think of a person who treated them unfairly in the past. Following this, they recalled their thoughts and feelings during the incident. Subsequently, they responded to 12 items capturing avoidant and vengeful motivations.

Aggressive Inclinations. To capture behavioral inclinations toward aggression, we administered the Voodoo Doll Task (DeWall et al., 2013). Participants were first instructed to think again of the transgressor from the previous measure. They were then presented with an image of a voodoo doll and asked to visualize it as the person who mistreated them. Next, participants were informed that previous studies revealed that it is possible to release negative energy by inserting virtual pins into the doll. Participants then specified the number of pins they would like to insert into the doll, with responses constrained to a range from 0 to 51 pins.

Impulsivity. We used the following three items to capture impulsivity: “I tend to do things without thinking,” “I am self-controlled,” and “I act impulsively” (Geukes et al., 2019).

Machiavellianism and Psychopathy. To capture these personality traits, we used the 18 items from the Short Dark Triad questionnaire (Jones & Paulhus, 2014).

Affect. We used the brief 10-item version of Positive and Negative Affect Schedule (Thompson, 2007; Watson et al., 1988) to capture positive and negative affect.

Self-Esteem. We used the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965). Participants were rating the degree of their agreement with each statement using a 4-point scale (1 = *definitely disagree* to 4 = *definitely agree*).

Empathy. We captured empathy by aggregating two subscales of the Interpersonal Reactivity Index (Davis, 1983), namely, perspective taking and emotional concern.

Mindfulness. We measured trait mindfulness using the 20-item Philadelphia Mindfulness Scale (Cardaciotto et al., 2008). This scale assesses two distinct aspects of mindfulness: acceptance and awareness.

Circumplex of Personality Metatraits Questionnaire (Strus & Cieciuch, 2021). This is a 72-item measure of eight unipolar personality metatraits, which are organized within a circumplex structure: Beta-Plus/Plasticity, Gamma-Plus/Integration, Alpha-Plus/Stability, Delta-Plus/Self-Restraint, Beta-Minus/Passiveness, Gamma-Minus/Disharmony, Alpha-Minus/Disinhibition, and Delta-Minus/Sensation-Seeking.

Hypotheses

According to the registration, we scrutinized the validity of state and trait NAS. First, we assumed that momentary state NAS, NVS, and NGS would reproduce a three-factor structure (Hypothesis 6.1). Although not preregistered, we additionally tested if the identified three-factor structure of narcissism would remain invariant across daily (i.e., Study 5) and momentary (i.e., Study 6) protocols (Hypothesis 6.2).

We hypothesized that momentary state NAS will be negatively associated with state self-esteem, state empathy, and positive affect (Hypothesis 6.3) and positively associated with state negative affect and trait NAS (Hypothesis 6.4).³ Additionally, we predicted that state NAS should positively correlate with the variability in state self-esteem (Hypothesis 6.5). At the between-person level, we aimed to assess the convergent and divergent validity of trait NAS. Preregistered hypotheses indicated that trait NAS should be negatively related to trait agreeableness, self-esteem, empathy, and mindfulness (Hypothesis 6.6), while it should be positively associated with trait aggressiveness, aggressive inclinations, unforgiveness, impulsiveness, Machiavellianism, psychopathy, and negative affect (Hypothesis 6.7). Furthermore, we expected trait NAS to demonstrate incremental validity beyond the indicators of neurotic and agentic narcissism in explaining the aforementioned criteria (Hypothesis 6.8).

As a final validation test, in Study 6, we tested if daily and momentary state antagonistic narcissism, assessed by the NAS, aligns with its theoretical location within the Circumplex of Personality

³ The hypothesis concerning positive affect was not registered. While initially we preregistered that within- and between-person NAS scores should be positively related, given that between scores are the average of the within scores and the within scores are person-mean centered around the between score, we present relations between between-person state NAS and trait NAS.

Metatraits (i.e., at a 270° angle; Hypothesis 6.9; cf. Rogoza, Crowe, et al., 2022; Rogoza, Kowalski, et al., 2022). Though not formally preregistered, we expected that the NVS and the NGS would be meaningfully located within the circumplex structure of personality metatraits (i.e., at angles of 225° and 315°, respectively; Hypothesis 6.10; cf. Rogoza, Ciecuch, et al., 2022). Finally, we expected that when analyzing all three scales collectively, the entire model would align congruently with the theoretically proposed locations within the circumplex (Hypothesis 6.11; Rogoza, Kowalski, et al., 2022).

Statistical Analyses

To test the factorial structure of momentary narcissism (Hypothesis 6.1), we followed the procedure described in Study 5. Additionally, we used multilevel–multigroup confirmatory factor analysis to test measurement invariance across daily and momentary factorial structures (Hypothesis 6.2). Typically, three models of invariance are estimated: configural (unconstrained model), metric (with constrained factor loadings), and scalar (with constrained item intercepts; Meredith, 1993). We augmented these analyses for measurement invariance across groups with invariance across levels (cf. cross-level invariance: Jak, 2019). We did so to heed the multilevel character of the compared data sets (for a similar approach in evaluating narcissism within and between person cf. Rogoza, Krammer, et al., 2024). More precisely, we also estimated an additional model before proceeding to metric invariance. In this model, we constrained the within- and between-person factor loadings to be equal across two levels. In the absence of clear recommendations for evaluating multilevel–multigroup invariance, we assessed invariance based on standard suggestions within the field, considering results invariant if the fit of subsequent models did not exceed .010 in CFI, RMSEA, and SRMR (Chen, 2007).

To test relations between momentary antagonistic narcissism and state self-esteem, empathy, positive affect (Hypothesis 6.3) and negative affect (Hypothesis 6.4), and variability in self-esteem (Hypothesis 6.5), we departed from the initially planned Pearson's correlation approach stated in the preregistration. Instead, we opted for the Dynamic Structural Equation Modeling approach (Asparouhov et al., 2018; McNeish, 2021) due to its capability of handling missing data and respondents not available for at all time points. This approach has several advantages as compared to evaluation of the person standard deviation or mean-squared successive difference, which tends to mix gross variability and instability (McNeish, 2021). To assess the relations with variability in momentary self-esteem, we modeled two indices: self-esteem's inertia (i.e., an autoregressive parameter reflecting the extent to which state self-esteem carries over from one moment to another, the time needed to return to equilibrium after momentary change) and innovation variances (which include everything that was not measured explicitly but affects the course of the observed variables, reflecting individual variability; Stapp et al., 2023). Considering that mean scores are artificially correlated with estimates of variability, in the tested Dynamic Structural Equation Modeling approach model, we controlled for the level of momentary state self-esteem (i.e., person mean; Baird et al., 2006).

To test the relationship between trait antagonistic narcissism and other trait measures (Hypotheses 6.6 and 6.7), we used Pearson's correlation coefficient. Additionally, we used commonality analysis

(Nimon et al., 2008) to determine if the newly developed scale contributes to existing measures (Hypothesis 6.8). Finally, to test the location of the NAS (Hypothesis 6.9), NVS, NGS (Hypothesis 6.10), and the entire three-factor model itself within the circumplex model of personality metatraits (Hypothesis 6.11), we followed a three-step procedure (Rogoza et al., 2021). This involved (a) using structural equation modeling (Browne, 1992) to analyze the fit of the circumplex model itself (i.e., assuming equal spacing and communalities), deemed acceptable with CFI > .90 and RMSEA < .13 (Rogoza et al., 2021); (b) testing the location of the Narcissism scales using the Structural Summary Method (Zimmermann & Wright, 2017); and (c) testing congruence of the empirical locations estimated in Structural Summary Method with theoretical expectations using the Procrustes rotation (Strus & Ciecuch, 2017).

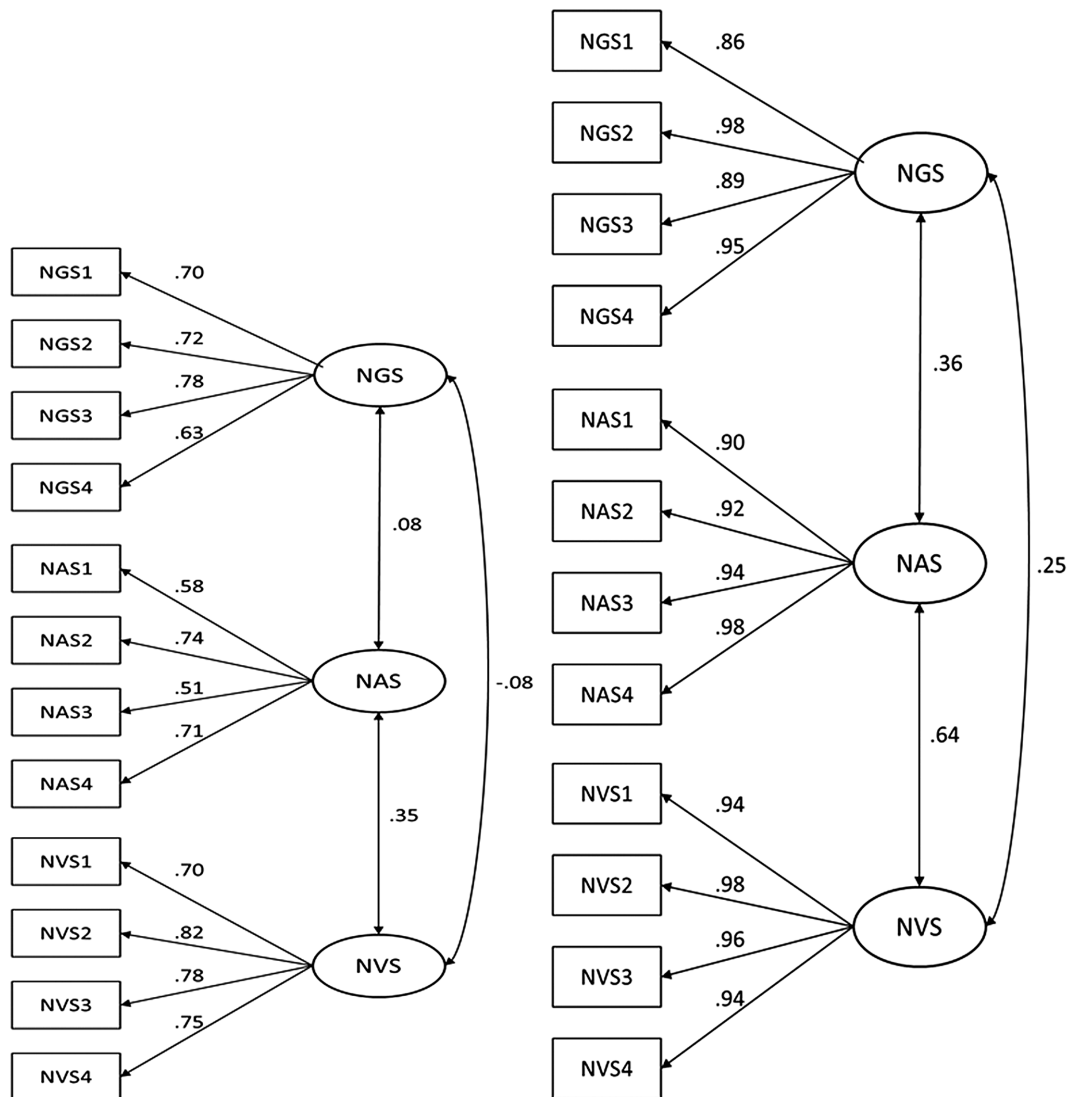
Results

Prior to examining convergent and divergent validity, we evaluated whether the hypothesized three-factor model of state narcissism replicates at the within- and between-person levels. Similar to Study 5, the analyzed measurement model demonstrated a good fit to the data: $\chi^2(102) = 478.42$; $p < .001$; CFI = .968; RMSEA = .023; SRMR_{within} = .024; SRMR_{between} = .044. These results provided robust support for our expectations, supporting Hypothesis 6.1. The standardized factor loadings were all adequate (Figure 2). Similar to daily state narcissism, there was a notably stronger covariance between momentary state NAS and NVS compared to the typical correlation between trait antagonistic and neurotic narcissism. In contrast to the trait–narcissism findings, the covariance between the NAS and the NGS, while positive at the between-person level, was nonsignificant at the within-person level ($p = .078$). Although such a covariance pattern between latent factors was unexpected, these results also supports the three-factor structure of state narcissism.

Next, we examined the invariance across daily diary and momentary assessment of the three-factor model of narcissism. The fit indices of the tested models are presented in Table 4. The configural model appeared to be well-fitted to the data, in line with the results reported above. The addition of the cross-level invariance did not result in decreasing fit of the model, which supports the cross-level invariance. Constraining factor loadings to be equal across two different protocols also did not alter the model fit. Finally, constraining the item intercepts to be equal while slightly worsening the fit to the data, we found that the results were still within the assumed boundaries, thus, supporting the Hypothesis 6.2. The comparison of latent means in a scalar model revealed that there were significant differences only in regard to momentary antagonistic narcissism, which was lower than its daily counterpart ($d = -.25$; $p = .023$). Accordingly, no differences were found between daily and momentary agentic ($d = .08$; $p = .343$) nor neurotic narcissism ($d = .01$; $p = .886$).

Table 5 details the estimates from the Dynamic Structural Equation Modeling approach presenting the within-person relations of momentary state narcissism to momentary state empathy, self-esteem, affect, as well as between-person relations to variability in self-esteem and trait narcissism. Supporting our expectations, within-person associations fully supported our predictions. Momentary state NAS was negatively related to state empathy, self-esteem, and positive affect (Hypothesis 6.3) and positively related to state negative affect and trait NAS as well trait NVS and

Figure 2
 Within- (Right) and Between- (Left) Person Structure of Momentary Narcissism



Note. Presented estimates are standardized. All factor loadings were significant at $p < .001$; all covariances (except for the covariance between within-person NAS and NGS, which was non-significant at $p = .078$) were significant at $p \leq .016$. NGS = Narcissistic Grandiosity Scale; NAS = Narcissistic Antagonism Scale; NVS = Narcissistic Vulnerability Scale.

NGS (Hypothesis 6.4). While self-esteem states were auto-predictive ($\beta = .39$; $p < .001$), the NAS was the only Narcissism scale to be negatively related to self-esteem's inertia ($\beta = -.31$; $p = .013$), suggesting higher instability. However, the NAS was unrelated to variability in self-esteem states ($\beta = .13$; $p = .100$), though the direction of the observed relation was congruent with our expectations, providing partial support for Hypothesis 6.5. Among other narcissism facets, only the NGS was negatively related to variability in momentary self-esteem ($\beta = -.20$; $p = .030$).

Next, we analyzed the relations between trait antagonistic narcissism and a broad range of variables (Table 6). As preregistered, the trait NAS was negatively related to trait agreeableness, self-esteem, empathy (Hypothesis 6.6) and positively related to trait aggressiveness, aggressive inclinations, revenge, impulsiveness,

negative affect, Machiavellianism, and psychopathy (Hypothesis 6.7). The expected negative relationship with trait mindfulness approached significance ($p = .055$ for zero-order relation and $p = .069$ for β -weight). In line with our expectations, trait NAS demonstrated incremental validity beyond trait NGS and NVS for more than two thirds of the compared criteria (Hypothesis 6.8). The exceptions were anger, hostility, impulsiveness, self-esteem, negative affect, and mindfulness, where the NAS was outperformed by either the NGS or the NVS. Overall, trait NAS demonstrated a consistent pattern of relations indicative of antagonistic narcissism and contributed significantly to explaining different constructs not covered by existing adjective scales. This again supported the utility of the NAS.

Finally, we aimed to locate state momentary narcissism within the Circumplex of Personality Metatraits. Prior to assessing empirical

Table 4

Results of the Multilevel–Multigroup Confirmatory Factor Analysis Comparing the Three-Factor Model of Narcissism Across Daily and Momentary Perspectives

Model	$\chi^2(df)$	<i>p</i>	CFI	RMSEA	SRMR _{within}	SRMR _{between}
Configural	1485.39 ₍₂₀₄₎	<.001	.954	.029	.029	.049
Cross level	1602.60 ₍₂₂₂₎	<.001	.952	.029	.029	.054
Metric	1668.18 ₍₂₃₁₎	<.001	.949	.029	.030	.054
Scalar	1930.51 ₍₂₄₀₎	<.001	.939	.031	.030	.063
Cross level versus configural	55.82 ₍₁₈₎	<.001	.002	.000	.000	.005
Metric versus cross level	65.26 ₍₉₎	<.001	.003	.000	.001	.000
Scalar versus metric	281.63 ₍₉₎	<.001	.010	.002	.000	.007

Note. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; Configural = configural multigroup with on constrains; Cross level = cross-level measurement invariance within each group; Metric = Cross level + constrains for metric measurement invariance across groups on both levels; Scalar = Metric + constrains for scalar measurement invariance across groups on the between-level.

locations, we verified whether the metatraits were organized within a full circumplex structure (i.e., with equal spacing and commonalities). The results revealed a good model fit: $\chi^2(24) = 68.48; p < .001$; CFI = .933; RMSEA = .097. Next, using the Structural Summary Method, detailed in Table 7, we determined the angular location of momentary narcissism within the Circumplex of Personality Metatraits. The fit of momentary narcissism was acceptable. Given the absence of a general factor within the Circumplex of Personality Metatraits, elevation estimates were accordingly low. The amplitudes of all Narcissism scales were modest and comparable. The empirical angle of the state NAS largely deviated from the expected theoretical locations (thus, rejecting Hypothesis 6.9). The empirical location of the state NGS was also characterized by the low level of congruence, while the location of the NVS was located near γ -Minus as expected (partial support for Hypothesis 6.10). The overall model congruence (.83) suggested a suboptimal alignment between empirical and theoretical angles; thus, the final hypothesis (Hypothesis 6.11) was rejected as well.

General Discussion

Understanding the dynamic nature of narcissism requires a nuanced exploration of its three facets at the state level (Back, 2018; Miller et al., 2021). However, existing momentary narcissism measures—the NGS and the NVS—fall short in capturing antagonistic narcissism (Welsh et al., 2024; Wright & Edershile, 2018), hindering a more complete understanding of fluctuations in momentary state narcissism. This is unfortunate, given that the antagonistic facet is the most central aspect of narcissistic personality and is related to heightened levels of variability in narcissistic states (Di Pierro et al.,

2022; Miller et al., 2021; Rogoza, Kowalski, et al., 2022; Rogoza, Krammer, et al., 2024). Recognizing this conceptual gap, our study aimed to develop a new adjective-based measure of antagonistic narcissism—the NAS. By incorporating this crucial facet, we seek to provide researchers with a comprehensive tool to investigate the intricate dynamics of narcissistic personality more effectively. This endeavor not only enriches the field, but it also enhances our ability to capture the nuanced variability in narcissistic states, facilitating a more holistic understanding of this complex personality construct.

Psychometric Evaluation of the NAS

The NAS serves as a valuable and distinctive addition to the landscape of state measures of narcissism, meaningfully complementing and extending the existing NGS and the NVS (Crowe et al., 2016, 2018; Rosenthal et al., 2020). While the NGS and the NVS have been instrumental in capturing agentic and neurotic facets of narcissism (Welsh et al., 2024), the NAS addresses a critical shortcoming the existing scales by specifically targeting antagonistic narcissism. We validated the NAS in a series of six studies. In Study 1, we assessed whether the adjectives intended to measure narcissistic antagonism (Heinze et al., 2020) are internally consistent and form one latent factor—the results supported this claim. It should be noted, however, that the used factor-loading threshold (i.e., $\lambda > .60$) was stringent as compared to the ones typically observed in the literature (i.e., $\lambda > .50$; Clark & Watson, 2019). This resulted in a removal of items, such as aggressive and domineering, which might be also considered as good indicators of narcissistic antagonism, yet, in an attempt to shorten the scale were removed. In Study 2, we assessed whether the NAS, together with the NGS and the NVS,

Table 5

Within- and Between-Person Relations of Momentary State Narcissism

Narcissism	State				Trait		
	Empathy	Self-esteem	Negative affect	Positive affect	NGS	NAS	NVS
NGS	.30***	.45***	-.09***	.46***	.65***	.14*	-.13*
NAS	-.08***	-.07***	.29***	-.04**	.29***	.50***	.29***
NVS	-.14***	-.18***	.48***	-.07***	.19***	.29***	.33***

Note. NGS = Narcissistic Grandiosity Scale; NAS = Narcissistic Antagonism Scale; NVS = Narcissistic Vulnerability Scale.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6
Relations Between Trait Narcissism to Validity Criteria and the Contribution of NAS Over the Existing Scales

Scale	NGS <i>r</i> β	NAS <i>r</i> β	NVS <i>r</i> β	% unique to NAS
Extraversion	.24*** .29***	-.07 -.10	-.27*** -.23**	4.19
Agreeableness	-.18* .08	-.50*** -.59***	-.12 .14	82.44
Conscientiousness	.08 .05	-.04 .06	-.26*** -.29***	3.28
Emotional stability	.19** .17*	-.12 .06	-.56*** -.59***	0.55
Intellect	.15* .25**	-.15* -.24**	-.15* -.05	45.23
Physical aggression	.26*** .07	.49*** .44***	.25*** .06	47.87
Verbal aggression	.23*** .10	.36*** .29***	.19** .06	37.09
Anger	.10 .05	.31*** .11	.47*** .42***	3.05
Hostility	.03 -.08	.39*** .24**	.52*** .42***	11.61
Aggressive inclinations	.03 -.08	.27*** .26**	.21* .10	48.26
Machiavellianism	.31*** .13	.52*** .42***	.28*** .10	38.11
Psychopathy	.32*** .08	.59*** .56***	.24*** -.01	54.83
Impulsiveness	.06 .03	.21** .06	.34*** .31***	1.70
Avoidance	-.08 -.03	-.08 -.10	.05 .09	43.27
Revenge	.12 -.01	.37*** .29***	.31*** .19*	32.10
Self-esteem	.40*** .47***	-.17* -.15*	-.58*** -.52***	2.85
Empathy	-.22*** .00	-.46*** -.50***	-.12 .09	71.14
Positive affect	.36*** .39***	.00 -.06	-.28*** -.25***	1.13
Negative affect	-.08 -.03	.17* .12	.65*** .70***	2.00
Acceptance	-.14* -.16*	.13 .03	.39*** .37***	0.37
Awareness	.15* .22**	-.14 -.16	-.24*** -.18*	15.88

Note. NGS = Narcissistic Grandiosity Scale; NAS = Narcissistic Antagonism Scale; NVS = Narcissistic Vulnerability Scale.
* $p < .05$. ** $p < .01$. *** $p < .001$.

forms a three-factorial solution corresponding to the theoretical solution (Miller et al., 2021), and the results fully supported our expectations. In Study 3, we assessed the convergent validity of the proposed measure through an investigation of its relationship to different validated measures of narcissism. The results were highly congruent with our expectations as the NAS was positively related to all measures of narcissism (especially to those measuring antagonistic narcissism). We noticed two exceptions, that is, the NAS was correlated with enmity to the same extent as the NVS. This finding is in line with studies showing that enmity captures vulnerable expressions of antagonistic narcissism (Rogoza, Kowalski, et al., 2022; Welsh et al., 2024). The second deviation regarded a null correlation with narcissistic neuroticism. Although in contrast with theory, this finding closely aligns with the literature on the FFNI, where self-centered antagonism is also not related to narcissistic neuroticism (Jauk et al., 2023). Finally, we assessed if, in a joint-factor analysis (M. L. Crowe et al., 2019), the NAS would indicate the antagonistic narcissism factor. The results supported the three-factor model, and the NAS was, as expected, an indicator of antagonistic narcissism. In Study 4, we assessed the temporal stability of measurement. The results revealed that across the period of 8 weeks, the NAS was characterized by good temporal stability. Of

interest, there were no differences in how all adjective-based scales were temporally stable across time.

In Study 5, we investigated the within- and between-person factorial structure of narcissism assessed in a daily diary protocol. We found full support for the three-factor model assessed on a daily basis, replicating existing findings using an adjective-based measure (Rogoza, Kramer, et al., 2024). In Study 6, we replicated these findings measuring narcissism on a momentary basis. Of importance, the factorial structure was fully invariant, regardless of the methodological protocol, providing strong support for the measured construct (Miller et al., 2021). We also assessed convergent and divergent validity of state and trait narcissism. For state narcissism, we found that state narcissism facets were positively related to their trait counterparts (e.g., state NAS was positively related to trait NAS). As preregistered, we found negative relations between state NAS and state empathy, self-esteem, and positive affect and a positive relation to state negative affect. Contrary to our expectations, we found that the NAS was related to higher instability but not to variability of momentary self-esteem. In the present study, although we used the same set of items as reported in Geukes et al. (2017), instead of using a Likert-type scale, we used a visual analogue scale to provide respondents with a more nuanced

Table 7
Structural Summary of State Narcissism Within the Circumplex of Personality Metraits

Narcissism	Fit	Elevation	Amplitude	Empirical angle	Theoretical angle	Congruence
NGS	.83	.00 [-.05, .05]	.25 [.15, .36]	11.5 [347, 36.9]	315	.78
NAS	.95	.00 [-.07, .06]	.28 [.20, .37]	242.7 [218.8, 266.7]	270	.71
NVS	.91	.05 [-.01, .11]	.25 [.16, .35]	246.7 [225, 271.1]	225	1.00

Note. NGS = Narcissistic Grandiosity Scale; NAS = Narcissistic Antagonism Scale; NVS = Narcissistic Vulnerability Scale.

means of expressing their narcissism. This finer granularity may have potentially impacted the observed results. Future studies, may consider changing the response scale for assessing momentary self-esteem. We also assessed how trait NAS is associated with other conceptually related variables and whether the proposed scale is characterized by incremental validity over the NGS and the NVS. We have found strong support for incremental validity for a range of relations (cf. Kalowski et al., 2021; Rogoza, Kowalski, et al., 2022). For instance, the NAS explained the majority of variance of agreeableness, physical and verbal aggression, aggressive inclinations, Machiavellianism, psychopathy, vengefulness, and empathy. Contrary to our expectations, the NAS did not explain a considerable amount of variance of anger, hostility, impulsiveness, self-esteem, affect, and mindfulness. Taken together, these findings mostly support the validity of the newly proposed measure of antagonistic narcissism.

Finally, we assessed the location of state narcissism within the Circumplex of Personality Metatraits (Strus & Cieciuch, 2021). According to the existing literature on trait narcissism (Rogoza et al., 2019, 2021), we preregistered our expectations that state NAS should be located at Alpha-Minus, while state NVS and NGS at Gamma-Minus and Delta-Minus, respectively. The obtained results mostly rejected our hypotheses. In fact, only the NVS was located in the expected location. While this finding was in contrast to findings from personality psychology, from a clinical perspective, they might be interpreted as supportive. That is, clinicians report that fluctuations occur in individuals scoring high on grandiose but not vulnerable narcissism (Gore & Widiger, 2016; Oltmanns & Widiger, 2018; Ronningstam, 2005). In this vein, our findings may suggest that, whereas the NAS and the NGS are more prone to change, the NVS is more stable across time.

Constraints on Generality

The participants recruited for all the reported studies were from Western, educated, industrialized, rich, and democratic countries, mostly people from Eastern Europe (i.e., Poland). Furthermore, we did not gather information on racial or ethnic identification of the studied samples as most of the research were conducted on Polish participants, which is a highly homogenous national group. Recent reports from national statistics bureau reveal that 97.7% of Polish citizens are declaring Polish ethnicity, and 98.4% of the population use Polish as the main language. In regard to migrants, almost two thirds of the population of the Polish migrants are the citizens of the Ukraine, which is culturally close to Poland. Thus, the findings from the current report should not be unanimously generalized to more diverse populations (e.g., American).

Clinical Implications for Future Research

Research on trait narcissism reached broad agreement that narcissism is best described by three facets of agentic, antagonistic, and neurotic narcissism (Miller et al., 2021). Among these, antagonistic narcissism is the most central and is usually triggered by the experienced ego threats (Back, 2018; Grapsas et al., 2020; Rogoza, Kowalski, et al., 2022). This central position within the structure of narcissism, as well as the processual character of antagonistic narcissism, emphasizes its role in the process of fluctuation in narcissistic states. Evidence from daily diary studies also supports

the significant role of antagonistic narcissism (Rogoza, Krammer, et al., 2024). Yet, changes in state narcissism may have a more momentary character (Edershile & Wright, 2021), which are impossible to assess without an appropriate measure. Our work fills this gap by providing clinical research with a novel adjective-based measure of antagonistic narcissism suitable for use in the assessment of momentary narcissistic states.

Understanding how narcissistic states fluctuate is one of the major challenges in narcissism research with broad clinical implications. Individuals in grandiose narcissism states usually do not seek help nor see any problem with it (Ellison et al., 2013; Ronningstam, 2005). Moreover, grandiosity can explain a large portion of challenges that therapists experience during the treatment, such as poor recognition of internal states, difficulty accessing one's emotions, or extreme competitiveness. In fact, helping patients to shift from grandiosity to discussing experiences of real competencies and weaknesses is considered as one of the most central processes in changing narcissism therapeutically (Weinberg & Ronningstam, 2020). In other words, the therapy process could be used to dissolve states of grandiosity and evoke intense and painful reactions, which could be worked on during the therapy. Although this process is an effective way of treatment (Diamond et al., 2023), it is empirically understudied, and our work is the first step toward achieving this goal.

Future work should focus on testing the fluctuation hypothesis, encompassing all three facets of narcissism. While most of the existing EMA studies were conducted in naturalistic settings (e.g., Edershile & Wright, 2021; Rogoza, Krammer, et al., 2024), novel approaches, such as the Competitive Behavioral Assessment of Rivalry and Admiration (Szűcs et al., 2020, 2023), open new avenues for assessing momentary changes in narcissistic states in experimental settings including clinical samples. Furthermore, future research might consider moving beyond self-reported data and start gathering physiological data (e.g., average heart rate) and/or using biologically triggered sensing (e.g., initializing the survey after deviating from personal average heart rate; Behnke et al., 2023; Hoemann et al., 2023). Also, as the fluctuations seem to occur in grandiose narcissistic individuals (Gore & Widiger, 2016; Oltmanns & Widiger, 2018), future research might consider gathering a prescreened sample of individuals scoring high on this particular trait (e.g., patients struggling with grandiose narcissism, Jauk et al., 2022). Finally, given that within the reported studies we did not introduce any form of validity screening, which is challenging in EMA studies, recent advancements may provide a more nuanced insight into the reported results after accounting for time spent reading the screens (Ulitzsch et al., 2024).

Conclusion

The current article introduces a new adjective-based measure of trait and state narcissistic antagonism—the NAS. In a series of six studies, we have provided strong psychometric evidence of measurement validity and showed that, together with the NGS and the NVS, our scale completes the measurement of narcissism, especially in regard to EMA studies. Previous studies emphasized the role of antagonistic narcissism in understanding the process of fluctuations (Back, 2018; Rogoza, Krammer, et al., 2024); however, to date, it was impossible to assess these from a momentary perspective. Our work provides such an opportunity,

integrates findings from the literature on trait narcissism within the research on state narcissism (Miller et al., 2021), and paves the way toward assessment of the fluctuation process in narcissism in a theoretically supported and fine-grained manner.

References

- Asparouhov, T., Hamaker, E. L., & Muthen, B. (2018). Dynamic structural equation models. *Structural Equation Modeling*, 25(3), 359–388. <https://doi.org/10.1080/10705511.2017.1406803>
- Back, M. D. (2018). The narcissistic admiration and rivalry concept. In A. D. Hermann, A. B. Brunnel, & J. D. Foster (Eds.), *Handbook of trait narcissism. Key advances, research methods, and controversies* (pp. 57–67). Springer. https://doi.org/10.1007/978-3-319-92171-6_6
- Back, M. D., Küfner, A. C., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. A. (2013). Narcissistic admiration and rivalry: Disentangling the bright and dark sides of narcissism. *Journal of Personality and Social Psychology*, 105(6), 1013–1037. <https://doi.org/10.1037/a0034431>
- Baird, B. M., Le, K., & Lucas, R. E. (2006). On the nature of intraindividual personality variability: Reliability, validity, and associations with well-being. *Journal of Personality and Social Psychology*, 90(3), 512–527. <https://doi.org/10.1037/0022-3514.90.3.512>
- Batson, C. D., O'Quin, K., Fultz, J., Vanderplas, M., & Isen, A. M. (1983). Influence of self-reported distress and empathy on egoistic versus altruistic motivation to help. *Journal of Personality and Social Psychology*, 45(3), 706–718. <https://doi.org/10.1037/0022-3514.45.3.706>
- Behnke, M., Saganowski, S., Kaczmarek, L. D., & Kazienko, P. (2023). *Emotions studied by computer scientists and psychologists—A complementary perspective* [Conference session]. IEEE International Conference on Pervasive Computing and Communications Workshops and Other Affiliated Events (PerCom Workshops), Atlanta, GA, United States.
- Browne, M. W. (1992). Circumplex models for correlation matrices. *Psychometrika*, 57(4), 469–497. <https://doi.org/10.1007/BF02294416>
- Buss, A. H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology*, 63(3), 452–459. <https://doi.org/10.1037/0022-3514.63.3.452>
- Cardaciotto, L., Herbert, J. D., Forman, E. M., Moitra, E., & Farrow, V. (2008). The assessment of present-moment awareness and acceptance: The Philadelphia Mindfulness Scale. *Assessment*, 15(2), 204–223. <https://doi.org/10.1177/1073191107311467>
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, 14(3), 464–504. <https://doi.org/10.1080/10705510701301834>
- Clark, L. A., & Watson, D. (2019). Constructing validity: New developments in creating objective measuring instruments. *Psychological Assessment*, 31(12), 1412–1427. <https://doi.org/10.1037/pas0000626>
- Crowe, M., Carter, N. T., Campbell, W. K., & Miller, J. D. (2016). Validation of the Narcissistic Grandiosity Scale and creation of reduced item variants. *Psychological Assessment*, 28(12), 1550–1560. <https://doi.org/10.1037/pas0000281>
- Crowe, M. L., Edershile, E. A., Wright, A. G. C., Campbell, W. K., Lynam, D. R., & Miller, J. D. (2018). Development and validation of the Narcissistic Vulnerability Scale: An adjective rating scale. *Psychological Assessment*, 30(7), 978–983. <https://doi.org/10.1037/pas0000578>
- Crowe, M. L., Lynam, D. R., Campbell, W. K., & Miller, J. D. (2019). Exploring the structure of narcissism: Toward an integrated solution. *Journal of Personality*, 87(6), 1151–1169. <https://doi.org/10.1111/jopy.12464>
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. <https://doi.org/10.1037/0022-3514.44.1.113>
- DeWall, C. N., Finkel, E. J., Lambert, N. M., Slotter, E. B., Bodenhausen, G. V., Pond, R. S., Jr., Renzetti, C. M., & Fincham, F. D. (2013). The voodoo doll task: Introducing and validating a novel method for studying aggressive inclinations. *Aggressive Behavior*, 39(6), 419–439. <https://doi.org/10.1002/ab.21496>
- Di Pierro, R., Amelio, S., Macca, M., Madeddu, F., & Di Sarno, M. (2022). What if I feel rejected? Borderline personality, pathological narcissism, and social rejection in daily life. *Journal of Personality Disorders*, 36, 559–582. <https://doi.org/10.1521/pedi.2022.36.5.559>
- Di Sarno, M., Zimmerman, J., Madeddu, F., Casini, E., & Di Pierro, R. (2020). Shame behind the corner? A daily diary investigation of pathological narcissism. *Journal of Research in Personality*, 85, Article 103924. <https://doi.org/10.1016/j.jrp.2020.103924>
- Diamond, D., Yeomans, F. E., Stern, B. L., & Kernberg, O. F. (2023). *Treating pathological narcissism with transference-focused psychotherapy*. Guilford Press.
- Edershile, E. A., Woods, W. C., Sharpe, B. M., Crowe, M. L., Miller, J. D., & Wright, A. G. C. (2019). A day in the life of narcissus: Measuring narcissistic grandiosity and vulnerability in daily life. *Psychological Assessment*, 31(7), 913–924. <https://doi.org/10.1037/pas0000717>
- Edershile, E. A., & Wright, A. G. C. (2021). Fluctuations in grandiose and vulnerable narcissistic states: A momentary perspective. *Journal of Personality and Social Psychology*, 120(5), 1386–1414. <https://doi.org/10.1037/pspp0000370>
- Ellison, W. D., Levy, K. N., Cain, N. M., Ansell, E. B., & Pincus, A. L. (2013). The impact of pathological narcissism on psychotherapy utilization, initial symptom severity, and early-treatment symptom change: A naturalistic investigation. *Journal of Personality Assessment*, 95(3), 291–300. <https://doi.org/10.1080/00223891.2012.742904>
- Fatfouta, R., & Rogoza, R. (2024). Playing the victim? Facets of narcissism, self-perceived victimhood, and the mediating role of negative affect. *Advances in Cognitive Psychology*, 20(2), 92–97. <https://doi.org/10.5709/acp-0419-0>
- Gentile, B., Miller, J. D., Hoffman, B. J., Reidy, D. E., Zeichner, A., & Campbell, W. K. (2013). A test of two brief measures of grandiose narcissism: The Narcissistic Personality Inventory–13 and the Narcissistic Personality Inventory–16. *Psychological Assessment*, 25(4), 1120–1136. <https://doi.org/10.1037/a0033192>
- Geukes, K., Breil, S. M., Hutteman, R., Nestler, S., Küfner, A. C. P., & Back, M. D. (2019). Explaining the longitudinal interplay of personality and social relationships in the laboratory and in the field: The PILS and the CONNEXT study. *PLOS ONE*, 14(1), Article e0210424. <https://doi.org/10.1371/journal.pone.0210424>
- Geukes, K., Nestler, S., Hutteman, R., Dufner, M., Küfner, A. C. P., Egloff, B., Denissen, J. J. A., & Back, M. D. (2017). Puffed-up but shaky selves: State self-esteem level and variability in narcissists. *Journal of Personality and Social Psychology*, 112, 769–786. <https://doi.org/10.1037/pspp0000093>
- Giacomin, M., & Jordan, C. H. (2016). The wax and wane of narcissism: Grandiose narcissism as a process or state. *Journal of Personality*, 84(2), 154–164. <https://doi.org/10.1111/jopy.12148>
- Gore, W. L., & Widiger, T. A. (2016). Fluctuation between grandiose and vulnerable narcissism. *Personality Disorders: Theory, Research, and Treatment*, 7(4), 363–371. <https://doi.org/10.1037/per0000181>
- Grapsas, S., Brummelman, E., Back, M. D., & Denissen, J. J. A. (2020). The “why” and “how” of narcissism.” A process model of narcissistic status pursuit. *Perspectives on Psychological Science*, 15(1), 150–172. <https://doi.org/10.1177/1745691619873350>
- Heinze, P. E., Fatfouta, R., & Schröder-Abé, M. (2020). Validation of an implicit measure of antagonistic narcissism. *Journal of Research in Personality*, 88, Article 103993. <https://doi.org/10.1016/j.jrp.2020.103993>
- Hendin, H. M., & Cheek, J. M. (1997). Assessing hypersensitive narcissism: A re-examination of Murray's Narcism Scale. *Journal of Research in Personality*, 31(4), 588–599. <https://doi.org/10.1006/jrpe.1997.2204>
- Hoemann, K., Wormwood, J. B., Barrett, L. F., & Quigley, K. S. (2023). Multimodal, idiographic ambulatory sensing will transform our

- understanding of emotion. *Affective Science*, 4(3), 480–486. <https://doi.org/10.1007/s42761-023-00206-0>
- Jak, S. (2019). Cross-level invariance in multilevel factor models. *Structural Equation Modeling: A Multidisciplinary Journal*, 26(4), 607–622. <https://doi.org/10.1080/10705511.2018.1534205>
- Jauk, E., Olaru, G., Schürch, E., Back, M. D., & Morf, C. C. (2023). Validation of the German Five-Factor Narcissism Inventory and construction of a brief form using ant colony optimization. *Assessment*, 30(4), 969–997. <https://doi.org/10.1177/10731911221075761>
- Jauk, E., Ulbrich, L., Jorschick, P., Höfler, M., Kaufman, S. B., & Kanske, P. (2022). The nonlinear association between grandiose and vulnerable narcissism: An individual data meta-analysis. *Journal of Personality*, 90(5), 703–726. <https://doi.org/10.1111/jopy.12692>
- Jones, D. N., & Paulhus, D. L. (2014). Introducing the short Dark Triad (SD3): A brief measure of dark personality traits. *Assessment*, 21(1), 28–41. <https://doi.org/10.1177/1073191113514105>
- Kałowski, P., Szymaniak, K., & Maciantowicz, O. (2021). Exploring the links between trait anger, self-reported sarcasm use, and narcissism. *Advances in Cognitive Psychology*, 17(4), 261–273. <https://doi.org/10.5709/acp-0335-6>
- Kandler, C., & Rauthmann, J. F. (2022). Conceptualizing and studying characteristics, units, and fits of persons and environments: A coherent synthesis. *European Journal of Personality*, 36(3), 293–318. <https://doi.org/10.1177/08902070211048728>
- Krammer, G. (2024). *When we measure differently every day: A ML-SEM simulation study on within-person nonuniform measurement bias in intensive longitudinal data*. <https://doi.org/10.31219/osf.io/fm253>
- Krizan, Z., & Herlache, A. D. (2018). The narcissism spectrum model: A synthetic view of narcissistic personality. *Personality and Social Psychology Review*, 22(1), 3–31. <https://doi.org/10.1177/1088868316685018>
- Kroencke, L., Kuper, N., Mota, S., Geukes, K., Zeigler-Hill, V., & Back, M. D. (2023). Narcissistic status pursuit in everyday social life: A within-person process approach to the behavioral and emotional dynamics of narcissism. *Journal of Personality and Social Psychology*, 125(6), 1519–1541. <https://doi.org/10.1037/pspp0000467>
- Lüdtke, O., Trautwein, U., Schnyder, I., & Niggli, A. (2007). Simultane Analysen auf Schüler- und Klassenebene [Simultaneous analyses at student and class level: A demonstration of multilevel confirmatory factor analysis of student perceptions of homework assignment]. *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 39(1), 1–11. <https://doi.org/10.1026/0049-8637.39.1.1>
- McCullough, M. E., Rachal, K. C., Sandage, S. J., Worthington, E. L., Jr., Brown, S. W., & Hight, T. L. (1998). Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. *Journal of Personality and Social Psychology*, 75(6), 1586–1603. <https://doi.org/10.1037/0022-3514.75.6.1586>
- McNeish, D. (2021). Specifying location-scale models for heterogeneous variances as multilevel SEMs. *Organizational Research Methods*, 24(3), 630–653. <https://doi.org/10.1177/1094428120913083>
- Meredith, W. (1993). Measurement invariance, factor analysis and factorial invariance. *Psychometrika*, 58(4), 525–543. <https://doi.org/10.1007/BF02294825>
- Miller, J. D., Back, M. D., Lynam, D. R., & Wright, A. G. C. (2021). Narcissism today: What we know and what we need to learn. *Current Directions in Psychological Science*, 30(6), 519–525. <https://doi.org/10.1177/09637214211044109>
- Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, 12(4), 177–196. https://doi.org/10.1207/S15327965PLI1204_1
- Mota, S., Mielke, I., Kroencke, L., Geukes, K., Nestler, S., & Back, M. D. (2023). The daily dynamics of grandiose narcissism: Distribution, stability, and trait-relations of admiration and rivalry states and state contingencies. *European Journal of Personality*, 37(2), 207–222. <https://doi.org/10.1177/08902070221081322>
- Nimon, K., Lewis, M., Kane, R., & Haynes, R. M. (2008). An R package to compute commonality coefficients in the multiple regression case: An introduction to the package and a practical example. *Behavior Research Methods*, 40(2), 457–466. <https://doi.org/10.3758/BRM.40.2.457>
- Oltmanns, J. R., & Widiger, T. A. (2018). Assessment of fluctuation between grandiose and vulnerable narcissism: Development and initial validation of the FLUX scales. *Psychological Assessment*, 30(12), 1612–1624. <https://doi.org/10.1037/pas0000616>
- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A. G. C., & Levy, K. N. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment*, 21(3), 365–379. <https://doi.org/10.1037/a0016530>
- Pincus, A. L., Cain, N. M., & Wright, A. G. C. (2014). Narcissistic grandiosity and narcissistic vulnerability in psychotherapy. *Personality Disorders: Theory, Research, and Treatment*, 5(4), 439–443. <https://doi.org/10.1037/per0000031>
- Pincus, A. L., & Lukowitsky, M. R. (2010). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology*, 6(1), 421–446. <https://doi.org/10.1146/annurev.clinpsy.121208.131215>
- Raskin, R. N., & Hall, C. S. (1979). A Narcissistic Personality Inventory. *Psychological Reports*, 45(2), Article 590. <https://doi.org/10.2466/pr0.1979.45.2.590>
- Rogoza, R., Baran, L. N., Flakus, M., Krammer, G., & Fatfouta, R. (2024). *Introducing the Narcissistic Antagonism Scale: A missing puzzle piece in the assessment of momentary narcissism*. <https://osf.io/u93eq/>
- Rogoza, R., Cieciuch, J., & Strus, W. (2021). A three-step procedure for analysis of circumplex models: An example of narcissism located within the circumplex of personality metatraits. *Personality and Individual Differences*, 169, Article 109775. <https://doi.org/10.1016/j.paid.2019.109775>
- Rogoza, R., Cieciuch, J., & Strus, W. (2022). Vulnerable isolation and enmity concept: Disentangling the blue and dark face of vulnerable narcissism. *Journal of Research in Personality*, 96, Article 104167. <https://doi.org/10.1016/j.jrp.2021.104167>
- Rogoza, R., Cieciuch, J., Strus, W., & Baran, T. (2019). Seeking a common framework for research on narcissism: An attempt to integrate the different faces of narcissism within the Circumplex of Personality Metatraits. *European Journal of Personality*, 33(4), 437–455. <https://doi.org/10.1002/per.2206>
- Rogoza, R., Crowe, M. L., Jamison, L., Cieciuch, J., & Strus, W. (2022). Support for the three-factor model of narcissism and its personality underpinnings through the lens of the network psychometrics. *Psychological Assessment*, 34(9), 880–890. <https://doi.org/10.1037/pas0001149>
- Rogoza, R., Kowalski, C. M., Saklofske, D. H., & Schermer, J. A. (2022). Systematizing dark personality traits within broader models of personality. *Personality and Individual Differences*, 186, Article 111343. <https://doi.org/10.1016/j.paid.2021.111343>
- Rogoza, R., Krammer, G., Jauk, E., Flakus, M., Baran, L., Di Sarno, M., Di Pierro, R., Zajenkowski, M., Dufner, M., & Fatfouta, R. (2024). The peaks and valleys of narcissism: The factor structure of narcissistic states and their relations to trait measures. *Psychological Assessment*, 36(2), 147–161. <https://doi.org/10.1037/pas0001295>
- Ronningstam, E. F. (2005). *Identifying and understand narcissistic personality*. Oxford University Press. <https://doi.org/10.1093/oso/9780195148732.001.0001>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press. <https://doi.org/10.1515/9781400876136>
- Rosenthal, S. A., Hooley, J. M., Montoya, R. M., van der Linden, S. L., & Steshenko, Y. (2020). The Narcissistic Grandiosity Scale: A measure to distinguish narcissistic grandiosity from high self-esteem. *Assessment*, 27(3), 487–507. <https://doi.org/10.1177/1073191119858410>
- Scharbert, J., Dein, L. M., Kroencke, L., Nestler, S., Back, M. D., & Utesch, K. (2024). Narcissists' affective well-being: Associations of grandiose narcissism with state affect level and variability. *Journal of Personality*

- and *Social Psychology*, 127(1), 153–175. <https://doi.org/10.1037/pssp0000495>
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research*, 8, 23–74.
- Schoenleber, M., Roche, M. J., Wetzel, E., Pincus, A. L., & Roberts, B. W. (2015). Development of a brief version of the Pathological Narcissism Inventory. *Psychological Assessment*, 27(4), 1520–1526. <https://doi.org/10.1037/pas0000158>
- Schönbrodt, F. D., & Perugini, M. (2013). At what sample size do correlations stabilize? *Journal of Research in Personality*, 47(5), 609–612. <https://doi.org/10.1016/j.jrp.2013.05.009>
- Sherman, E. D., Miller, J. D., Few, L. R., Campbell, W. K., Widiger, T. A., Crego, C., & Lynam, D. R. (2015). Development of a short form of the Five-Factor Narcissism Inventory: The FFNI-SF. *Psychological Assessment*, 27(3), 1110–1116. <https://doi.org/10.1037/pas0000100>
- Stapp, E. K., Zipunnikov, V., Leroux, A., Cui, L., Husky, M. M., Dey, D., & Merikangas, K. R. (2023). Specificity of affective dynamics of bipolar and major depressive disorder. *Brain and Behavior*, 13(9), Article e3134. <https://doi.org/10.1002/brb3.3134>
- Strus, W., & Ciecuch, J. (2017). Towards a synthesis of personality, temperament, motivation, emotion and mental health models within the circumplex of personality metatraits. *Journal of Research in Personality*, 66, 70–95. <https://doi.org/10.1016/j.jrp.2016.12.002>
- Strus, W., & Ciecuch, J. (2021). The circumplex of personality metatraits and the HEXACO model: Toward refinement and integration. *Journal of Personality*, 89(4), 803–818. <https://doi.org/10.1111/jopy.12616>
- Szücs, A., Edershile, E. A., Wright, A. G. C., & Dombrovski, A. Y. (2023). Rivalry and admiration-seeking in a social competition: From traits to behaviors through contextual cues. *Personality Disorders: Theory, Research, and Treatment*, 14(4), 429–440. <https://doi.org/10.1037/per0000610>
- Szücs, A., Szanto, K., Adalbert, J., Wright, A. G. C., Clark, L., & Dombrovski, A. Y. (2020). Status, rivalry and admiration-seeking in narcissism and depression: A behavioral study. *PLOS ONE*, 15(12), Article e0243588. <https://doi.org/10.1371/journal.pone.0243588>
- Thompson, E. R. (2007). Development and validation of an internationally reliable short-form of the positive and negative affect schedule (PANAS). *Journal of Cross-Cultural Psychology*, 38(2), 227–242. <https://doi.org/10.1177/0022022106297301>
- Topolewska, E., Skimina, E., Strus, W., Ciecuch, J., & Rowiński, T. (2014). Krótki kwestionariusz do pomiaru Wielkiej Piątki IPIP-BFM-20 [A short questionnaire to measure Big Five IPIP-BFM-20]. *Annals of Psychology*, 17, 367–384.
- Ulitzsch, E., Nestler, S., Lüdtke, O., & Nagy, G. (2024). A screen-time-based mixture model for identifying and monitoring careless and insufficient effort responding in ecological momentary assessment data. *Psychological Methods*. Advance online publication. <https://doi.org/10.1037/met0000636>
- Vize, C. E., Ringwald, W. R., Edershile, E. A., & Wright, A. G. C. (2022). Antagonism in daily life: An exploratory ecological momentary assessment study. *Clinical Psychological Science*, 10(1), 90–108. <https://doi.org/10.1177/21677026211013507>
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070. <https://doi.org/10.1037/0022-3514.54.6.1063>
- Weinberg, I., & Ronningstam, E. (2020). Dos and don'ts in treatments of patients with narcissistic personality disorder. *Journal of Personality Disorders*, 34(Suppl.), 122–142. <https://doi.org/10.1521/pedi.2020.34.supp.122>
- Welsh, C. A., Ferguson, L. M., McKeown, L., Gerlach, T. M., Dumas, M., Truhan, T. E., & Papageorgiou, K. A. (2024). Assessing Dark Tetrad traits: A COSMIN systematic review of measurement instruments available. *Personality and Individual Differences*, 217, Article 112431. <https://doi.org/10.1016/j.paid.2023.112431>
- Wetzel, E., Lang, F. J., Back, M. D., Vecchione, M., Rogoza, R., & Roberts, B. W. (2021). Measurement invariance of three narcissism questionnaires across the United States, the United Kingdom, and Germany. *Assessment*, 28, 29–43. <https://doi.org/10.1177/1073191120907967>
- Wright, A. G. C., & Edershile, E. A. (2018). Issues resolved and unresolved in pathological narcissism. *Current Opinion in Psychology*, 21, 74–79. <https://doi.org/10.1016/j.copsyc.2017.10.001>
- Wright, A. G. C., & Simms, L. J. (2016). Stability and fluctuation of personality disorder features in daily life. *Journal of Abnormal Psychology*, 125(5), 641–656. <https://doi.org/10.1037/abn0000169>
- Zimmermann, J., & Wright, A. G. C. (2017). Beyond description in interpersonal construct validation: Methodological advances in the circumplex structural summary approach. *Assessment*, 24(1), 3–23. <https://doi.org/10.1177/1073191115621795>

Received April 23, 2024

Revision received July 24, 2024

Accepted July 25, 2024 ■