



## Three facets of narcissism in their relations to the experienced emotions and their variability

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### ABSTRACT

Narcissism is defined as a multidimensional construct composed of three facets: agentic, antagonistic, and neurotic. We assessed the relations between these facets of trait narcissism to trait and state emotions. We conducted a cross-sectional ( $N = 356$ ) and seven-day long daily-diary study ( $N = 199$ ;  $k = 1272$  observations). As registered, we provided evidence that trait and state antagonistic emotions are positively associated with all facets of narcissism, while agentic and neurotic emotions are only related to their respective narcissistic counterparts. Agentic narcissism predicted faster recovery from experiencing neurotic emotions, while neurotic narcissism predicted increases in the time needed for returning to equilibrium. These results highlight that emotions may play an important role in explaining the fluctuations in narcissism.

Narcissism is considered a personality trait present in the general population (Wetzel, Leckelt, Gerlach, & Back, 2016). Broadly defined, it is often interpreted as an entitled sense of self-importance (Krizan & Herlache, 2018). However, despite this brief definition, narcissism is a multifaceted and hierarchically organized construct, comprising two phenotypical manifestations and three specific facets (Krizan & Herlache, 2018; Miller et al., 2021; Rogoza et al., 2019). The narcissistic phenotypes refer to the distinction between grandiose and vulnerable narcissism (Wink, 1991). These represent qualitatively different forms of narcissism, often contrasting one another. For instance, while grandiose narcissism is primarily related to self-promoting and self-enhancing behaviors, vulnerable narcissism is characterized by hypersensitivity and social withdrawal (Back et al., 2013; Rogoza et al., 2022). Despite these differences, both share a common core of entitlement, exploitativeness, and an antagonistic orientation towards others (Miller & Campbell, 2008). Theoretical claims supported by empirical research have provided robust evidence that a three-factor structure, comprising the facets of agentic (distinct for grandiose narcissism), neurotic (distinct for vulnerable narcissism), and antagonistic (common for both), best represents the structure of narcissistic personality (Crowe, Lynam, Campbell, & Miller, 2019; Krizan & Herlache, 2018; Miller, Back, Lynam, & Wright, 2021; Rogoza, Crowe, Jamison, Ciecuch, & Strus, 2022; Wright & Edershile, 2018). Each of these facets is

underpinned by distinct emotional experiences, such as anger, pride, or shame (Di Sarno et al., 2020; Kałowski et al., 2021; Rogoza et al., 2018). In the current study, we explore how these three facets of narcissism relate to the intensity of emotions experienced, as well as their variability and inertia over time.

### 1. The three-factor model of narcissism

Although one might question why grandiose and vulnerable should be both labelled narcissism if they are frequently found to be unrelated one to another in empirical studies (Jauk et al., 2022; Kałowski et al., 2021), the differentiation of narcissism facets is useful to solve this issue. That is, each narcissism facet has its own personality underpinnings and distinct correlates (Rogoza et al., 2019). For instance, agentic narcissism (representing charmingness, social boldness, and self-enhancement) is related to high extraversion and perceiving oneself as better (e.g., smarter) than others; antagonistic narcissism (representing hostile attribution of others, entitlement, and self-importance) is related to low agreeableness and is related to variability in self-perceptions (e.g., in self-esteem, self-assessed intelligence), and finally, neurotic narcissism (representing hypersensitivity, social withdrawal, and contingency of self-worth) is related to high neuroticism and to negative self-perceptions (e.g., low well-being, self-esteem; (Blasco-Belled, Tejada-

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Gallardo, Alsinet, & Rogoza, 2024; Geukes et al., 2017; Miller et al., 2021; Rogoza et al., 2024). Despite these differences, agentic and neurotic narcissism are both positively related to antagonistic narcissism (Crowe et al., 2019; Krizan & Herlache, 2018; Rogoza et al., 2019). In fact, antagonistic narcissism is considered as the core and most central feature of narcissistic personality, connecting agentic and neurotic narcissism into a single structure (Rogoza et al., 2022). This connecting character is also visible in explaining the processes regarding the fluctuations in narcissism in which the antagonistic reactions are expected to determine the changes in narcissistic states (Back, 2018; Rogoza et al., 2024).

## 2. How does it feel to be a Narcissist?

In an attempt to answer our previous question, Czarna and colleagues (Czarna et al., 2024; Czarna, Zajenkowski, & Dufner, 2018) provided argumentation that the two phenotypical manifestations of narcissism differ in the valence of experienced emotions – that is, grandiose narcissism was linked to experiencing positive emotions and seeing the world in pink-colored glasses, whereas vulnerable narcissism was all about negative emotionality and ruminatively experiencing these (Zajenkowski et al., 2021). Indeed, a substantial body of evidence demonstrated the links between grandiose and vulnerable narcissism with trait and state positive and negative affectivity, respectively (Blasco-Belled, Tejada-Gallardo, Alsinet, & Rogoza, 2024; Edershile & Wright, 2021; Fatfouta & Rogoza, 2024; Scharbert et al., 2024). The differentiation of narcissism facets provided further insight into the nuanced relations to emotions. Specifically, agentic narcissism has been associated with positively valenced emotions, such as pride and benign envy, while antagonistic and neurotic narcissism have both been linked to negatively valenced emotions, which differ in their expression. Specifically, emotions related to antagonistic narcissism, such as anger, hubristic pride, and malicious envy, tend to be more outward-directed, whereas those associated with neurotic narcissism, such as guilt, anxiety, and shame, are more internalizing in nature (Di Sarno et al., 2020; Kaufman, Weiss, Miller, & Campbell, 2018; Lange & Crusius, 2016; Rogoza et al., 2018). In factor-analytic studies, these emotions could be grouped as secondary mood-type factors (Boyle, 1987), and they could be described as agentic (i.e., positive, self-directed feelings such as pride and enthusiasm), antagonistic (i.e., outward-focused negative feelings characterized by hostility, anger, and opposition toward others), and neurotic (i.e., inward-focused negative feelings marked by anxiety, shame, and sadness) emotions (Kroencke et al., 2023).

Kroencke and colleagues (2023) described the relations between trait narcissism to state agentic, antagonistic, and neurotic emotions in an intensive longitudinal study. They not only found that each narcissism facet was related to respective emotional states (e.g., agentic narcissism was positively related to agentic emotions at  $r = 0.33$ ), but their findings also emphasized the connecting character of antagonism, as all facets of trait narcissism were positively related to state antagonistic emotions. While pioneering in nature, this study presented a few limitations. First, the emotional states were assessed using only two or three indices per group (e.g., shame and insecure for neurotic emotions). While the selection of these indices seems valid (e.g., Di Sarno et al., 2020), they might not capture the richness of the potential experienced emotions. For instance, Izard (1992; 2013) differentiated twelve emotions: interest, joy, surprise, sadness, anger, disgust, contempt, hostility, fear, shame, shyness, and guilt, which also could be meaningfully grouped into factors representing agentic, antagonistic, and neurotic emotions (Boyle, 1987).

Second, although authors write that “the classical distinction between grandiose and vulnerable narcissism conflates either the agentic and antagonistic aspects of narcissism (i.e., grandiose narcissism) or its antagonistic and neurotic aspects (i.e., vulnerable narcissism) and will therefore not be adopted in the present study” (Kroencke et al., 2023), this claim is inaccurate in regard to the empirical part of the study.

Specifically, to assess narcissism facets, authors either use the combination of the short version of the Narcissistic Admiration and Rivalry Questionnaire (Back et al., 2013; Leckelt et al., 2018) and the Hyper-sensitive Narcissism Inventory (Hendin & Cheek, 1997) or create a proxy measure of vulnerable narcissism through mixing facets of anxiety, depression, and compassion (reversely) from the Big Five Inventory-2 (Soto & John, 2017). Such an approach is limited by the fact that the HSNS comprises items that measure both antagonistic and neurotic narcissism (Schneider et al., 2023). Furthermore, the foundational trait of neurotic narcissism is neuroticism, while low agreeableness corresponds to antagonistic narcissism (Miller, Back, Lynam, & Wright, 2021; Rogoza, Ciecuch, & Strus, 2022). Therefore, mixing both facets or creating a proxy measure of vulnerable narcissism might lead to inaccurate estimates in regard to neurotic narcissism per se (Kroencke et al., 2023). Finally, the study was mostly focused on analyzing whether perceived status cues are related to emotional states and did not analyze if trait narcissism is related to variability and inertia of these emotional states, which might provide valuable findings to understand the fluctuations in narcissism (Edershile & Wright, 2021; Geukes et al., 2017; Rogoza et al., 2024). Therefore, the current study builds upon these findings and provides a more nuanced perspective.

## 3. Current study

The current manuscript tests hypotheses registered at Doi: [osf.io/agtfn/](https://doi.org/10.31233/osf.io/agtfn/). Specifically, we were interested in examining the relationship between narcissism and emotions, and we expected that: neurotic narcissism will be positively related to neurotic and antagonistic emotions (H1), antagonistic narcissism will be positively related to antagonistic emotions (H2), and agentic narcissism will be positively related to agentic and antagonistic emotions (H3). Specifically, we expected that because antagonistic narcissism is thought to play a central role in the fluctuations in narcissism (Back, 2018; Rogoza et al., 2024), antagonistically oriented emotions should be visible in both adjacent facets as well. Of importance, our hypotheses were registered prior to the publication of Kroencke et al. (2023), whose findings provided robust support to them. Although we initially planned to report a single correlational study, we also gathered reports on daily emotions from an independent sample. Thus, in addition to testing the same hypotheses in relation to daily emotions, we also explored the relationships of trait narcissism with the variability and inertia of emotional states. The data and code necessary for the reproduction of our results are available at: Doi: [osf.io/a4c5u/](https://doi.org/10.31233/osf.io/a4c5u/).

## 4. Method

### 4.1. Participants and procedure

As stated in the registration, in Study 1 we planned to recruit at least 300 participants to detect small effects (i.e.,  $r < 0.25$ , with  $\alpha = 0.01$  and power = 0.90). Given that our exploration in Study 2 basically regarded between-person relations, on the basis of the results from Study 1, we planned to recruit at least 167 participants to detect an effect size of  $f^2 = 0.12$  (with  $\alpha = 0.01$  and power = 0.90) in a model with three predictors. Our final sample comprised  $N = 363$  participants in Study 1 and  $N = 199$  participants in Study 2 (who provided  $k = 1274$  observations), thus our samples might be seen as adequately powered to address our hypotheses. Study 2 was part of a larger data collection effort, and the current study reports novel analyses.

In Study 1, we involved adult participants from Poland (aged between 18 and 71;  $M = 28.58$ ;  $SD = 9.62$ ). Approximately half of the sample identified themselves as women (54.3 %) and men (45.7 %, with no one identifying as non-binary). In Study 2, we also involved adults from Poland (aged between 18 and 55;  $M = 25.21$ ;  $SD = 6.24$ ). The sample was comprised mostly of females (with 75.4 % of the sample identifying themselves as women, 23.1 % as men, and 1.5 % as non-

binary). The sample was mostly recruited among students and people from the general population recruited by students (in exchange for course credit). After completing baseline measures, participants were invited to the broader longitudinal part of the study (Rogoza et al., 2025). For seven consecutive days, they were asked each evening about the emotions experienced during that day. Participants were compensated for taking part in the study with a voucher worth 50PLN (approximately 12€). In both studies, participants were informed about the nature of the study and gave their consent at the beginning of the study.

#### 4.2. Measures

**Narcissism.** To assess narcissistic traits, we used the same three adjective-based scales in both studies: the Narcissistic Vulnerability scale (Crowe et al., 2018; sample items: ignored, resentful, misunderstood, and underappreciated), the Narcissistic Antagonism Scale (Rogoza et al., 2025; sample items: abusive, nasty, exploitative, and depreciating), and the Narcissistic Grandiosity Scale (Crowe et al., 2016; Rosenthal et al., 2019; sample items: brilliant, glorious, powerful, and prestigious). Of importance, although these adjective-based measures of narcissism provide a brief and efficient way to measure the construct, they are all internally consistent, structurally valid, and highly congruent with commonly used measures of trait narcissism (e.g., the Five Factor Narcissism Inventory; Sherman et al., 2015; for a review of psychometric properties, see Rogoza et al., 2025). In total, participants were presented with 40 items (11, 16, and 13, respectively for each measure) in which they rated their similarity using a seven-point Likert-type scale ranging from 1 (*not at all*) to 7 (*completely*). All the scales were highly internally consistent in both studies ( $\alpha_{\text{agentic\_Study1}} = 0.94$ ;  $\alpha_{\text{agentic\_Study2}} = 0.90$ ;  $\alpha_{\text{antagonistic\_Study1}} = 0.93$ ;  $\alpha_{\text{antagonistic\_Study2}} = 0.91$ ;  $\alpha_{\text{neurotic\_Study1}} = 0.80$ ;  $\alpha_{\text{neurotic\_Study2}} = 0.82$ ).

**Emotions.** To assess trait emotions, we used the Differential Emotions Scale (IV; Izard, 1992, 2013). The DES-IV comprises thirty-six statements to which respondents rate how frequently they feel certain emotions in everyday life using a five-point Likert-type scale ranging from 1 (*very rarely*) to 5 (*very often*). This scale distinguishes twelve emotions, which were grouped into three factors of agentic emotions (interest, joy, and surprise), antagonistic emotions (anger, disgust, and contempt), and neurotic emotions (sadness, fear, self-hostility, shame, shyness, and guilt), which were all internally consistent ( $\alpha_{\text{agentic}} = 0.76$ ;  $\alpha_{\text{antagonistic}} = 0.82$ ;  $\alpha_{\text{neurotic}} = 0.95$ ). To assess daily state emotions, during the evening, we asked participants to report on the emotions they experienced throughout the day. Participants were presented with the list of twelve emotions as described above, and they reported on the intensity of these emotions using a visual analogue scale ranging from 0 (*not at all*) to 100 (*all the time*).

#### 4.3. Statistical analyses

Given the cross-sectional character of the data reported in Study 1, we used standard statistical procedure to test the hypotheses as outlined in the registration. For assessing zero-order relations, we reported Pearson's  $r$  coefficient, and for reporting beta-weights, we tested three linear regression models. In these models, we introduced narcissism as predictor variables to assess their relations to emotions after accounting for their shared variance. The data reported in Study 2 have a two-level structure in which time is nested within participants, and the analytical plan was not registered; however, it follows the same logic as the one reported in Study 1. To analyze this two-level structure, we used Dynamic Structural Equation Modeling (DSEM; Asparouhov et al., 2018) with Bayesian estimation in Mplus v. 8.3 (Muthén & Muthén, 2017). DSEM combines features of time-series modeling (e.g., allowing for  $N = 1$  lagged associations), multilevel modeling (e.g., nesting these lagged associations within individuals), and structural equation modeling (e.g., modelling these effects as between-person variables; Hamaker et al.,

2021). DSEM was selected because of its robustness in handling missing observations and unequal intervals, which are largely expected in intensive longitudinal studies. Specifically, missing observations are iteratively estimated using the Markov Chain Monte Carlo algorithm, which samples them from their conditional posterior distribution. As a result, no observations are lost during analysis (Asparouhov et al., 2018; Hamaker et al., 2018). The DSEM models were decomposed into two components to reflect the nested data structure: the within- and between-person models. In the within-person model, we estimated random individual means ( $\mu$ ), representing each participant's mean-level on a given emotional dimension across time. We also estimated autoregressive regression coefficients ( $\phi$ ), which capture inertia – how long it takes a person to return to their equilibrium after experiencing a change from the personal mean. Additionally, we modeled the log of the variance of the innovations ( $\log(\pi)$ ), which reflects unmeasured influences on the emotional dynamics, such as individual variability (Hamaker, Asparouhov, Brose, Schmiedek, & Muthén, 2018; Stapp et al., 2023). Of note, variances are estimated using their log instead of residual to ensure they remain positive across individuals (Hamaker et al., 2021). After being estimated at the within-person level, these within-person parameters become latent variables in the between-person model. In essence, the analysis in the between-person level assesses the relations between the group-means of individual means; (McNeish & Hamaker, 2020). In the present study, we regressed inertia and variability of agentic, antagonistic, and neurotic emotions on trait narcissism facets. Importantly, when assessing the relationship between trait and variability in states, it is necessary to control for personal mean as they are usually correlated (Baird et al., 2006). Thus, to estimate the relationship between narcissism and inertia and variability of daily emotions, we controlled for this covariance. All models were estimated using 5,000 iterations with a thinning of 10, meaning every 10th iteration was saved, to increase the robustness of our results.

## 5. Results

### 5.1. Relations between trait narcissism and trait emotions

Table 1 shows the descriptive statistics, zero-order relations, and standardized regression coefficients from the three linear regression models, with the facets of narcissism entered as independent variables and emotions as dependent variables. The results from these models gave support to the registered hypotheses. Specifically, neurotic narcissism was positively related to antagonistic and neurotic emotions (H1), antagonistic narcissism was related to antagonistic emotions (H2), while agentic narcissism was related to agentic and antagonistic emotions (H3). Although not registered, we also used Z-tests to compare whether the reported correlation coefficients differed not only from zero but also from each other. While the absolute difference was small (i.e., 0.09), neurotic narcissism was more strongly related to neurotic as compared to antagonistic emotions ( $Z = 2.90$ ;  $p = 0.002$ ; as well as to agentic emotions,  $Z = 9.48$ ;  $p < 0.001$ ). Antagonistic narcissism, in turn, was most strongly related to antagonistic narcissism, as compared to both agentic or neurotic emotions ( $Z$ 's  $> 6.95$ ;  $p$ 's  $< 0.001$ ). Finally, we found that agentic narcissism was equally associated with agentic and antagonistic emotions ( $Z = 0.67$ ;  $p = 0.251$ ), but both relations were significantly stronger than that with neurotic emotions ( $Z$ 's  $> 4.87$ ;  $p$ 's  $< 0.001$ ). Of interest, all these findings remained significant after taking into account the shared variance between narcissism facets. We also noticed a small relation between antagonistic narcissism with agentic and neurotic emotions, yet these effects became non-significant after accounting for the shared variance.

### 5.2. Relations between trait narcissism and daily experienced emotions

On average, participants reported the highest levels of daily experienced agentic emotions ( $\mu = 51.30$ ;  $SD = 23.29$ ), while the level of the

**Table 1**  
Descriptive Statistics and the Relations Between Trait Narcissism and Trait Emotions.

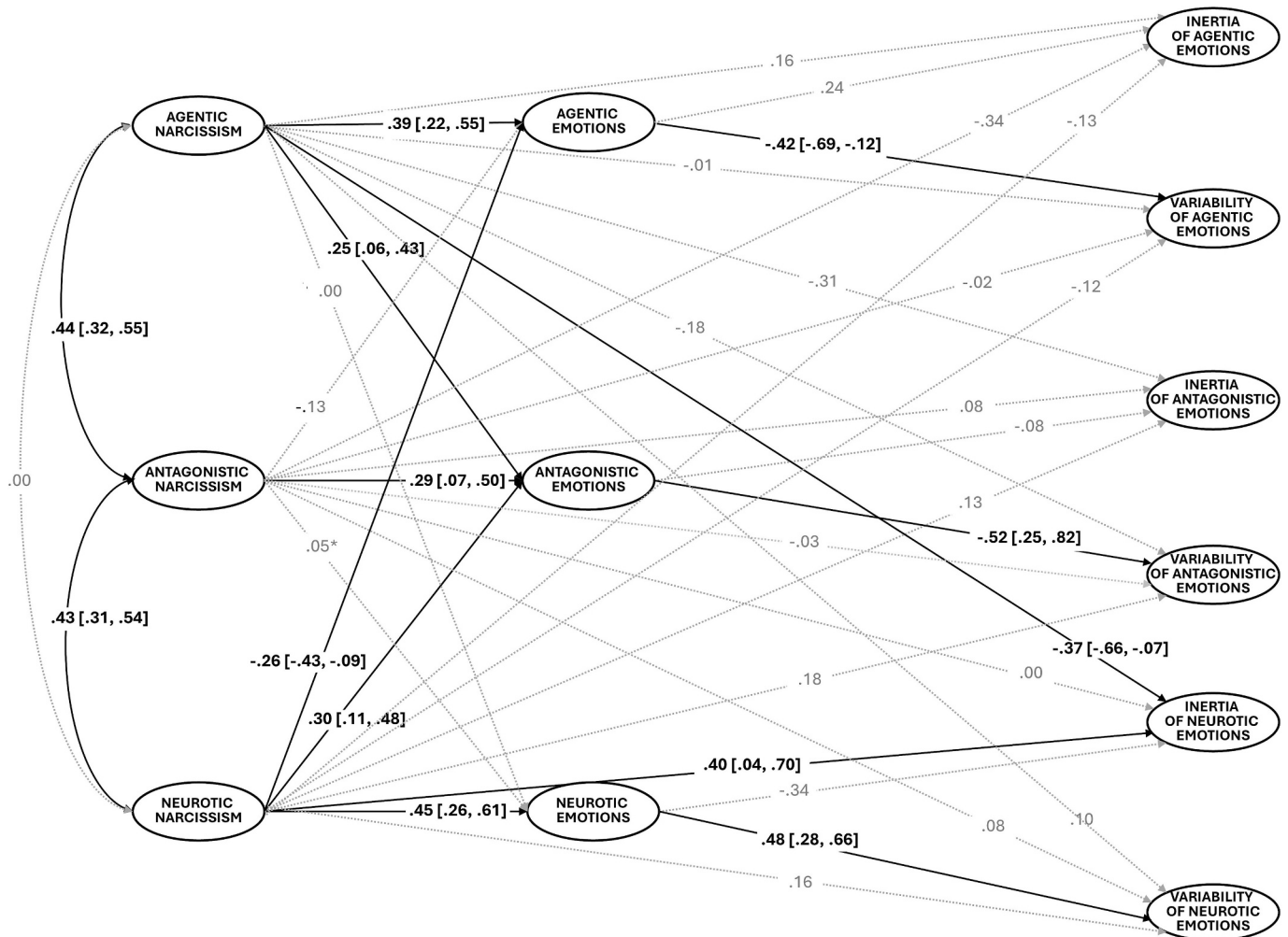
	<i>M</i>	<i>SD</i>	1		2		3		4		5	
			<i>r</i>	$\beta$	<i>r</i>	$\beta$	<i>r</i>	$\beta$	<i>r</i>	$\beta$	<i>r</i>	$\beta$
Narcissism												
1. Agentic	2.67	1.24										
2. Antagonistic	2.11	0.99	0.52									
3. Neurotic	3.36	0.97	0.21		0.51							
Emotions												
4. Agentic	3.14	0.66	0.32	0.33	0.16	-0.01	0.08	0.01				
5. Antagonistic	2.28	0.76	0.36	0.12	0.57	.32	0.57	0.38	0.24			
6. Neurotic	2.42	0.92	0.02	-0.15	0.32	0.07	0.66	0.66	0.05	0.69		

Note. Coefficients  $\geq .12 \leq 15$  were significant at  $p = 0.05$ ; coefficients  $\geq .15 \leq 20$  were significant at  $p = 0.01$ ; coefficients  $\geq 0.21$  were significant at  $p < 0.001$ .

daily experienced neurotic ( $\mu = 26.73$ ;  $SD = 22.99$ ) and antagonistic emotions ( $\mu = 21.45$ ;  $SD = 23.83$ ) was similar. All estimates of inertia (agentic emotions:  $\phi = 0.22$ [95 %CI = 0.13, 0.32];  $p < 0.001$ ; antagonistic emotions:  $\phi = 0.17$ [95 %CI = 0.08, 0.26];  $p < 0.001$ ; and neurotic emotions:  $\phi = 0.29$ [95 %CI = 0.22, 0.38];  $p < 0.001$ ) and variability (agentic emotions:  $\log(\pi) = 0.89$ [95 %CI = 0.81, 0.94];  $p < 0.001$ ; antagonistic emotions:  $\log(\pi) = 0.87$ [95 %CI = 0.81, 0.93];  $p < 0.001$ ; and neurotic emotions:  $\log(\pi) = 0.80$ [95 %CI = 0.74, 0.85];  $p < 0.001$ ) were significant. These results suggest that daily emotions experienced on one day predicted the re-occurrence of the same emotion (i.e., inertia) as well as participants varied between themselves in their experiences of daily emotions. The results presenting the relations between

trait narcissism and average daily emotions, as well as their inertia and variability (controlled by person mean), are presented in Fig. 1.

As registered, we have replicated the pattern of relations observed at the trait level. Specifically, while all narcissism facets were positively associated with antagonistic emotions, agentic and neurotic narcissism were positively related to their emotional counterparts – providing robust support for all our hypotheses. In addition to that, we also observed that neurotic narcissism was negatively related to agentic emotions. Afterwards, we explored the relations between narcissism to variability and inertia of daily emotions. Regarding the links to variability in daily emotions, the observed relation was attributed to the individual person’s mean. That is, any of the narcissism facets uniquely



**Fig. 1.** Figure 1. Relations Between Narcissism to Daily Emotions and their Variability and Inertia. Note. Only paths which were significant at least at  $p < .05$  (two-tailed) and did not included 0 within the 95% confidence intervals are presented in bold.

predicted variability in daily emotions after taking into account individual person mean, which in their relations to variability were associated negatively (in regard to agentic and neurotic emotions) and positively (in regard to antagonistic emotions). As a cautionary note, agentic narcissism was negatively related to variability in agentic emotions ( $\beta = -0.21$ [95 %CI =  $-0.43, 0.01$ ];  $p = 0.032$ ) without controlling for the person mean, while neurotic narcissism was positively related to variability in antagonistic ( $\beta = 0.38$ [95 %CI =  $0.21, 0.54$ ];  $p < 0.001$ ) and neurotic emotions ( $\beta = 0.39$ [95 %CI =  $0.24, 0.53$ ];  $p < 0.001$ ). With respect to the inertia of emotions, no significant effects for agentic nor antagonistic emotions emerged. However, we found two effects with respect to the inertia of neurotic emotions; that is, agentic narcissism predicted this inertia negatively, while neurotic narcissism positively.

## 6. Discussion

### 6.1. Antagonistic emotions Underpins narcissism

The goal of the current study was to investigate the relationship between narcissism and experienced emotions. Contrary to the findings of Kroencke et al. (2023), our results provided full support to our expectations. The findings indicated that all narcissism facets were related to antagonistically-oriented emotions, agentic narcissism was specifically related to agentially-oriented emotions, and neurotic narcissism were related to neurotically-oriented emotions. This finding has been supported in regard to trait emotions as well as to daily emotions. These results endorse the notion that grandiose and vulnerable narcissism differ in their hedonic tone of experienced emotions in which grandiose narcissism focuses on positivity, whereas vulnerable narcissism is all about negative emotionality (Czarna et al., 2018; Fatfouta & Rogoza, 2024; Zajenkowski et al., 2021). Despite such differences, our results simultaneously emphasize existing commonalities that are in line with Kroencke et al. (2023) – that is, the antagonistic feelings of anger, disgust, and contempt broadly underpin narcissism. Answering the question raised by Czarna et al. (2018) about how it feels to be a narcissist, we highlight that regardless of how narcissism phenotypically manifests itself, being a narcissist is expressed by feeling that others are inferior to oneself.

### 6.2. Narcissism and variability and inertia of emotional states

Narcissism is frequently found to be uniquely related to the estimates of the variability of self-esteem or narcissistic states (Geukes et al., 2017; Rogoza et al., 2024). In the current study, we have analyzed how different facets of narcissism are related to the estimates of the dispersion of emotional states over time (i.e., their variability and inertia), shedding new light on the relations between emotional functioning and narcissism and extending the findings reported by Kroencke et al. (2023). While none of the narcissism facets accounted for the variability of daily experienced emotions, agentic and neurotic narcissism were predictors of the inertia of neurotic emotions. Specifically, while agentic narcissism predicted lesser inertia, neurotic narcissism predicted higher inertia of neurotic emotions over time. Inertia reflects the time needed to return to personal equilibrium – the higher it is, the longer it takes (Hamaker et al., 2018). Thus, inertia might be considered as a predisposition for being stuck in a specific state. A person with elevated levels of agentic narcissism may have the propensity to recover more quickly after experiencing a change in neurotic emotions – in other words, they may appear as thick-skinned as negative emotions don't bother them for a long period of time. In turn, a person with elevated levels of neurotic narcissism may show a tendency for self-perpetuating rumination of these negative emotions, which may exhibit their emotional hypersensitivity (Zajenkowski et al., 2021). This finding is also congruent with identified cognitive mechanisms typical for vulnerable narcissism such as increased propensity to I-talk, which reflects the increased tendency

for rumination, which can be expressed in greater inertia of negatively-valenced emotions (Holtzmann et al., 2024).

### 6.3. Limitations and future directions

Within the current study, we examined the relationship between narcissism and experienced daily emotions. While we shed some light on this relationship, our work was also limited by several factors. First, although we applied a longitudinal design, we gathered data only over a limited period (i.e., seven days), which limits the possibility of drawing conclusions about estimates of variability. Extending the number of measurements would provide a more robust insight into understanding these relationships. Furthermore, the daily diary design adopted within the current study could also be modified to include a momentary assessment of both – narcissism and emotions. While it is possible to capture their variability over the course of the days, adopting a more frequent schedule might shed new light on this relationship. For instance, both narcissism and emotions are related to hormones such as cortisol or testosterone (Edelstein et al., 2010; Joseph et al., 2021; Zajenkowski et al., 2023; Zilioli et al., 2014). Thus, combining intensive longitudinal studies with biological assessments could provide a more detailed understanding of the underlying processes. Implementation of a momentary approach would also help reduce the bias associated with the retrospective nature of our study, which is typical for daily diary designs. For instance, participants asked to recall specific emotions may only report those that were experienced most intensively or most recently. By studying emotions and narcissism using a momentary design, one can better capture these dynamic and time-limited reactions. Ideally, future studies could consider using adaptive signal-contingent longitudinal burst designs (Kaurin et al., 2024) to assess changes in narcissism immediately after experiencing specific emotions.

Another limitation of the current work is that we did not assess time-dependent (i.e., cross-lagged) associations between narcissism and emotions, which go beyond mere co-variations and provide insights into causality (Costantini & Perugini, 2018; Di Sarno et al., 2023). As a result, we are unable to determine whether higher levels of specific emotions are driven by the type of experiences individuals encounter. For example, individuals with high levels of neurotic narcissism may be more likely to have negative experiences due to their particular traits, and/or experiencing negative emotional states could, in turn, further increase neurotic narcissism. Future studies examining the relations between narcissism and experienced emotions could explore these potential bidirectional effects. When planning such studies, it is also important to control for potential confounding variables. For instance, future studies could assess the moderating role of alexithymia and/or emotional intelligence to examine whether narcissism and experienced emotions remain related in individuals with higher levels of these traits. Another interesting avenue for future research may stem from the fact that we focused on only a specific set of emotions (Izard, 1992; 2013), which does not exhaustively explore the full range of emotional reactions experienced by humans. For instance, future research might consider studying emotions that are shaped by social definitions, such as pride, nostalgia, or remorse. Finally, the sample in the current study was predominantly female and composed of young adults. This should be considered a limitation when attempting to generalize the findings to the broader population.

## 7. Conclusion

The current study aimed to empirically illustrate how it feels to be a narcissist. All in all, the results suggest that the antagonistic emotions of anger, disgust, and contempt are common for all narcissism facets, while hedonic tone exerts a distinctive role between agentic and neurotic emotions, which are either concentrated on more pleasant emotions (e.g., joy) or intensive experiencing negative emotions (e.g., shame). While originally tested in purely self-report design, these findings have been

successfully replicated in a longitudinal study. Our results also emphasize qualitative differences in experiencing negative emotions between agentic and neurotic narcissism – with the former being thick-skinned and the latter being prone to intensive rumination of these. Summing up, our findings provide a comprehensive empirical illustration of the emotional experiences underlying narcissism.

## 8. Preregistraion statement

The current manuscript tests hypotheses registered with analysis plan a priori to the data collection efforts at Doi: [osf.io/agtfn/](https://osf.io/agtfn/)

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## Ethics approval statement

The study has been approved in whole by the Ethics Committee of the University of Economics and Human Sciences in Warsaw.

## CRedit authorship contribution statement

**Radosław Rogoza:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Conceptualization. **Marta Rogoza:** Writing – review & editing, Methodology, Conceptualization. **Ana Blasco-Belled:** Writing – review & editing, Validation. **Jarosław Jastrzębski:** Writing – review & editing, Validation.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability

Data will be made available on request.

Data necessary for reproduction of reported results are available at: Doi: [osf.io/a4c5u](https://osf.io/a4c5u).

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