# The Expression of Narcissistic Traits in Daily Life: An Ecological Momentary Assessment Study

by

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Bachelor of Philosophy, University of Pittsburgh, 2024

Submitted to the Graduate Faculty of the

Dietrich School of Arts and Sciences in partial fulfillment

of the requirements for the degree of

Bachelor of Philosophy

University of Pittsburgh

2024

## UNIVERSITY OF PITTSBURGH

## DIETRICH SCHOOL OF ARTS AND SCIENCES

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It was defended on

April 15, 2024

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#### The Expression of Narcissistic Traits in Daily Life: An Ecological Momentary Assessment Study

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It is widely agreed that narcissistic individuals experience significant interpersonal dysfunction, but there are gaps in the literature on how different interpersonal contexts affect the expression of narcissistic traits and how these differences give rise to social impairment. This study aims to understand the expression of narcissistic traits in relation to interpersonal contexts in daily life. The data used for this study were drawn from two independent samples of undergraduate students (S1) and community members (S2). Both samples completed a series of baseline assessments and subsequent ambulatory assessment protocols. Results from within-person correlations indicated mixed evidence that specific social partners have an influence on momentary narcissism. Results from multilevel regression analyses showed that there were no significant relations between variety in arguments or emotional support and daily levels of narcissism. Results from baseline correlations indicated a negative correlation between variety in emotional support and baseline grandiosity, and a positive correlation between variety in arguments and baseline vulnerability between both samples. Future research focused on narcissism in daily life should aim to include more daily contextual features relevant to the interaction. Further, these studies should aim to examine how the interplay between processes simultaneously impacts the expression of narcissistic states to gain a better understanding of the mechanisms underlying narcissistic dysfunction.

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#### **1.0 Introduction**

Narcissism has received significant research attention in both general and clinical personality research, and there has been notable progress in the field's understanding of narcissism (Miller et al., 2021). There is wide agreement that narcissistic individuals are uniquely attuned to threats to their ego, and in turn, will engage in strategies to inflate their sense of self (Back, 2018). Furthermore, interpersonal functioning is a key problem domain for narcissistic individuals. Specifically, narcissistic individuals tend to regulate their self-esteem through domination, intimidation, devaluation, and denial of any form of reliance on another person (Campbell & Baumeister, 2006), which can lead to significant impairments in their relationships. While narcissism can cause significant social impairment, how narcissistic traits give rise to social impairment is not clearly understood. Additionally, there are gaps in the literature on how different interpersonal contexts affect the expression of narcissistic traits. For example, does the type of interaction partner (e.g., friend versus boss) elicit specific behaviors in narcissistic individuals? Additionally, does the context of interpersonal interactions (e.g., getting into an argument or receiving emotional support) elicit specific expressions of narcissism, such as being more dominant? This study aims to understand the expression of narcissistic traits in relation to these interpersonal contexts in daily life to further understand the mechanisms behind social impairment among narcissistic individuals.

#### **1.1 Conceptualizing Narcissism**

Several different conceptualizations of narcissism have been the focus of empirical investigations. The clinical conceptualization is represented by narcissistic personality disorder (NPD) within the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013). NPD is classified by a pattern of grandiosity, need for admiration, preoccupation with success, arrogance, and a lack of empathy.

However, narcissism, much like other personality disorders, is much more complex than a single categorical definition. Critics of the DSM's categorical approach identify problems with comorbidity among disorders, imprecise thresholds, and the categorical nature of diagnosis given the extensive empirical literature showing that mental disorders are more continuous than categorical (Krueger et al., 2014). Consistent with these criticisms, NPD is largely heterogenous, meaning that not every individual meeting the diagnostic criteria for NPD endorses the same symptoms. NPD has nine criteria in the DSM, and an individual needs to meet five of these criteria to be diagnosed. In practice, two individuals who endorse completely different criteria for NPD will be diagnosed and treated for the same disorder. Past research has further emphasized heterogeneity in narcissism by identifying two narcissism variants: grandiose narcissism and vulnerable narcissism (Cain, 2008). Grandiose narcissism, which largely reflects symptoms of NPD, is characterized by an inflated sense of self, lack of empathy, and entitlement. Furthermore, individuals who express grandiose narcissism tend to over-exaggerate their abilities and endorse self-promotion and enhancement (Weiss & Miller, 2018). Vulnerable narcissism is characterized by a desire to avoid embarrassment, elevated self-doubt, and social withdrawal. In comparison to grandiose narcissism, vulnerable narcissism is more strongly associated with negative affectivity and other forms of internalizing psychopathology (Miller et al., 2017).

In order to parse the complexity of narcissism, research has sought to conceptualize narcissism by using an empirically driven conceptualization. One such approach, the trifurcated model of narcissism, emerged to better characterize the similarities and differences between the grandiose and vulnerable narcissism variants. The trifurcated model posits that narcissism is multidimensional, and comprised of three dimensions: agentic extraversion, narcissistic neuroticism, and interpersonal antagonism (Back et al., 2013; Miller et al., 2017). Agentic extraversion, unique to grandiose narcissism, describes attention seeking behavior and assertiveness and has generally been shown to be positively related to adaptive outcomes (e.g., peer popularity and leadership emergence; Back et al., 2013) and not strongly linked to interpersonal problems (Miller et al., 2021). Narcissistic neuroticism, the unique component of vulnerable narcissism, is characterized by an unstable self-esteem, emotional dysregulation, and experiences of guilt and shame, and shows the strongest relations with internalizing forms of psychopathology (Miller et al., 2018). The third dimension, interpersonal antagonism, ties the two dimensions together—it is the core trait shared by both variants of narcissism. Interpersonal antagonism is characterized by entitlement, arrogance, callousness, and deceitfulness has been shown to relate to a variety of negative interpersonal outcomes, including social conflict and declining peer approval (Hartel et al., 2023; Leckelt et al., 2015). While conceptual advances in narcissism research have helped clarify the structure of narcissism, it is important to merge these advances with dynamic assessment approaches, which can lend insight into how narcissistic traits vary within people and across situations. In turn, researchers have more recently been applying dynamic assessment approaches to better understand the mechanisms involved in the presentation of narcissistic traits.

#### **1.2 Dynamic Approaches to Studying Narcissistic Personality Traits**

Early conceptualizations of narcissism emphasized its intrapersonal dynamics, in that the purportedly high self-esteem and arrogance in narcissistic individuals is underlain by a more vulnerable sense of self (Kernberg, 1975; Vater et al., 2013). Grandiose traits develop as a mask to hide this vulnerability and may be elicited by particular interpersonal events in one's life, such as a threat to an individual's ego. More recent research focused on daily and momentary manifestations of narcissism have begun to empirically examine these kinds of dynamic hypotheses about narcissism, while integrating the advances in the trait conceptualization of narcissism (i.e., the trifurcated model). For example, one line of research has sought to examine whether individuals fluctuate between grandiosity and vulnerability across time, but the research on fluctuations between narcissistic states has yielded ambiguous results (Edershile & Wright 2021a). Another line of research aims to integrate contextual differences in situations with individual differences in personality pathology. A study done on interpersonal relations in narcissism found that when an interaction partner is perceived as more communal or warm, grandiose strategies are utilized to combat status-threats. However, when an interaction partner is perceived as less communal, the individual may express more vulnerable traits, including disengagement or submissive behavior. These results suggest that in everyday situations, narcissism is impacted by interpersonal experiences and perceptions (Roche et al., 2013).

This literature also reflects a shift in personality research more broadly that is focused on assessing personality states. While traits are relatively stable among individuals, they do not predict momentary, trait-relevant behavior very strongly (Fleeson, 2004). To highlight this concept, whole trait theory (Fleeson & Jayaqickreme, 2014) argues that state expressions are driven by situational factors alongside individual and motivational processes. Whole trait theory

emphasizes the importance of dynamic reactions to one's environment, and understanding how these processes occur (and potentially aggregate) over time can help develop more process-focused accounts of personality and personality pathology (Baumert et al., 2018). When focusing on general personality in daily life, numerous studies have found that there are substantial variations in the expression of personality states over repeated assessments, with variation being linked to observed differences across situations and context (e.g., variety in social partners, places, and activities contribute to variations in the expression of Big Five Traits on a daily level; Lindner et al., 2023). It is clear that trait expressions are dynamic and context-dependent, and, in narcissism specifically, personality expression has been viewed as a complex and dynamic system (Edershile & Wright, 2021b), which suggests that measurement approaches attuned to these dynamic processes are needed to better understand narcissism in daily life With interpersonal dysfunction being the core problem of narcissism, and research showing that trait expressions change across circumstances, studying interpersonal context in narcissistic trait expression is essential to understand the mechanisms underlying narcissistic dysfunction.

#### **1.3 The Current Study**

This study has three primary aims related to understanding the expression of narcissistic personality traits in relation to the variety of daily life experiences: **Aim 1:** Examine whether the type of social partner relates to differences in the expression of narcissistic states at the momentary level. That is, are there consistent relations between who the individual is interacting with, and increases in narcissistic trait expression? **Aim 2:** Examine whether variety in disagreements the individual gets into on a given day has an impact on the daily expression of narcissistic traits. **Aim** 

**3:** Examine whether variety in emotional support the individual receives in a given day has an impact on the daily expression of narcissistic traits. I hypothesize that (1) the type of social partner will relate to differences in the expression of narcissistic traits at the momentary level. I will explore whether there are consistent patterns in social partner categories and these trait expressions (e.g., interacting with a romantic partner is consistently linked to more momentary grandiosity). Additionally, I hypothesize that (2) high disagreement days will be linked to elevations in narcissistic grandiosity while (3) high emotional support days will be linked to decreases in narcissistic vulnerability. With these specific aims, I believe we can successfully gain more insight about how interpersonal context affects the expression of narcissistic traits. Through this study of contextual factors, I hope to gain a better understanding as to what predictive factors go into externalizing narcissistic behavior. Secondly, I hope to understand the situational cues that could lead to the psychological processes to unfold in narcissistic individuals, with hopes to gain better insight into what dynamic processes occur when individuals express narcissistic traits.

#### 2.0 Methods

#### 2.1 Participants

The data used for this study were two independent samples of undergraduate students (S1) and community members (S2). Both samples completed a series of baseline assessments and subsequent ambulatory assessment protocols, which were administered through the MetricWire smartphone application.

#### 2.1.1 Sample 1 (S1)

S1 consisted of undergraduate students from the University of Pittsburgh (N=330) who were recruited from introductory psychology courses during the Fall 2018 semester. The age from this sample ranged from 18-25 (M = 18.62, SD = .97). 60.3% of the sample identified as female, 39.1% identified as male, and an additional 2 individuals identified as "non-binary/third gender." The majority of this sample identified as White (81.8%), 9.4% as Asian, 3.9% as Black, 3.9% as multiracial, and <1% as American Indian/Alaskan Native. Two individuals identified with "other" specified racial groups. From the sample, 27.3% had a history of mental health treatment in their lifetime, and 34% (n = 31) received treatment within the past year. Socioeconomic status, measured by family income, was only available for 170 participants, and 25% reported a family income of \$59,999 or lower.

#### 2.1.2 Sample 2 (S2)

Sample 2 consisted of community members (N=342) recruited during 2018 and 2019 online, through the University of Pittsburgh's online participant registry (https://pittplusme.org), and through posted flyers for a study of personality in daily life. Individuals enrolled as full-time undergraduate students were excluded to ensure a diverse sample. Participants were prescreened using items from the NEO Personality Inventory -Revised (NEO-PI-R; Costa, 1992) to ensure relevant personality features were present, and to maintain a 2-1-1 representation of low, moderate, and high levels of trait modesty respectively within each gender and the overall sample. Ages ranged from 18-40 (M=27.99, SD = 5.01). 51.8% identified as female and 47.4% male. Two individuals (0.6%) identified as "non-binary/third gender" and one participant self-identified as "transmasculine". The majority of the sample (84.8%) identified as White, 7.6% as Asian, 3.2% as Black, 3.2% as multiracial, and 0.6% as Native Hawaiian or Other Pacific Islander. Two participants identified as "other" specified racial groups. Among the sample, 42.7% had a lifetime history of mental health treatment, with 58.2% (N = 85) receiving treatment within the past year. Again, SES was measured by family income, and 62% of the sample reported a family income of \$59,999 or lower.

#### 2.2 Measures

#### **2.2.1 Baseline Measures**

*Five-Factor Narcissism Inventory – Short Form (FFNI-SF).* The FFNI-SF (Sherman et al., 2015) is a shorter version of the original Five-Factor Narcissism Inventory (Glover et al., 2012) in which narcissism is assessed across 15 different traits that have been shown to exemplify grandiosity and vulnerability as well as extraversion, antagonism, and neuroticism. This short form includes a five-point Likert scale (0 –very untrue of me, 1– moderately untrue of me, 2– neither true nor untrue of me, 3– moderately true of me, 4– very true of me) on each of the 60-items.

#### 2.2.2 Ecological Momentary Assessment Measures

*Narcissistic Grandiosity/Vulnerability Scale (NG/VS).* The Narcissistic Grandiosity Scale (Crowe et al., 2016) was used to assess momentary levels of narcissistic grandiosity. The four traits that had the highest correlations with grandiosity found in a previous study (Edershile et al., 2019) were used (glorious, prestigious, brilliant, and powerful). These items were given during the ambulatory assessment portion of the study with a 100-point sliding scale which had *not at all* and *extremely* on opposite ends. The Narcissistic Vulnerability Scale (Crowe et al., 2018) consists of 12 traits designed to assess narcissistic vulnerability. Similar to the NGS scale, a previous study showed that the four traits (underappreciated, misunderstood, ignored, and resentful) had the strongest correlations to vulnerability (Edershile et al., 2019). These items were given through the ambulatory assessment portion of the study with a 100-point sliding scale which had *not at all* and *extremely* on opposite ends. Additionally, participants were given the adjectives on the NG/VS

after they indicated they interacted with someone else. Participants were then asked to rate how they felt on each of these traits *during the interaction* on a 0-100 sliding scale.

*Interaction Surveys.* Participants were asked if they had any interpersonal interaction since the last prompt, and if they did, they were asked a number of follow-up questions, including their relationship to the person they interacted with. Interaction partner categories include spouse/significant other, child, parent, other family member, friend/acquaintance, boss/supervisor, co-worker, employee/someone I supervise, and someone I've not met before. To index variety in interaction partners, the number of different partner categories endorsed were summed within each day (*daily variety*) and across the entirety of the EMA protocol (*total variety*).

*End of Day Questions.* In addition to momentary surveys, participants also completed daily surveys (i.e., surveys were completed once a day, at the end of each day). These surveys asked about various behaviors and emotions that occurred over the day. The present study focused on two types of end of day items. The first asked whether participants received emotional support from anyone and to identify from whom they received the support out of ten options (e.g., spouse/significant other, child, parent, etc). The second asked whether participants had an argument with anyone and to identify with whom they argued with out of the same ten options. For the two end of day items, the number of categories endorsed across the entirety of the EMA protocol were summed to index total variety scores in emotional support and arguments.

#### 2.3 Procedure

Ambulatory assessments began within a few days after baseline assessments, Surveys were prompted through the participant's smartphone on a random schedule between 9 AM to 9 PM daily, for ten days. S1 (undergraduate sample) received five surveys per day while S2 (community sample) received seven surveys per day. Each survey was given 90 minutes apart and participants had up to 30 minutes to complete the survey once prompted. An additional end of day survey was administered daily throughout the ten-day study period to participants in both samples.

#### **3.0 Results**

To analyze the links between interpersonal contexts and the momentary expression of narcissistic traits, analyses were conducted at the momentary level and daily level. All analyses were performed using R Statistical Software (v4.3.1; R Core Team 2023).

#### **3.1 Momentary-Level Analyses**

To examine whether interacting with a specific type of interaction partner (e.g., spouse versus friend) led to increases or decreases in narcissistic states, within-person correlations were computed between interaction partner category and grandiose and vulnerable narcissistic states using the 'rmcorr' package (Bakdash & Marusich, 2023).

In S1, individuals reported higher momentary grandiosity when interacting with a spouse/significant other. The within-person correlation between narcissistic grandiosity and interacting with a spouse/significant other yielded a correlation coefficient of r = 0.08 (95% CI [.06, .10]). Additionally, individuals reported significantly lower momentary grandiosity when interacting with a boss, with a within-person correlation coefficient of r = -.06 (95% CI [-.09, - .04]). All other correlation coefficients between social partner category and momentary narcissistic expression yielded nonsignificant results.

In S2, individuals reported differing levels of narcissistic grandiosity and vulnerability when interacting with a friend. The within-person correlation between narcissistic vulnerability and interacting with a friend yielded a significant negative correlation (r = -.08, 95% CI [-.10, -

.06]). However, the within-person correlation between narcissistic grandiosity and interacting with a friend was significant and positive (r = .05, 95% CI [.03, .07]). Additionally, individuals in S2 reported increased narcissistic vulnerability when interacting with a spouse/significant other (r =.05 (95% CI [.03, .07]). Individuals also reported increases in vulnerable narcissism when interacting with a boss (r = .05 (95% CI [.03, .06]). All other correlation coefficients between social partner category and momentary narcissism yielded nonsignificant results.

#### **3.2 Daily-Level Analyses**

To examine daily interpersonal variables in relation to the momentary expression of narcissism, I used multilevel regression models, which allow for the regression models to account for observations being nested within participants. Daily expression of both grandiose and vulnerable narcissism were calculated as within-day averages, assessed by the NG/VS scales. Two variety scores were calculated, with one being the number of different interaction partners with whom the individual argued with, and the other being the number of different interaction partners the individual received emotional support from within each day. Thus, reporting arguments with distinct interaction partner categories on a given day (e.g., friend, partner, boss) would result in a higher variety score for that day. Variety scores were person-mean centered for the analyses. Four multilevel models were examined, with each predictor (argument/support variety) and outcome (daily grandiosity/vulnerability) assessed separately.

Two additional multilevel models were examined; one with daily vulnerable narcissism as the outcome and one with daily grandiose narcissism as the outcome but with variety scores were entered simultaneously as predictors. All regression coefficients from the multilevel regression models were small in magnitude and not significant ( $\beta$  range= -.16 to .07). In other words, no support was found for the hypothesis that daily increases in the variety of interaction partners participants argued with or received emotional support from had an enhancing or dampening effect on daily levels of narcissistic traits.

Variety scores for emotional support and arguments were also correlated with baseline FFNI scores to examine how trait narcissism relates to average variety scores over the course of the EMA protocol (i.e., total amount of variety). These variety scores were constructed the same way as the daily variety scores by calculating the number of different interaction partners with whom the individual argued with or received emotional support from. These scores were then aggregated across all days of the EMA protocol to provide an average variety score for each participant.

Variety in emotional support was negatively correlated with baseline grandiosity between both samples (r = -.16 in S1; r = -.15 in S2). Additionally, variety in arguments was positively correlated with baseline vulnerability in both samples (r = .13 in S1 and S2). All other correlation coefficients were small in magnitude and not significant (r range= -.04 to .10)

#### 4.0 Discussion

Interpersonal dysfunction is a key domain of narcissism (Campbell & Baumeister, 2006), and it is important for research to identify the mechanisms that may contribute to this dysfunction. Furthermore, because narcissism is comprised of multiple traits (Miller et al., 2017), and these traits being differentially expressed across situations (Edershile & Wright, 2021b), it is essential to identify contexts reliably tied to the expression of different narcissistic states. This study aimed to understand which contextual factors were significant in predicting narcissistic vulnerability and grandiosity and to expand the literature on narcissism in daily life.

The first aim of this study was to examine whether the type of social partner related to differences in the expression of momentary narcissistic states. There was mixed evidence that social partner had an influence on momentary narcissism, and significant effects were small in magnitude. Within S1, individuals reported both increased grandiosity and vulnerability when interacting with a significant other. Additionally, when interacting with a boss, individuals reported feeling less grandiose. Within S2, individuals reported increased vulnerability when interacting with a significant other, and also reported increased vulnerability when interacting with a boss. Additionally, individuals in S2 reported both decreased vulnerability and increased grandiosity when interacting with a friend, and this was not observed in S1. Increased vulnerability when interacting with a significant other was the only pattern observed between both samples.

The differing results between samples may be attributable to ambiguity within the social partner category labels. For example, the category of "friend/acquaintance" groups two social partner categories together. Taking previous findings into account, individuals show different patterns of state expression as a function of proximity to interaction partners (Lindner et al., 2023),

and emotional closeness may differ significantly between a close friend and an acquaintance. Moreover, college students (S1) are often interacting with other individuals of the same age, due to proximity and nature of college campuses, and the distinction between a "friend" and an "acquaintance" might not be as nuanced, which may attribute to our nonsignificant findings within S1. However, in a community sample (S2), this distinction between a "friend" and an "acquaintance" may be much more discernable compared to a student sample, which may partially explain discrepant findings across the samples.

Another important distinction to make is that these results indicate *feelings* of grandiose and vulnerable narcissism. Therefore, individuals experienced feelings of grandiosity and vulnerability when interacting with different social partners at the momentary level, but this leaves many other factors of the interpersonal context (e.g., perceptions of others, observable behavior) unexplored. Past research on the expression of narcissism in daily life looked at perception of social partner, and found that perceived warmness/coldness of the social partner has a significant effect on the expression of grandiose and vulnerable behaviors (Roche et al., 2013). Considering disparities between thoughts and actual behaviors is particularly important in narcissism as some research argues that grandiose traits develop as a mask to hide vulnerability (Kernberg, 1975; Vater et al., 2013). This suggests that thoughts of oneself and actual behaviors may be inconsistent, and assessment approaches that can disaggregate these components (e.g., observer reports) would be valuable. Although the effect sizes of these results were small, it is important to note that there was some variability among levels of grandiose and vulnerable narcissism within individuals, supporting our hypothesis. Nonetheless, the observed effect sizes indicate that individuals do not differ substantially from their mean levels of narcissistic grandiosity and vulnerability at the momentary level when considering broad interpersonal contexts. The small effect sizes combined

with previous research on narcissism in daily life indicate that examining the relationship to the social partner alone may not be sufficient to observe large fluctuations in narcissistic states at the momentary level, and more information is needed to understand any potential patterns in this variability of narcissistic state expression.

The second aim of this study was to examine whether variety in the social partners the individual argued with on a given day had an impact on daily expression of narcissism. The results did not indicate that variety in arguments was a significant predictor of narcissism, contrary to my hypothesis that high disagreement days would be linked to elevations in narcissistic grandiosity. The lack of support for the hypothesis may be partially explained by the

operationalization used in the present study. Specifically, individuals may have greater variety scores despite having smaller arguments with many different people while another individual may have lower variety scores despite having a significant conflict or arguments with a specific person. More intense arguments may show stronger results in the expression of narcissistic states, and assessing variety in arguments in this way may overlook more acute instances of interpersonal conflict. This is especially important to consider as interpersonal antagonism is a core trait shared among narcissistic individuals (Miller et al., 2017), and has been linked with more intense forms of interpersonal conflict (e.g., different forms of aggression; Vize et al., 2018). The third aim of our study was to examine whether variety in the social partners the individual received emotional support on a given day has an impact on the daily expression of narcissistic traits. Again, the results did not indicate that variety in emotional support was a significant predictor of daily narcissism, contrary to our hypothesis of high emotional support days being linked to decreases in narcissistic vulnerability. Similar to the assessment of argument variety, more information is needed on the context of emotional support, as an individual may have received support from a single individual

despite the support being particularly beneficial, while others may seek support for more inconsequential stressors across broader groups of people, indicating higher variety scores. Correlations between daily variety in emotional support and baseline narcissistic grandiosity indicated a negative correlation across both samples. This suggests that individuals higher in trait grandiose narcissism do not tend to seek out emotional support from a broader range of people, which is consistent with previous conceptualizations of grandiosity being linked to status and dominance (Weiss & Miller, 2018), and seeking out emotional support may be viewed as a threat to status. Additionally, daily variety in arguments and baseline narcissistic vulnerability indicated a positive correlation across both samples. This suggests that individuals who exhibit more narcissistic vulnerability argue with broader groups of people, and this is consistent with previous findings of vulnerable narcissism being linked to irritability and hostility (Miller et al., 2017).

#### **4.1 Limitations**

This study aimed to gain a better understanding as to how interpersonal context affects the expression of narcissistic states. When examining whether there were consistent patterns of narcissistic state expression when interacting with specific social partners, the results were not consistent across samples. These inconsistencies could have been due to a lack of key contextual information regarding each individuals' social partners. As previously mentioned, close friends and acquaintances were both indicated by the same category in the interaction surveys, and this lack of precision may have contributed to inconsistent results between samples. Similarly, our categories for interaction partners were limited in the sense that individuals could have been

interacting with different partners at different times (e.g., two different friends), but the assessment procedure combined these partners into the same category.

Within our daily level predictors, the variety scores did not consider other contextual factors, but rather viewed disagreements and social support as presenting itself similarly among all individuals. Previous studies argue that the state expression of personality is driven by situational factors as well as individual and motivation processes (Fleeson & Jayaqickreme, 2014). While our measures of arguments and emotional support aimed to understand interpersonal context in relation to narcissistic state expression, these interactions are incredibly nuanced and would need to be studied at a closer level to understand how these interactions trigger certain interpersonal processes to unfold among narcissistic individuals

#### **4.2 Future Directions**

In order to gain more information about context in interpersonal interactions, future studies could aim to personalize random-surveys in order to get the most specific information on potential social partners, such as emotional closeness as well as partners' perceptions of interpersonal dynamics in given interactions. While more difficult, these study designs will be best-suited to tackle the dynamic processes most important to narcissism and its momentary expression.

Although the daily level predictors (daily variety in arguments and daily variety in social support) did not provide significant results to support our hypotheses, this information can be used to guide future studies on daily context and narcissistic state expression. Future research should aim to include more daily contextual features relevant to the interaction, such as the perceived severity of disagreement or the perceived benefit of emotional support. Further, these studies

should aim to examine how the interplay between all of these processes simultaneously impact the expression of narcissistic states. All in all, this study highlights the need for more precise assessments of complex interpersonal context to better understand the nuanced dynamics driving narcissistic state expression.

5.0 Figures and Tables

## 5.1 Figures



Figure 1: Within-person Correlations Between Social Partner Categories and Momentary Narcissism (S1) *Note:* Lines around the point estimate represent 95% confidence intervals; All correlations with confidence intervals containing a value of 0 are nonsignificant.



Figure 2: Within-person Correlations Between Social Partner Categories and Momentary Narcissism (S2) *Note:* Lines around the point estimate represent 95% confidence intervals; All correlations with confidence intervals containing a value of 0 are nonsignificant.

### 5.2 Tables

		Daily Grandiosity					Daily Vulnerability			
	В	SE	β	t value	95% CI	В	SE	β	t value	95% CI
Student Sample (S1)										
Emotional Support	.00	.60	.00	.00	-1.18; 1.18	40	.49	03	81	-1.37; 0.57
Arguments	-3.45	2.02	10	-1.70	-7.43; .53	-3.09	2.18	09	-1.42	-7.38; 1.19
Community Sample (S2)										
Emotional Support	61	.43	04	-1.42	-1.45; .23	.24	.35	.02	.67	50; .93
Arguments	28	1.34	.01	.21	-2.36; 2.92	-1.85	1.63	06	-1.13	-5.05; 1.36

Table 1: Variety in E	motional Support and	Arguments Assesse	d Individually
	The second	0	

*Note: B*=unstandardized regression slope; value in parentheses is the standardized regression coefficient; SE=standard error; 95% CI=95% confidence interval for regression slope

		Daily Grandiosity				Daily Vulnerability				
	В	SE	β	t value	95% CI	В	SE	β	t value	95% CI
Student Sample (S1)										
Emotional Support	-2.96	1.74	16	-1.71	-6.35; .46	18	1.54	01	11	-3.20; 2.83
Arguments	-2.96	3.15	08	94	-9.23; 3.19	-4.58	2.81	14	-1.63	-10.10; .90
Community Sample (S2)										
Emotional Support	77	1.41	05	54	-3.54; 2.07	81	1.28	05	63	-3.36; 1.72
Arguments	.18	2.68	.07	.81	-3.10; .42	-2.08	2.60	06	80	-7.18; 3.15

<b>Table 2: Variety in Emotional</b>	l Support and Argument	s Entered Simultaneously
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*Note: B*=unstandardized regression slope; value in pa confidence interval for regression slope

	Base	eline FFNI	Baseli	ne FFNI
	Grandiose		Vulr	nerable
	Na	rcissism	Naro	cissism
	r	95% CI	r	95% CI
Student Sample				
(S1)				
Emotional	16	26;05	.10	01; .21
Support				
Arguments	.08	03; .19	.13	.02; .23
Community Sample				
(S2)				
Emotional	15	25;05	04	14; .07
Support				
Arguments	02	13; .08	.13	.02; .23
		, 100		,
Note: FFNI=Five-fac	tor Nar	cissism Invente	ory	

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