

**A Dynamic Assessment of Affective Variability in Narcissistic Grandiosity and
Vulnerability**

by

Youn Ji Grace Choi

Bachelor of Philosophy, University of Pittsburgh, 2022

Submitted to the Graduate Faculty of the
University Honors College in partial fulfillment
of the requirements for the degree of
Bachelor of Philosophy

University of Pittsburgh

2022

UNIVERSITY OF PITTSBURGH

UNIVERSITY HONORS COLLEGE

This thesis was presented

by

Youn Ji Grace Choi

It was defended on

April 12, 2022

and approved by

Dr. Chelsea Stillman, Research Assistant Professor, Psychology

Dr. Erin Walker, Associate Professor, School of Computing and Information

Dr. Kevin King, Associate Professor, Department Affiliation

Thesis Advisor/Dissertation Director: Dr. Aidan G. C. Wright, Associate Professor, Psychology

Copyright © by Youn Ji Grace Choi

2022

A Dynamic Assessment of Affective Variability in Narcissistic Grandiosity and Vulnerability

Youn Ji Grace Choi, BPhil

University of Pittsburgh, 2022

Clinical theory suggests that specific emotion regulation processes underlie narcissistic grandiosity and vulnerability; however, emotional dysregulation is thought to be a *general* impairment that cuts across most forms of personality pathology, possibly including both narcissistic grandiosity and vulnerability. Previous research has demonstrated that ecological momentary assessment (EMA) is a promising method to capture dynamic processes in daily life, such as affective variability. Affective variability is thought to reflect, in part, emotional volatility and dysregulation. Thus, in this study we use EMA to understand the unique associations between emotional dysregulation and narcissistic grandiosity and vulnerability to further clarify the presence of different nomological networks. Affective variability in daily life was defined by the individual standard deviation (iSD) over momentary reports of positive and negative affect and individual differences in narcissistic grandiosity and vulnerability measured by the FFNI-SF and B-PNI. Results suggest that grandiosity is uniquely associated with positive affect variability and vulnerability with negative affect variability but there were notable differences across instruments.

Table of Contents

1.0 Introduction.....	1
2.0 Methods.....	7
2.1 Participants	7
2.2 Procedures.....	8
2.3 Measures.....	8
2.3.1 Brief-Pathological Narcissism Inventory B-PNI	9
2.3.2 Five-Factor Narcissism Inventory-Short Form (FFNI-SF).....	9
2.3.3 Momentary affect	10
2.4 Analytic Plan	10
3.0 Results	12
3.1 Preliminary Analyses	12
3.1.1 Bivariate correlations with B-PNI grandiosity and FFNI-SF grandiosity and mean affect and affective variability.....	12
3.1.2 Bivariate correlations with B-PNI vulnerability and FFNI-SF vulnerability and mean affect and affective variability	12
3.2 Primary Analyses.....	13
3.2.1 Multivariable regressions with B-PNI grandiosity and FFNI-SF grandiosity and mean affect and affective variability	13
3.2.2 Multivariable regressions with B-PNI vulnerability and FFNI-SF vulnerability and mean affect and affective variability	13
3.3 Exploratory Analyses	14

3.3.1 Multivariable regressions with B-PNI grandiosity and FFNI-SF grandiosity and means and variability in specific affect adjectives	14
3.3.2 Multivariable regressions with B-PNI vulnerability and FFNI-SF vulnerability and means and variability in specific affect adjectives	14
4.0 Discussion.....	15
4.1 Strengths, limitations, and future direction	18
4.2 Conclusion	19
5.0 Appendix A: Tables	21
Bibliography	24

List of Tables

Table 1. Description of Samples	21
Table 2. Correlations and standardized beta coefficients from multivariable regressions for affect SD.....	22
Table 3. Correlations and standardized beta coefficients from multivariable regressions for M affect	23

1.0 Introduction

In recent years, there have been numerous studies aiming to clarify the nature of pathological narcissism and the unique ways in which it manifests (Cain et al., 2008; Pincus & Lukowitsky, 2010; Wright & Edershile, 2018). It is now well-established that pathological narcissism is a multi-dimensional construct, consisting of an essential core of entitlement or antagonism that is expressed in grandiose and vulnerable features (Grubbs & Exline, 2016; Krizan & Herlache, 2017; Miller et al., 2017). Narcissistic grandiosity refers to immodest, self-promotional behavior and a desire for high praise from others whereas narcissistic vulnerability is characterized by self-doubt, defensive social withdrawal, and sensitivity to shame (Cain et al., 2008; Pincus & Lukowitsky, 2010). Although many theoretical processes have been proposed to explain these overt behaviors of pathological narcissism, there is very little empirical work substantiating these claims. Having achieved general consensus on the structure of narcissism, the next step towards a more complete understanding of the constructs is to identify within-person processes that distinguish grandiosity and vulnerability.

Research has shown that grandiosity and vulnerability have shared and unique correlates, predictors, and outcomes. Narcissistic vulnerability is associated with internalizing symptoms (Morf et al., 2017), psychological distress, low self-esteem (Barnett & Womack, 2015; Miller et al., 2010; Zeigler-Hill et al. 2008), low subjective well-being (Dashineau et al., 2019), and correlates with all personality disorders (Miller et al., 2017) suggesting it primarily reflects general psychopathology (Campbell & Miller, 2013; Wright & Edershile, 2018). Narcissistic grandiosity, on the other hand, encompasses the most central features of narcissism according to clinical theory, expert consensus, and lay people (Miller et al. 2017) and is associated with low psychological

distress, high self-esteem (Sedikides et al., 2004), high subjective well-being (Dashineau et al., 2019), and only correlates with antisocial and histrionic personality disorders (Miller et al., 2017). Within the Five Factor Model of personality, narcissistic vulnerability is characterized by low agreeableness and high neuroticism and narcissistic grandiosity by low agreeableness and high extraversion (Miller et al., 2017; O'Boyle et al., 2015; Paulhus, 2001). Thus, the shared component of pathological narcissism is disagreeableness/antagonism, whereas vulnerability and grandiosity are distinguished by the basic trait dimensions of neuroticism and extraversion, respectively.

These personality traits underlying vulnerability and grandiosity reflect broad tendencies related to emotional dysregulation which points to key processes that may give rise to the unique nomological networks of each narcissism dimension. Emotion regulation encompasses various processes that help control responses to situations and maintain a relatively stable, emotional setpoint. Neuroticism corresponds to processes governing negative emotion regulation. Individuals high on trait neuroticism have difficulty controlling their negative emotions which manifests in high levels of distress and emotional instability. Because neuroticism tends to be associated with nearly all internalizing pathology, negative emotion dysregulation is considered a possible mechanism driving general psychopathology (Lahey et al., 2017; Tackett et al., 2013). For instance, social anxiety manifests by an intense fear of social situations (Werner et al., 2011), binge eating is often motivated by a need to cope with strong negative emotions (Leehr et al., 2014), negative emotionality is frequently correlated with alcohol use (Chassin et al., 2004; Loukas et al., 2000), and extreme emotional reactions in response to rejection is a core symptom of borderline personality disorder (Domes et al., 2009; Linehan, 1995). While the eliciting situations and specific behavioral responses vary, these pathologies are expressed in intense and variable emotions. In contrast, extraversion corresponds to processes related to positive emotion regulation.

Those high on trait extraversion tend to seek out rewarding experiences that elicit positive emotions and report greater overall well-being (Sharpe et al., 2011).

The clear mapping of the different components of pathological narcissism onto these personality traits raises the possibility that vulnerability reflects negative emotion dysregulation and grandiosity reflects positive emotion dysregulation. This possibility is further reinforced by clinical descriptions of pathological narcissism that emphasizes extreme emotional reactivity to feedback about the self (e.g., narcissistic rage; Kernberg, 1975; Kohut, 1966). For instance, grandiosity is associated with feelings of positive emotion in response to perceived superiority or admiration from others encountered in daily life, as well as elevated hostility and aggression when that praise is denied, whereas vulnerability is associated with strong negative emotions in response to perceived slights and feelings of inferiority (Dawood & Pincus, 2017; Horowitz, 2009; Ronningstam, 2009). Despite a strong conceptual link between both negative and positive emotional dysregulation and pathological narcissism, the evidence is mostly speculative since it is based primarily on cross-sectional research that fails to capture the dynamic, within-person regulatory processes.

Ecological momentary assessment (EMA) is an ideal method to measure dynamic phenomena such as emotional dysregulation (Myers et al., 2006; King et al., 2018; Kesselring et al., 2021; Soyster et al., 2019). Indeed, there is a large body of literature using EMA to investigate emotional dysregulation, which is typically operationalized by within-person variability in emotions. Variability indicates frequent and/or intense shifts in affect from one's emotional baseline in response to internal and external stimuli, suggesting poorly controlled reactions (Ebner-Priemer et al., 2009). Because of the centrality of negative emotion dysregulation to psychopathology, most EMA research has focused on negative-not positive-emotion variability.

Consistent with the role of negative emotion dysregulation, this literature has shown that neuroticism, personality pathology, and many internalizing disorders such as social anxiety, eating disorders, and major depressive disorders are associated with elevated negative emotion variability (Claes et al., 2012; Crowe et al., 2019; Houren et al., 2015; Farmer & Kashdan, 2014; Lamers et al., 2018; Ringwald et al., 2021). In EMA studies of positive emotions in everyday life, psychopathology tends to manifest in relatively lower overall levels of positive emotions with much weaker ties to positive emotion variability (Heininga & Kuppens, 2021). Thus, narcissistic vulnerability may manifest in more negative emotion variability consistent with its close correspondence with general psychopathology whereas grandiosity may be set apart from other forms of psychopathology by unique associations with more positive emotion variability.

Although there is limited EMA research on pathological narcissism, few studies to date provide initial evidence for the role of regulatory processes in this pathology. For example, Giacomini and Jordan (2016) showed that on days of high positive agentic outcome, individuals reported high state narcissism and on days of reported stress, individuals reported low state narcissism (Giacomini & Jordan, 2016). The findings of this study supported theoretical and conceptual accounts suggesting that narcissism is involved in regulating positive and negative states in daily life (Kernberg, 1975; Kohut, 1976; Ronningstam, 2009; Morf et al., 2011). For example, some experts have proposed that hostility, a common trait associated with narcissistic grandiosity, is a reactive self-regulatory process to protect oneself. Additionally, to support the idea of narcissism as a self-regulatory process, former research on narcissism presented that on days of interpersonal problems, narcissists showed greater fluctuations in positive and negative affect (Wright et al., 2017). Recently, results from Edershile and Wright (2021) also showed variability in momentary narcissistic states were moderately associated with dispositional

assessments of narcissism suggesting that trait grandiosity and vulnerability are related to regulatory patterns. To the best of our knowledge, there are only two studies to date looking at affective variability and narcissism. Results from each study show conflicting results about the role of regulatory processes and therefore has raised more questions on the prospect of emotional dysregulation. Emmons (1987) demonstrated that the Narcissistic Personality Inventory, a measure of maladaptive interpersonal outcomes of narcissistic grandiosity (e.g., aggressiveness, greed, dominance) (Campbell & Miller, 2011; Giacomin & Jordan, 2016), positively correlated with both positive and negative mood variability. However, Rhodewalt and colleagues' (1998) attempt to replicate the findings of Emmons (1987) study failed and the NPI was only positively correlated with positive affect variability and uncorrelated with negative affect variability. Results from both studies were inconsistent, excluded narcissistic vulnerability, and included an undergraduate sample size of 62 and 53 for Emmons (1987) and Rhodewalt and colleagues (1998), respectively. To resolve the tension and limitations between these two studies and to further clarify why narcissistic vulnerability and grandiosity may have different nomological networks (e.g., different predictors, correlates, and outcomes) requires conducting a study in a large sample size, while capturing dynamic data.

The purpose of this study was to clarify how emotional dysregulation relates to narcissistic vulnerability and grandiosity with EMA. My research will add to the growing body of narcissism literature and fill in the gaps of previous EMA literature by examining associations between positive and negative affect variability in relation to both narcissistic vulnerability and grandiosity. To determine if negative and positive emotion dysregulation distinguish these dimensions, I examined whether grandiosity and vulnerability had differential associations with positive and

negative affect variability. As an exploratory analysis, I examined associations between specific affects.

Based on previous theory, empirical research, and clinical descriptions examining the role of regulatory processes in pathological narcissism, it is evident that there is a lot of overlap between grandiosity and vulnerability. However, despite the shared tendencies, they also have unique, distinguishing features. Therefore, I hypothesized narcissistic grandiosity and vulnerability to be associated with higher affect variability but display unique correlations. Given the correspondence between narcissistic vulnerability and general psychopathology and neuroticism (Miller et al., 2017), I expected narcissistic vulnerability to be uniquely associated with negative affect variability reflecting negative emotion dysregulation. Whereas because narcissistic grandiosity is linked to extraversion and with highs and lows of self-esteem/grandiosity, I expected it to be uniquely associated with positive affect variability reflecting positive emotion regulation.

2.0 Methods

2.1 Participants

Participants for this study were drawn from five independent samples representing students ($n= 957$) and community members ($n= 653$) from the Pittsburgh region. All student sample participants were recruited from introductory psychology courses. Community sample participants were recruited through online and flier advertisements. Inclusion criteria for all samples included being over the age of 18 and a user of an iOS or Android smartphone to complete the EMA surveys. There were additional inclusion criteria for the two community samples. Participants in sample 1 (community) had to be between the ages of 18 and 40 and not currently receiving treatment for psychosis or a psychotic disorder. Additionally, participants were screened to ensure the sample represented an adequate range of personality pathology and interpersonal problems. The sample was also selected to create a balance of individuals who had received recent mental health treatment in the past year with those who had not. The Inventory of Interpersonal Problems (Morse & Pilkonis, 2007) was used to pre-screen participants and were recruited in a 1-1-1 representation of low, moderate, and high levels of interpersonal difficulties within gender, treatment status, and the overall sample. For participants in sample 2 (community), only individuals who were not currently enrolled as full-time undergraduate students were eligible to participate. Additional preliminary screening was conducted to ensure a gender-balanced sample and to ensure an adequate representation of personality traits of interest to the parent study. Specifically, the NEO Personality Inventory - Revised (Costa & McCrae, 1992) was used to pre-screen for modesty and participants were recruited for participation to maintain a 2-1-1 representation of low, moderate,

and high levels of trait modesty within each gender and the overall sample. Sample specific details about the demographics are provided in Table 1.

2.2 Procedures

All samples included a baseline assessment followed by an EMA protocol. Dispositional narcissism was self-reported at the baseline assessment for all samples, but the instruments used varied across samples. For all samples, positive and negative affect were self-reported five to seven times per day on a random prompt schedule during the EMA protocol. The number of days and number of surveys delivered per day varied across samples. Surveys were completed using the MetricWire smartphone application. Sample specific details about the EMA protocol and measures are provided in Table 1. Participants in the student samples were compensated with course credit. Community participants received \$50 (Sample 1) or \$75 (Sample 2) for completing the baseline assessment and up to \$100 (Sample 1) or \$110 (Sample 2) for the EMA protocol depending on survey completion rate.

2.3 Measures

Narcissistic grandiosity and vulnerability were assessed using the Five-Factor Narcissism Inventory Short Form (FFNI-SF; Sherman et al., 2015) in samples 2, 3, 4 and 5 or brief Pathological Narcissism Inventory (B-PNI; Schoenleber et al., 2015) in samples 1, 2, 3, 4 and 5.

2.3.1 Brief-Pathological Narcissism Inventory B-PNI

The B-PNI is a shortened version of the Pathological Narcissism Inventory (PNI; Pincus et al., 2009) multidimensional self-report measure (PNI; Pincus et al., 2009), including only 28 of the 52 items. Schoenleber and colleagues (2015) demonstrated criterion validity of the B-PNI, supporting an interchangeable use of the PNI or B-PNI. Questions in the B-PNI ask participants to indicate the extent to which various statements describe them (e.g., “*It’s hard to feel good about myself unless I know other people admire me*”). Items are rated on a scale from one (*not at all like me*) to five (*very much like me*). Items are averaged to yield seven subscales that are then averaged to produce scores for grandiosity (Self-Sacrificing Self-Enhancement, Grandiose Fantasy, Exploitativeness) and vulnerability (Contingent Self-Esteem, Hiding the Self, Devaluing, Entitlement Rage).

2.3.2 Five-Factor Narcissism Inventory-Short Form (FFNI-SF)

The 60-item FFNI-SF is an abbreviated version of the FFNI self-report instrument (Glover et al., 2012). The FFNI-SF measures traits from the five-factor model of personality that were empirically derived to assess vulnerable and grandiose narcissism. The standard rating scale for the FFNI-SF is a five-item Likert-style from zero (*disagree strongly*) to four (*agree strongly*). Due to a set-up error, the entire inventory was presented with different labels from zero (*very untrue of me*) to four (*very true of me*). Items were averaged to produce scores for narcissistic grandiosity and vulnerability. Glover and colleagues (2012) demonstrated convergent, discriminant and incremental validity of the measure, and Sherman and colleagues (2015) provided data suggesting the FFNI-SF to be a viable replacement for the FFNI when assessment time is limited.

2.3.3 Momentary affect

Affect was assessed with nearly identical scales in the EMA protocol in every sample. Items were adapted from the Positive and Negative Affect Schedule-Expanded Form (Watson & Clark, 1999) to assess momentary affect and asked participants “*How ADJECTIVE do you feel right now?*”. In every sample, items were related on a sliding scale from 0 (*not at all*) to 100 (*extremely*). For this study, we used five positive affect items (happy, proud, content, excited, relaxed) and five negative affect items (ashamed, nervous, sad, angry) that were administered to every sample. Scores for positive and negative affect were calculated by averaging the respective items.

2.4 Analytic Plan

To investigate the role of emotion dysregulation in narcissism, we examined bivariate correlations between narcissistic grandiosity and vulnerability and average levels of affect and affective variability. Additionally, we used multivariable regressions to disentangle the unique associations between grandiosity and vulnerability and each affect variable. In these models, grandiosity and vulnerability were entered as simultaneous predictors of each affect measure to adjust for their shared variance.

Average affect was indexed by each participant’s mean level of affect across all EMA surveys. Affective variability was measured by calculating the standard deviation of each participant’s EMA measured affect. To evaluate our primary study hypotheses, we examined associations with the mean and standard deviation for positive and negative affect. Additionally,

we looked at associations between narcissism and specific affects (e.g., happy, nervous) in the exploratory analyses.

All analyses were conducted in R Studio (RStudio Team, 2021) and we considered coefficients with p -values $< .05$ to be statistically significant.

3.0 Results

3.1 Preliminary Analyses

3.1.1 Bivariate correlations with B-PNI grandiosity and FFNI-SF grandiosity and mean affect and affective variability

Preliminary analyses demonstrated positive correlations between the B-PNI grandiosity scale and mean levels and variability in both positive and negative affect. The FFNI-SF grandiosity scale was also positively correlated with mean levels of positive and negative affect, but not positive or negative affect variability. Refer to table 2 for affect variability and table 3 for mean affect.

3.1.2 Bivariate correlations with B-PNI vulnerability and FFNI-SF vulnerability and mean affect and affective variability

Preliminary analyses demonstrated positive correlations between the B-PNI vulnerability scale and mean negative affect and negative correlations with mean positive affect. B-PNI vulnerability was positively correlated with both negative and positive affect variability. The FFNI-SF vulnerability scale was also positively correlated with mean negative affect and negatively correlated with positive affect but was positively correlated with only negative affect variability. Refer to table 2 and 3.

3.2 Primary Analyses

3.2.1 Multivariable regressions with B-PNI grandiosity and FFNI-SF grandiosity and mean affect and affective variability

After adjusting for shared variance with B-PNI vulnerability, B-PNI grandiosity was uniquely associated with higher mean positive affect and lower mean negative affect after adjusting for B-PNI vulnerability. B-PNI grandiosity was no longer associated with negative affect variability after adjusting for the shared variance with vulnerability but remained uniquely associated with positive affect variability. FFNI-SF grandiosity was also uniquely associated with higher mean positive affect but also higher mean negative affect. The FFNI-SF grandiosity scale remained unassociated with positive or negative affect variability in the multivariable models. Standardized partial beta coefficients for variability can be found in table 2 and standardized partial beta coefficients for mean affect can be found in table 3.

3.2.2 Multivariable regressions with B-PNI vulnerability and FFNI-SF vulnerability and mean affect and affective variability

After adjusting for shared variance with grandiosity, B-PNI vulnerability was associated with lower mean positive affect and higher mean negative affect. B-PNI vulnerability was no longer associated with positive affect variability but remained uniquely associated with negative affect variability. FFNI-SF vulnerability was associated with lower mean positive affect and higher mean negative affect. Additionally, the FFNI-SF vulnerability scale remained uniquely associated with negative affect variability. Refer to table 2 and 3.

3.3 Exploratory Analyses

3.3.1 Multivariable regressions with B-PNI grandiosity and FFNI-SF grandiosity and means and variability in specific affect adjectives

After adjusting for vulnerability, B-PNI grandiosity was uniquely associated with the lower mean levels of nervous and sad and higher mean levels of all specific positive affect adjectives. B-PNI grandiosity was uniquely associated with lower variability in sad and higher variability in nervous, happy, excited, relaxed, and proud. FFNI-SF grandiosity was uniquely associated with the higher mean levels of ashamed, angry, happy, excited, relaxed, and proud. FFNI-SF grandiosity was uniquely associated with lower variability in nervous, happy, and content and higher variability in angry, relaxed, and proud. Refer to table 2 and 3.

3.3.2 Multivariable regressions with B-PNI vulnerability and FFNI-SF vulnerability and means and variability in specific affect adjectives

After adjusting for grandiosity, B-PNI vulnerability was uniquely associated with higher mean levels of all specific negative affect adjectives and lower mean levels of all specific positive affect adjectives. B-PNI vulnerability was uniquely associated with higher variability in all specific negative affect adjectives and lower variability in relaxed and proud. FFNI-SF vulnerability was uniquely associated with the higher mean levels of all specific negative affect adjectives and lower mean levels of all specific positive affect adjectives. FFNI-SF vulnerability was uniquely associated with higher variability in all specific negative affect adjectives and happy. These specific affect associations can be found in table 2 and 3.

4.0 Discussion

The purpose of this study was to delineate the unique associations of positive and negative affect variability in relation to narcissistic grandiosity and vulnerability. Although we examined associations with mean levels of affect for completeness, our primary focus of the research was on affect variability because of its link to processes of emotion dysregulation. The association between grandiose narcissism and higher self-esteem, gregariousness, a zero-sum approach, and extraversion has been well established over decades of research. Similarly, so has been the association between vulnerable narcissism and low self-esteem, consistent negative affectivity, and neuroticism. Despite reaching a common ground on the traits and overt behaviors that define narcissism, it is still unclear as to what the underlying drive behind these similarities and differences are. Many former studies (e.g., Bosson et al., 2008; Campbell and Foster, 2007; Morf and Rhodewalt, 2001) have proposed that these differences may be a result of self-regulatory processes. For example, Bosson and colleagues (2008) proposed the Mask Model, which explained the manifestation of narcissistic grandiosity and vulnerability as a response to negative feedback about the self, indicating the process of self-regulation. Therefore, this study sought to better understand the unique dysregulatory processes (positive/negative affect variability) that may be associated with narcissistic grandiosity and vulnerability. Results from the multivariable regressions demonstrated B-PNI vulnerability and FFNI-SF vulnerability to show a unique association with negative affect variability, whereas B-PNI grandiosity but not FFNI-SF grandiosity showed a unique association with positive affect variability. These findings provide mixed support for the notion that vulnerability is associated with negative emotion dysregulation and grandiosity with positive emotion dysregulation.

It is important to note differences across the narcissism measures we used. Although the B-PNI and FFNI-SF both measure pathological narcissism, the difference in how the two were developed may be one reason that the B-PNI was the only measure to have unique associations with grandiosity and positive affect variability and vulnerability with negative affect variability. The PNI was originally created to capture clinical manifestations and processes of narcissism whereas the FFNI-SF was created from the perspective of the Five Factor Model (FFM). Thus, the FFNI-SF is focused more on the traits of pathological narcissism rather than narcissistic processes. The different traditions that informed the development of each measure may explain why the process-focused PNI picked up on more affective variability than did the trait-based FFNI-SF. These differences further reiterate the inconsistency present between the two measures and why our findings may have provided mixed support for the unique association between vulnerability and negative affect variability and grandiosity and positive affect variability.

Overall, these differential associations between positive and negative affect variability and components of narcissism go beyond showing cross-sectional associations with personality traits to suggest overlapping *processes*. Specifically, our results are consistent with the established overlap between vulnerability and neuroticism (Miller et al., 2018) in suggesting each construct may relate to processes governing negative emotion dysregulation (i.e., negative affect variability) and the overlap between grandiosity with extraversion (Miller et al., 2017; O’Boyle et al., 2015; Paulhus, 2001) in suggesting shared processes governing positive emotion dysregulation (i.e., positive affect variability). By linking these components of pathological narcissism to affective processes, our results also provide support as to why grandiosity and vulnerability may have such different nomological networks. It has been proposed that vulnerable and grandiose features of narcissism manifest as a result of self-regulatory processes (Bosson et al., 2008; Geukes et al.,

2017; Giacomin and Jordan, 2016) and the results from our study provide supporting evidence for these regulatory processes. Despite the lack of consistency between the two measures, a clear take away from our study is that findings provide mixed support for the notion that vulnerability is uniquely associated with negative emotion dysregulation and grandiosity with positive emotion dysregulation. These results indicate that emotional dysregulation may be the possible underlying motivational dynamic of pathological narcissism.

The exploratory analyses suggest that there are differences present between both narcissism measures and that there are unique associations with vulnerability and grandiosity. However, it is important to note that the adjectives nervous and proud were both uniquely associated with vulnerability and grandiosity. The vulnerability scale for the B-PNI and FFNI-SF was associated with high mean levels of nervousness and high variability in nervousness, whereas the B-PNI and FFNI-SF grandiosity scale was not uniquely associated with mean levels of nervousness but was uniquely associated with high variability. Likewise, B-PNI and FFNI-SF grandiosity were uniquely associated with high mean levels of pride and high variability in pride but B-PNI and FFNI-SF vulnerability was associated with low mean levels of pride and low variability in pride. Taken together, these results exhibit different emotional profiles for vulnerability and grandiosity. More grandiose individuals do not show an overall level of feeling nervousness but they tend to vary in levels of nervousness throughout the day. Grandiosity is also associated with feeling more proud overall but also experiencing more variability in pride in response to situations encountered in their daily life. On the other hand, more vulnerable individuals are more nervous in general and experience fluctuations in nervousness and they experience less overall pride and do not typically respond to everyday situations with changes in pride. In fact, these exploratory analyses provide supporting evidence that vulnerability and grandiosity have shared but unique tendencies,

providing a more fine-grained understanding of how to distinguish the two features. Vulnerable narcissism and the association between overall affect of nervousness is consistent with the idea that vulnerable individuals may more greatly feel an inner insecurity and be reflective of one's low and variable self-esteem (Crowe et al., 2019; Geukes et al., 2017; Miller et al., 2021). This connection would also be present for those who are grandiose, but the feeling would be less so in a state of grandiosity. Grandiose narcissism and the association between overall affect of pride is consistent with the idea that grandiose individuals display more arrogance and entitlement. Likewise, this connection would be present for those who are vulnerable but more so suppressed when in a vulnerable state. All in all, an important conclusion to make from these exploratory analyses is the presence of variability in both affects, with all measures and a clear difference in the overall emotional processes associated with each scale.

4.1 Strengths, limitations, and future direction

Although former studies have suggested the link between emotional dysregulation and pathological narcissism, most work has been cross-sectional. A strength of our study was the use of EMA to capture dynamic data and address this limitation. In the two studies to date on this subject that used EMA, Rhodewalt and colleagues (1998) and Emmons' (1987) study looked at the association between affect variability and the NPI, which is known to be a measure reflecting more grandiosity, failing to capture the vulnerable aspects of narcissism (Cain et al., 2008; Glover et al., 2012; Pincus & Lukowitsky, 2010). These two studies produced inconsistent results, did not distinguish between vulnerable and grandiose narcissism, and included small sample sizes. To address these issues, our study utilized narcissism scales that capture both vulnerability and

grandiosity and incorporated a much larger sample size from independent samples of multiple populations, consisting of undergraduates, a community sample, and a clinical sample. Thus, the results from our study were more generalizable than the former EMA studies examining narcissism.

Along with these strengths our study also had its limitations. Although the EMA protocol we administered successfully captured levels of individual affect, it is impossible to tell whether the presence of variability within these affects are an accurate representation of dysregulation. While a common method to capture emotion dysregulation is by measuring variability of affect, because we cannot be certain that these variabilities indicate dysregulation as there was no data available to understand the specific contextual selections and triggers of the shifts of affects captured by variability. Moving forward, future work should take into consideration different levels of social and cultural context and individual environmental data along with the collection of affect reporting. Doing so could provide qualitative evidence for the unique associations between narcissistic vulnerability and grandiosity.

4.2 Conclusion

To conclude, we examined whether positive emotion dysregulation was a unique feature distinguishing narcissistic grandiosity and whether negative emotion dysregulation was a unique feature distinguishing narcissistic vulnerability. Our results demonstrated differences across narcissism measures, B-PNI and FFNI-SF, and may possibly be because the B-PNI was better at capturing narcissistic processes than the FFNI-SF. Overall, our findings suggest that narcissistic grandiosity and vulnerability have shared and unique tendencies related to emotion regulation

processes and these results partially substantiate the claims as to why vulnerability and grandiosity may have shared but also such unique characteristics.

5.0 Appendix A: Tables

Table 1. Description of Samples

	Sample				
	(1)	(2)	(3)	(4)	(5)
Sample type	Clinical/Community	Community	Student	Student	Student
Sample size	311	342	396	231	330
Age M(SD)	27.9 (6.4)	342	396	231	330
Gender (% female)	51%	52%	57%	61%	60%
Days of EMA protocol	14	10	7	7	10
Number of surveys per day	6	7	6	6	5
Narcissism assessment	B-PNI	FFNI-SF, B-PNI	FFNI-SF, B-PNI	FFNI-SF, B-PNI	FFNI-SF, B-PNI

Note. B-PNI = Brief Pathological Narcissism Inventory; FFNI-SF = Five Factor Narcissism Inventory Short Form; EMA = Ecological Momentary Assessment

Table 2. Correlations and standardized beta coefficients from multivariable regressions for affect SD

Predictor	SD	B-PNI		FFNI-SF		
		r	β	r	β	
Vulnerability	<u>Negative Affect</u>	.29**	.26**	.26**	.26**	
	Ashamed	.29**	.27**	.26**	.25**	
	Nervous	.19**	.14**	.17**	.17**	
	Sad	.28**	.32**	.28**	.28**	
	Angry	.22**	.24**	.25**	.24**	
	<u>Positive Affect</u>	.08**	-.01	.03	.04	
	Happy	.10**	.04	.07*	.08**	
	Excited	.04	-.05	.00	.00	
	Content	.12**	.07	.06	.08	
	Relaxed	-.06*	-.14**	.00	-.02	
	Proud	-.05	-.16**	-.02	-.05	
	Grandiosity	<u>Negative Affect</u>	.22**	.04	.04	.00
		Ashamed	.21**	.03	.07**	.04
		Nervous	.17**	.07*	-.05	-.08**
Sad		.14**	-.07*	.01	-.03	
Angry		.13**	-.03	.1**	.07**	
<u>Positive Affect</u>		.14**	.14**	-.04	-.05	
Happy		.12**	.09**	-.09**	-.1**	
Excited		.10**	.14**	-.02	-.02	
Content		.12**	.07	-.14**	-.14**	
Relaxed		.04	.13**	.15**	.15**	
Proud		.06*	.17**	.21**	.22**	

Note. B-PNI = Brief Pathological Narcissism Inventory; FFNI-SF = Five Factor Narcissism Inventory Short Form
r = Bivariate Correlation; β = Standardized; *p < .05, **p < .01

Table 3. Correlations and standardized beta coefficients from multivariable regressions for M affect

Predictor	M	B-PNI		FFNI-SF		
		r	β	r	β	
Vulnerability	<u>Negative Affect</u>	.37**	.42**	.37**	.36**	
	Ashamed	.34**	.35**	.31**	.29**	
	Nervous	.35**	.41**	.36**	.37	
	Sad	.33**	.43**	.36**	.35**	
	Angry	.28**	.30**	.29**	.26**	
	<u>Positive Affect</u>	-.11**	-.32**	-.21**	-.25**	
	Happy	-.14**	-.29	-.22**	-.24**	
	Excited	-.07**	-.22**	-.14**	-.17**	
	Content	-.11**	-.29**	-.28**	-.30**	
	Relaxed	-.16**	-.33	-.24**	-.26**	
	Proud	-.02	-.21**	-.11**	-.15**	
	Grandiosity	<u>Negative Affect</u>	.20**	-.09**	.14**	.09**
		Ashamed	.21**	-.03	.17**	.14**
		Nervous	.18**	-.09**	.04	-.01
Sad		.14**	-.14**	.08**	.03	
Angry		.17**	-.03	.23**	.19**	
<u>Positive Affect</u>		.10**	.31**	.21**	.25**	
Happy		.04	.23**	.10**	.13**	
Excited		.08**	.22**	.21**	.23**	
Content		.08*	.27**	.07	.10	
Relaxed		.04	.26**	.08**	.12**	
Proud		.14**	.28**	.31**	.33**	

Note. B-PNI = Brief Pathological Narcissism Inventory; FFNI-SF = Five Factor Narcissism Inventory Short Form
r = Bivariate Correlation; β = Standardized; *p < .05, **p < .01

Bibliography

- Barnett, M. D., & Womack, P. M. (2015). Fearing, not loving, the reflection: Narcissism, self-esteem, and self-discrepancy theory. *Personality and Individual Differences, 74*, 280–284.
- Bosson, J. K., Lakey, C. E., Campbell, W. K., Zeigler-Hill, V., Jordan, C. H., & Kernis, M. H. (2008). Untangling the links between narcissism and self-esteem: A theoretical and empirical review. *Social and Personality Psychology Compass, 2*(3), 1415-1439.
- Cain, N.M, Pincus, A.L., & Ansell, E.B. (2008). Narcissism at the crossroads: Phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review, 28*, 638-656.
- Campbell, W. K., & Foster, J. D. (2007). The narcissistic self: Background, an extended agency model, and ongoing controversies. *The self, 115*, 138.
- Campbell, W. K., & Miller, J. D. (2013). Narcissistic personality disorder and the five-factor model: Delineating narcissistic personality disorder, grandiose narcissism, and vulnerable narcissism. In T. A. Widiger & P. T. Costa, Jr. (Eds.), *Personality disorders and the five-factor model of personality* (pp. 133–145).
- Chassin, L., Flora, D. B., & King, K. M. (2004). Trajectories of Alcohol and Drug Use and Dependence From Adolescence to Adulthood: The Effects of Familial Alcoholism and Personality. *Journal of Abnormal Psychology, 113*(4), 483–498.
- Claes, L., Jiménez-Murcia, S., Agüera, Z., Castro, R., Sánchez, I., Menchón, J. M., et al. (2012). Male eating disorder patients with and without non-suicidal self-injury: A comparison of psychopathological and personality features. *European Eating Disorders Review, 20*, 335–338.
- Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment, 4*(1), 5–13.
- Crowe, M. L., Edershile, E. A., Wright, A. G., 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.
- Crowe, M. L., Sleep, C. E., Carter, N. T., Campbell, W. K., & Miller, J. D. (2018). Self-esteem and narcissism: An item response theory analysis of curvilinearity. *Personality and Individual Differences, 128*, 16-20.
- Dashineau, Edershile, E. A., Simms, L. J., & Wright, A. G. C. (2019). Pathological Narcissism and Psychosocial Functioning. *Personality Disorders, 10*(5), 473–478.

- Dawood, S., & Pincus, A. L. (2018). Pathological narcissism and the severity, variability, and instability of depressive symptoms. *Personality Disorders: Theory, Research, and Treatment*, 9(2), 144–154.
- Domes, G., PhD., Schulze, L., M.Sc., & Herpertz, S. C., M.D. (2009). Emotion Recognition in Borderline Personality Disorder-A Review of the Literature. *Journal of Personality Disorders*, 23(1), 6-19.
- Ebner-Priemer, Eid, M., Kleindienst, N., Stabenow, S., & Trull, T. J. (2009). Analytic Strategies for Understanding Affective (In)Stability and Other Dynamic Processes in Psychopathology. *Journal of Abnormal Psychology (1965)*, 118(1), 195–202.
- Edershile, E. A., Simms, L. J., & Wright, A. G. (2019). A multivariate analysis of the pathological narcissism inventory's nomological network. *Assessment*, 26(4), 619-629.
- 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.
- Edershile, E. A., & Wright, A. G. (2021). Grandiose and vulnerable narcissistic states in interpersonal situations. *Self and Identity*, 20(2), 165-181.
- Edershile, E. A., & Wright, A. G. (2022). Narcissism dynamics. *Social and Personality Psychology Compass*, 16(1), e12649.
- Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology*, 52(1), 11–17.
- Farmer, A. S., & Kashdan, T. B. (2014). Affective and Self-Esteem Instability in the Daily Lives of People With Generalized Social Anxiety Disorder. *Clinical Psychological Science*, 2(2), 187–201.
- Geukes, K., Nestler, S., Hutteman, R., Dufner, M., Küfner, A. C. P., Egloff, B., . . . Back, M. D. (2017). Puffed-up but shaky selves: State self-esteem level and variability in narcissists. *Journal of Personality and Social Psychology*, 112(5), 769-786.
- Giacomin, M., & Jordan, C. H. (2016). Self-focused and feeling fine: Assessing state narcissism and its relation to well-being. *Journal of Research in Personality*, 63, 12-21.
- Glover, N., Miller, J. D., Lynam, D. R., Crego, C., & Widiger, T. A. (2012). The five-factor narcissism inventory: A five-factor measure of narcissistic personality traits. *Journal of personality assessment*, 94(5), 500-512.
- Grubbs, & Exline, J. J. (2016). Trait Entitlement: A Cognitive-Personality Source of Vulnerability to Psychological Distress. *Psychological Bulletin*, 142(11), 1204–1226.
- Heininga, V. E., & Kuppens, P. (2021). Psychopathology and positive emotions in daily life. *Current Opinion in Behavioral Sciences*, 39, 10-18.

- Horowitz, M. (2009). Clinical phenomenology of narcissistic pathology. *Psychiatric Annals*, 39(3), 124–128.
- Kernberg. (1975). *Borderline conditions and pathological narcissism*. J. Aronson.
- Kesselring, I., Yaremych, H. E., Pegg, S., Dickey, L., & Kujawa, A. (2021). Zoom or In-Person: An Ecological Momentary Assessment Study of The Effects of Time With Friends and Depressive Symptoms on Affect in Emerging Adults. *Journal of Social and Clinical Psychology*, 40(2), 97-120.
- King, K. M., Feil, M. C., & Halvorson, M. A. (2018). Negative urgency is correlated with the use of reflexive and disengagement emotion regulation strategies. *Clinical Psychological Science*, 6(6), 822-834.
- Kernberg, O. F. (1975). Transference and countertransference in the treatment of borderline patients. *Journal of the National Association of Private Psychiatric Hospitals*, 7(2), 14–24.
- Kohut, H. (1968). The psychoanalytic treatment of narcissistic personality disorders: Outline of a systematic approach. *The Psychoanalytic Study of the Child*, 23, 86–113.
- Kohut, H. (1972). Thoughts on narcissism and narcissistic rage. *Psychoanalytic Study of the Child*, 27, 360-400.
- Kohut, H. (1966). Forms and transformations of narcissism. *Journal of the American Psychoanalytic association*, 14(2), 243-272.
- Krizan, & Herlache, A. D. (2018). The Narcissism Spectrum Model: A Synthetic View of Narcissistic Personality. *Personality and Social Psychology Review*, 22(1), 3–31.
- Lahey, Krueger, R. F., Rathouz, P. J., Waldman, I. D., & Zald, D. H. (2017). Validity and utility of the general factor of psychopathology. *World Psychiatry*, 16(2), 142–144.
- Lamers F, Swendsen J, Cui L, Husky M, Johns J, Zipunnikov V, Merikangas KR. Mood reactivity and affective dynamics in mood and anxiety disorders. *J Abnorm Psychol*. 2018 Oct;127(7):659-669.
- Leehr, Krohmer, K., Schag, K., Dresler, T., Zipfel, S., & Giel, K. E. (2015). Emotion regulation model in binge eating disorder and obesity - a systematic review. *Neuroscience and Biobehavioral Reviews*, 49, 125–134.
- Linehan, M. M. (1995). *Understanding borderline personality disorder*. New York: Guilford Press.
- Loukas, A., Krull, J., Chassin, L., & Carle, A. (2000). The relation of personality to alcohol abuse/dependence in a high-risk sample. *Journal of Personality*, 68, 1153–1176.
- Malesza, M., & Ostaszewski, P. (2016). Dark side of impulsivity—Associations between the Dark Triad, self-report and behavioral measures of impulsivity. *Personality and Individual Differences*, 88, 197-201.

- Miller, Few, L. R., Wilson, L., Gentile, B., Widiger, T. A., MacKillop, J., & Keith Campbell, W. (2013). The Five-Factor Narcissism Inventory (FFNI): A Test of the Convergent, Discriminant, and Incremental Validity of FFNI Scores in Clinical and Community Samples. *Psychological Assessment, 25*(3), 748–758.
- Miller, J., Back, M., Lynam, D., & Wright, A. G. (2021, August 5). Narcissism_Overview_CDPS.
- Miller, J. D., Dir, A., Gentile, B., Wilson, L., Pryor, L. R., & Campbell, W. K. (2010). Searching for a vulnerable dark triad: Comparing factor 2 psychopathy, vulnerable narcissism, and borderline personality disorder. *Journal of personality, 78*(5), 1529-1564.
- Miller, J. D., Gentile, B., Wilson, L., & Campbell, W. K. (2013). Grandiose and Vulnerable Narcissism and the DSM–5 Pathological Personality Trait Model. *Journal of Personality Assessment, 95*(3), 284–290.
- Miller, J. D., Lynam, D. R., & Campbell, W. K. (2016). Measures of Narcissism and Their Relations to DSM-5 Pathological Traits: A Critical Reappraisal. *Assessment (Odessa, Fla.), 23*(1), 3–9.
- Miller, J. D., Lynam, D. R., Siedor, L., Crowe, M., & Campbell, W. K. (2018). Consensual lay profiles of narcissism and their connection to the Five-Factor Narcissism Inventory. *Psychological Assessment, 30*(1), 10–18.
- Miller, J. D., Lynam, D. R., Vize, C., Crowe, M., Sleep, C., Maples-Keller, J. L., ... & Campbell, W. K. (2018). Vulnerable narcissism is (mostly) a disorder of neuroticism. *Journal of personality, 86*(2), 186-199.
- Myers, T. C., Wonderlich, S. A., Crosby, R., Mitchell, J. E., Steffen, K. J., Smyth, J., & Miltenberger, R. (2006). Is multi-impulsive bulimia a distinct type of bulimia nervosa: Psychopathology and EMA findings. *International Journal of Eating Disorders, 39*(8), 655-661.
- Morey, L. C., & Stagner, B. H. (2012). Narcissistic Pathology as Core Personality Dysfunction: Comparing the DSM-IV and the DSM-5 Proposal for Narcissistic Personality Disorder. *Journal of Clinical Psychology, 68*(8), 908–921.
- Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological inquiry, 12*(4), 177-196.
- Morf, Schürch, E., Küfner, A., Siegrist, P., Vater, A., Back, M., Mestel, R., & Schröder-Abé, M. (2017). Expanding the Nomological Net of the Pathological Narcissism Inventory: German Validation and Extension in a Clinical Inpatient Sample. *Assessment (Odessa, Fla.), 24*(4), 419–443.
- Morf, C. C., Torchetti, L., & Schürch, E. (2011). Narcissism from the perspective of the dynamic self-regulatory processing model. In W. K. Campbell & J. D. Miller (Eds.), *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments* (pp. 56–70). John Wiley & Sons, Inc..

- Morse, & Pilkonis, P. A. (2007). Screening for Personality Disorders. *Journal of Personality Disorders*, 21(2), 179–198.
- O'Boyle, E. H., Forsyth, D. R., Banks, G. C., Story, P. A., & White, C. D. (2015). A meta-analytic test of redundancy and relative importance of the dark triad and five-factor model of personality. *Journal of personality*, 83(6), 644-664.
- Paulhus, Delroy L. "Normal narcissism: Two minimalist accounts." *Psychological Inquiry* 12.4 (2001): 228-230.
- 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.
- 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.
- Pincus, A. L., & Lukowitsky, M. R., (2010). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology*, 6, 421-446.
- Rhodewalt, F., Madrian, J. C., & Cheney, S. (1998). Narcissism, self-knowledge organization, and emotional reactivity: The effect of daily experiences on self-esteem and affect. *Personality and Social Psychology Bulletin*, 24(1), 75-87.
- Ronningstam, E. (2009). Narcissistic Personality Disorder: Facing DSM-V. *Psychiatric Annals*, 39(3), 111–121.
- 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.
- RStudio Team (2021). RStudio: Integrated Development for R. RStudio, PBC, Boston, MA URL <http://www.rstudio.com/>.
- Ringwald, W. R., Forbes, M. K., & Wright, A. G. (2021, January 16). Meta-analysis of structural evidence for the Hierarchical Taxonomy of Psychopathology (HiTOP) model.
- Ringwald, W.R., Hallquist, M.N., Dombrovski, A.Y., Wright, A. G. C. (in press). Personality (Dys)Function and General Instability.
- Ringwald, W. R., Hallquist, M., Dombrovski, A., & Wright, A. G. (2021, January 25). Transdiagnostic associations with interpersonal and affective variability in borderline personality pathology.
- Ringwald, W. R., Hopwood, C. J., Pilkonis, P. A., & Wright, A. G. (2020). Dynamic features of affect and interpersonal behavior in relation to general and specific personality pathology. (2020). *Personality Disorders*, 12(4), 365–376.

- Schoenleber, M.J. Roche, E. Wetzel, A.L. Pincus, B.W. Roberts. (2015) Development of a brief version of the Pathological Narcissism Inventory. *Psychological Assessment*, 27, 1520-1526.
- Sedikides, C., Rudich, E. A., Gregg, A. P., Kumashiro, M., & Rusbult, C. (2004). Are normal narcissists psychologically healthy?: Self-esteem matters. *Journal of Personality and Social Psychology*, 87(3), 400–416
- Sharp, C., Wright, A. G., Fowler, J. C., Frueh, B. C., Allen, J. G., Oldham, J., & Clark, L. A. (2015). The structure of personality pathology: Both general ('g') and specific ('s') factors?. *Journal of abnormal psychology*, 124(2), 387–398.
- Sharpe, J. P., Martin, N. R., & Roth, K. A. (2011). Optimism and the Big Five factors of personality: Beyond neuroticism and extraversion. *Personality and Individual Differences*, 51(8), 946-951.
- 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.
- Simms, L. J., Goldberg, L. R., Roberts, J. E., Watson, D., Welte, J., & Rotterman, J. H. (2011). Computerized adaptive assessment of personality disorder: Introducing the CAT–PD project. *Journal of personality assessment*, 93(4), 380-389.
- Soyster, P. D., Bosley, H. G., Reeves, J. W., Altman, A. D., & Fisher, A. J. (2019). Evidence for the feasibility of person-specific ecological momentary assessment across diverse populations and study designs. *Journal for Person-Oriented Research*, 5(2), 53.
- Tackett, J. L., Lahey, B. B., van Hulle, C., Waldman, I., Krueger, R. F., & Rathouz, P. J. (2013). Common genetic influences on negative emotionality and a general psychopathology factor in childhood and adolescence. *Journal of Abnormal Psychology*, 122(4), 1142–1153
- Velotti, Rogier, G., & Sarlo, A. (2020). Pathological narcissism and aggression: The mediating effect of difficulties in the regulation of negative emotions. *Personality and Individual Differences*, 155, 109757–.
- Watson, D., & Clark, L. A. (1999). The PANAS-X: Manual for the positive and negative affect schedule-expanded form.
- Werner, K. H., Goldin, P. R., Ball, T. M., Heimberg, R. G., & Gross, J. J. (2011). Assessing emotion regulation in social anxiety disorder: The emotion regulation interview. *Journal of psychopathology and behavioral assessment*, 33(3), 346-354.
- Wright, A. G. C., & Besser, A. (Ed.) (2014). Handbook of psychology of narcissism: Diverse perspectives. Hauppauge, NY: Nova Science Publishers.
- Wright, A. G. C., & Edershile, E. A. (2018). Issues resolved and unresolved in pathological narcissism. *Current Opinion in Psychology*, 21, 74–79.

- Wright AG, Simms LJ. Stability and fluctuation of personality disorder features in daily life. *J Abnorm Psychol.* 2016 Jul;125(5):641-56.
- Wright, A. G. C., & Simms, L. J. (2014). On the structure of personality disorder traits: Conjoint analyses of the CAT-PD, PID-5, and NEO-PI-3 trait models. *Personality Disorders: Theory, Research, and Treatment*, 5(1), 43-54.
- 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.
- Wright, A. G. C., Stepp, S. D., Scott, L. N., Hallquist, M. N., Beeney, J. E., Lazarus, S. A., & Pilkonis, P. A. (2017). The effect of pathological narcissism on interpersonal and affective processes in social interactions. *Journal of Abnormal Psychology*, 126(7), 898-910.
- Wright, A. G. C., Stepp, S. D., Scott L. N., Hallquist, M. N., Beeney, J. E., Lazarus, S. A., & Pilkonis, P. A. (2017). The effect of pathological narcissism on interpersonal and affective processes in social interactions. *Journal of Abnormal Psychology*, 126(7), 898-910
- Zeigler-Hill, V., Clark, C. B., & Pickard, J. D. (2008). Narcissistic subtypes and contingent self-esteem: Do all narcissists base their self-esteem on the same domains? *Journal of Personality*, 76(4), 753-774