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Narcissism and Hypomania Revisited: a Test of the Similarities and Differences in Their Empirical Networks

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Abstract The goal of the present research was to clarify the relationship between narcissism and hypomania, both of which are multidimensional in nature. More specifically, this study examines the relations between two narcissism dimensions (grandiose and vulnerable) and three hypomania dimensions (social vitality, mood volatility, and excitement) in relation to adverse developmental experiences, affective experiences, a multidimensional model of impulsivity, and general personality traits. The absolute similarities across the patterns of correlations manifested by the narcissism and hypomania subscales were then examined. Like the multidimensionality found in narcissism in which grandiose and vulnerable narcissism manifest unrelated or negatively related empirical networks, the same was true for the hypomania dimensions. Grandiose narcissism manifested substantially similar empirical profiles with the hypomania components of social vitality and, to a lesser extent, excitement. Conversely, vulnerable narcissism manifested a profile quite similar to a third hypomania component – mood volatility. These findings are discussed in the context of the difficulty in developing robust and coherent research literatures when using multidimensional total scores for either narcissism or hypomania.

Keywords Narcissism · Grandiose narcissism · Vulnerable narcissism · Hypomania

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Narcissism is a relatively stable personality construct (Orth & Luciano 2015), characterized by a grandiose and inflated self-concept, a lack of empathy and caring in close relationships and use of self-enhancement strategies like attention seeking, bragging and selective credit taking (Campbell & foster 2007; Campbell et al. 2011; Morf & Rhodewalt 2001). In terms of general personality traits, narcissism is primarily characterized by low levels of agreeableness and high levels of extraversion (O'Boyle et al. 2015). From a more dynamic perspective narcissistic individuals see themselves as special or unique and strive for admiration and power sometimes at the expense of others (Morf & Rhodewalt 2001) and/or by exploiting others (Campbell 1999). This strategy often proves successful and self-reinforcing in the short term, but these strategies can lead to maladaptive personal and interpersonal outcomes in the long-term (Campbell & Campbell 2009; Miller et al. 2007).

More recently, narcissism has been conceptualized and assessed using a multidimensional framework in which two distinct dimensions are recognized: *grandiose* and *vulnerable* (Cain et al. 2008; Miller et al. 2011a, b). In terms of general personality traits, these dimensions overlap primarily with regard to their shared disagreeableness; they diverge, however, with regard to neuroticism (grandiose: low; vulnerable: high), extraversion (grandiose: high; vulnerable: low), and conscientiousness (grandiose: high; vulnerable: low). There are also significant differences in these narcissistic dimensions' broader nomological networks. For instance, vulnerable narcissism is more likely to be associated with negative etiological antecedents such as childhood abuse and maladaptive attachment orientations, current negative mood symptoms like anxiety and depression (Dickinson & Pincus, 2003; Miller et al. 2010; Miller et al. 2011a, b) and psychological treatment seeking

(Pincus et al., 2009). In contrast, grandiose narcissism is largely unrelated to adverse developmental events and is related to secure attachment styles, positive affectivity, and high self-esteem. Individuals high on grandiose narcissism are less likely to seek treatment and are drawn to contexts that offer attention and acclaim such as celebrity and leadership (Brunell et al. 2008; Young & Pinsky, 2006).

Narcissism, particularly its grandiose form, demonstrates conceptual and empirical overlap with another psychological/psychiatric construct – *hypomania*. Hypomania is characterized by elevated and sustained levels of energy, ideas of grandeur, psychological expansivity, irritability, and sensation seeking. As the name implies, hypomania is considered a milder and less impairing form of mania (Dilsaver et al. 1999), which is the defining feature of bipolar disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013). In a longitudinal study (Kwapil et al. 2000), college students with elevated levels of hypomania were more likely to develop bipolar disorder, indicating that hypomania is an important risk factor for the development of bipolar disorder.

From a personality perspective, hypomania is negatively related to agreeableness (Fulford et al. 2008; Sellbom et al. 2008) with more variable findings for the other domains and lower-order facets of the FFM across studies. For instance, Meyer (2002) found hypomania to be significantly related to the personality traits openness and extraversion and unrelated to the remaining three domains of agreeableness, conscientiousness, and neuroticism. Conversely, Sellbom et al. (2008) found that of the Big Five, hypomania was only related to the domain (and most facets) of agreeableness (e.g., demonstrating negative correlations with the agreeableness total score, and the facets of trust, straightforwardness, compliance, modesty). Hypomania also manifested significant positive relations with three facets of neuroticism (i.e., anger, hostility, impulsiveness), one facet of extraversion (i.e., excitement seeking), and a significant negative relation with one facet of conscientiousness (i.e., deliberation).

Articulating the correlates of hypomania is made difficult by the possibility that, like narcissism, it is a multidimensional construct, at least when measured by the commonly used Hypomanic Personality Scale (HPS; Eckblad & Chapman, 1986). Schalet et al. (2011) used multiple analytic strategies to examine the structure of the HPS and reported convergence across methods for a 3 factor solution that measured mood volatility (negative and unpredictable mood states and hypomanic cognition), excitement (energetic and highly cheerful mood), and social vitality (social potency and vivaciousness). In the Schalet et al. analyses, the three factors were moderately correlated with one another with correlations ranging from .35 (social vitality – mood volatility) to .52 (excitement – mood volatility). Notably, these hypomania components manifested correlations with basic personality traits (e.g., positive and negative emotionality; constraint; openness) that diverged in important ways, which led Schalet and colleagues to "suggest that analyses based on HPS total scores should be interpreted very cautiously" (p. 516). This warning against the use of the total score for the HPS is consistent with calls for the use of more homogeneous and unidimensional construct measures in order to move towards a more valid and useful understanding of psychopathology (Smith et al. 2009).

Clearly hypomania and narcissism share some meaningful traits. In fact, narcissistic tendencies are elevated in individuals with bipolar disorder (Brieger et al. 2003; Torgersen et al. 2001). Further, individuals with bipolar disorder are more likely to be diagnosed with NPD during their manic states (Stormberg et al. 1998). Despite these similarities between grandiose narcissism and hypomania, however, there has been little research addressing their overlap and none that examines both narcissism and hypomania using a more fine-grained assessment of the respective constructs. Fulford et al. (2008) proposed that the overlap between hypomania and narcissism relates to three shared characteristics: approach related affect, goal pursuit, and impulsivity. In a sample of undergraduates, self-reported narcissism and hypomania were both related to higher levels of positive emotions following successful goal directed behavior, increased levels of sensation and fun seeking, higher levels of hostility and anger, and lower levels of trait agreeableness. Additionally, both traits were related to overgeneralizing one's ability after a small success (e.g., believing someone is romantically interested simply because they smiled at you). Together, these results suggest that narcissism and hypomania share communalities in approach-related dysregulation in affect and goal regulation. However, narcissism and hypomania also demonstrated important differences in their findings; most notably, hypomania was more strongly related to impulsivity. Specifically, individuals high in hypomania demonstrated lower levels of self-control, leaving them more likely to act on impulse than narcissistic participants.

Narcissism and Hypomania: The Present Research

In order to better understand the similarities and differences between narcissism and hypomania, we examine their empirical associations with a wide array of relevant criteria including (a) adverse developmental experiences, (b) affect, (c) impulsivity, and (d) basic personality traits (i.e., FFM). We also expand on previous analyses by examining both grandiose and vulnerable narcissism, consistent with recent calls (Cain et al. 2008; Miller & Campbell, 2008) for delineation between these two dimensions that demonstrate widely varying and largely unrelated empirical networks (Miller et al., 2011a, b). Second, in addition to examining hypomania as a single scale,

we examine the individual factors of hypomania that provides a more nuanced view of the construct (Schalet et al. 2011). Third, we use informant-reports of personality in addition to self-reports to examine the degree to which these personality profiles are similar across constructs and reporters.

Based on the work of Fulford et al. (2008), we predicted that grandiose narcissism and hypomania would share similar profiles including traits related to increased energy, grandiosity, and sensation seeking. Conversely, we predicted that narcissism and hypomania would differ with regards to impulsivity-related traits beyond sensation seeking. Finally, we predicted that the relationship between hypomania and narcissism would become clearer when considering both constructs using more nuanced, fine grained distinctions within both narcissism and hypomania. Specifically, we predicted that the facets of hypomania linked to negative emotionality and affective instability would overlap substantially with aspects of vulnerable narcissism (i.e., higher levels of neuroticism, low levels of extraversion, and higher levels of negative affect), whereas grandiose narcissism would demonstrate more overlap with the social vitality and excitement seeking components of hypomania.

We use two general approaches to data analyses. First, following Fulford et al. (2008) we examine and compare bivariate correlations between narcissism, hypomania and various external criteria (e.g., self-reported development, informant-reported personality traits). Because of the number of tests, we used a more conservative p-value of $\leq .01$ and focus on patterns of findings rather than specific comparisons. Finally, we do not test every possible difference in correlations across all of these constructs (i.e., 2 narcissism scores; 4 hypomania scores), which would result in a very substantial number of tests. In order to conduct a more formal test of the similarity of the correlations manifested by the hypomania and narcissism scales with the various criteria, we use a profile matching technique to quantify the absolute similarity of the empirical networks derived from narcissism and hypomania. Specifically, we use a double-entry q intraclass correlation (ICC_{DE}) analysis, which produces "similarity scores" between variables of interest (see McCrae, 2008, for a review and Furr, 2010 for a critique). The ICC_{DE} estimates the absolute similarity of empirical profiles (i.e., sets of correlations) manifested by two or more variables with criteria of interest (see McCrae, 2008 for a review of this and other profile matching indices). In other words, we investigated, for example, the degree to which mood volatility and vulnerable narcissism manifested similar absolute patterns of correlations with the external criteria used here. This approach allows for the quantification of absolute similarities of the correlates of the narcissism and hypomania dimensions examined in the current study.

Method

Participants

The sample consisted of 343 undergraduates who participated in research for class credit at a large southeastern university. Participants were asked to provide the email address of a parent who could be contacted in order to solicit parent-report information on the participants' personality traits. After the participants completed the self-report aspect of the study, the parents were emailed and asked to verify their parental status of the participant. Following this validation, the parents were asked to report on the participants' personality using the NEO-Five Factor Inventory described below (NEO-FFI; Costa & McCrae, 1992). This procedure was approved by the University's Institutional Review Board.

Sixty percent of the sample was male, 79.6 % Caucasian, and the mean age was 19.24 (SD = 1.43). Of the participants, 70 % provided parent informant-reports. Individuals with and without parent-reports were compared across age, sex, race, grandiose narcissism, vulnerable narcissism, and the hypomania domains. Individuals without parent reports scored higher on the hypomania composite score (d = .41), higher on mood volatility (d = .35), and higher on excitement (d = .43) than individuals without parent-reports. Participants with a history of bipolar disorder or psychotic symptoms in general were excluded from the sample.

Measures

Narcissism Measures Grandiose narcissism was measured with the *Narcissistic Personality Inventory* (NPI-16; Ames et al. 2006), a 16-item version of the Narcissistic Personality Inventory (Raskin & Terry, 1988). The NPI-16 manifests good convergent (Miller et al., 2013) and criterion validity (Miller et al. 2014a, b). Coefficient alpha was .74 in the current study. Vulnerable narcissism was measured using the *Hypersensitive Narcissism Scale* (HSNS; Hendin & Cheek, 1997), a 10-item self-report scale. Coefficient alpha in the current study was .67.

Hypomania Hypomania was measured with the *Hypomanic Personality Scale* (*HPS*; Eckblad & Chapman, 1986). The scale consists of 48 self-report items and was developed to assess the risk of bipolar spectrum disorders. The HPS has shown good internal consistency and test-retest reliability (Eckblad & Chapman, 1986). Recent research suggests that the HPS consists of three factors labeled social vitality (22 items), mood volatility (15 items), and excitement (11 items; Schalet et al. 2011). These are used in the current study. Coefficient alpha for the total HPS scale in this study was .87. Coefficient alpha for the subscales were .81, .76, and .68 for social vitality, mood volatility, and excitement, respectively.

Adverse Development Experiences Adverse experiences were measured using two scales. First, abuse was assessed using the *Home Environment Questionnaire* (HEQ). The HEQ (Sines et al. 1984) consists of 38 self-report items. The scale was developed to assess the prevalence of abuse during the individual's childhood. There are four subscales included in this measure: physical abuse (4 items), verbal abuse (3 items), sexual abuse (3 items) and emotional abuse (4 items). After reviewing descriptive statistics for these variables (i.e., skewness and kurtosis), both the physical abuse and sexual abuse variables were square root-transformed to normalize their distributions. These transformed variables were used throughout the analyses. Coefficient alphas for this study ranged from .70 to .80.

Second, parenting styles were assessed using the *Parenting Warmth and Monitoring Scale* (PWMS; Lamborn et al. 1991). The PWMS assesses the types of parenting styles the individual received during childhood. Coefficient alphas in the current study were .77 (parental warmth, 13 items) and .79 (parental monitoring, 11 items).

Affect Measures Affect was measured using three scales. The first scale, used to assed general affect, was the *Positive and Negative Affect Schedule* (PANAS-X; Watson et al. 1988), which can be scored to assess positive and negative affect scales as well as more narrow affective experiences. In the current study, only the positive and negative affect dimensions were used consisting of 10 items each (coefficient alphas of .85 and .84, respectively).

Second, affective intensity was measured using the *Affective Intensity Scale* (AIM; Larsen & Diener, 1987). The AIM is a 40-item self-report scale with three subscales: positive affect (8 items), negative affect (6 items), and serenity (6 items). Items on this scale capture intensity of reactions to emotional and provoking prompts of various intensities. The positive and negative subscales capture the intensity or extremity of emotional reactions to either positive or negative prompts; whereas the serenity subscale captures the extent to which an individual is calm or unaffected by the emotionally provoking prompts. It has shown good internal consistency and test-retest reliability (Larsen & Diener, 1987). Coefficient alphas for this study were .81, .81, and .92, for the serenity, positive affect, and negative affect subscales respectively.

The third affect measure was the *Affective Lability Scale* (ALS). The ALS (Harvey et al. 1989) is a 54-item self-report scale. The ALS is a commonly used measure of affective instability that measures variability of state level affect (e.g., "One minute I can be feeling O.K. and the next minute I am tense, jittery and nervous"). For our purposes, only the composite score was used. The ALS has proven to demonstrate good internal consistency and reliability (Harvey et al., 1989). Coefficient alpha for this study was .96.

Impulsivity Measures Impulsivity was measured with the *UPPS Impulsive Behavior Scale* (UPPS-R; Lynam et al. 2006; Whiteside & Lynam, 2001) is a 59-item self-report measure designed to assess five impulsivity-related traits. The five traits include positive urgency (14 items), negative urgency (12 items; i.e., behaving in a risky and impulsive manner in the face of heightened emotionality), lack of premeditation (11 items; i.e., not thinking about consequence before acting), lack of perseverance (10 items; i.e., inability to persist through difficult tasks or situations), and sensation seeking (12 items; i.e., pursuing experiences that are novel and/or risky for pleasure and thrill). The coefficient alphas in the current study ranged from .82 to .92.

Personality Basic personality as conceptualized with the FFM as measured by the NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992). Thus is a 60-item self-report inventory that captures five dimensions of personality: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. In general, the NEO-FFI demonstrates good internal consistency and reliability (Fields, 2002). Coefficient alphas in this study ranged from .74 to .86 for self-report, and .57 to .90 for parent-report.

Results

Descriptive Statistics

We began our analysis with descriptive statistics for the outcome variables of interest: narcissism, including both vulnerable (i.e., HSNS) and grandiose (i.e., NPI), and hypomania, including the three subscales of hypomania (e.g., social vitality, mood volatility, and excitement). All six variables (i.e., NPI, HSNS, HPS total, and the subscales of hypomania) were normally distributed. The means and standard deviations for these variables can be found in Table 1. Because of the number of correlations examined, $p \leq .01$ was used as our criterion for statistical significance.

Correlational Analyses

First, we examined the basic interrelations among the various forms of narcissism and hypomania (Table 1). Grandiose narcissism, as measured by the NPI, was significantly associated with the hypomania total score and two of the three subscales: social vitality and excitement. The largest of these correlations was with the subscale of social vitality. Vulnerable narcissism, as measured by the HSNS, was significantly related to the hypomania total score as well, although with a smaller effect size. The relation between vulnerable narcissism and hypomania appeared to be driven entirely by its relation with the subscale of mood volatility. The three hypomania subscales

Table 1 Interrelations among narcissism and hypomania subscales

	M	*SD*	NPI	HSNS	HPS Total	HPS SV	HPS MV	HPS E
NPI	5.35	3.30	-					
HSNS	26.59	5.55	−.01	-				
HPS Total	19.29	8.34	.45*	.17*	-			
SV	9.13	4.62	.60*	.00	.81*	-		
MV	6.30	3.38	.10	.35*	.76*	.32*	-	
E	4.12	2.54	.27*	.04	.77*	.45*	.52*	-

*$p \leq .01$. NPI = Narcissistic Personality Inventory; HSNS = Hypersensitive Narcissism Scale; HPS Total = Hypomanic Personality Scale; HPS SV = social vitality subscale of the Hypomanic Personality Scale; HPS MV = mood volatility subscale of the Hypomanic Personality Scale; HPS E = excitement subscale of the Hypomanic Personality Scale

manifested moderate to large correlations with one another, ranging from .32 to .52.

Narcissism, Hypomania, and Adverse Developmental Experiences

Next, we examined the correlations between these traits and adverse developmental factors, including childhood abuse and parenting styles (Table 2). Grandiose narcissism was unrelated to parental warmth and monitoring, as well as the four childhood abuse and maltreatment variables. Conversely, vulnerable narcissism was significantly negatively related with parental monitoring and positively related with verbal, sexual and emotional abuse; all of these correlations were small, however. The hypomania total score was unrelated to the two parenting variables and significantly positively related to the sexual and emotional abuse variables. Notably, however, these correlations were small and driven primarily by the mood volatility subscale, as it was the only HPS subscale that was significantly positively associated with any of the abuse variables. These relations were small with significant correlations ranging from .17 to .23.

Narcissism, Hypomania, and Affective Experiences

We next examined the relations between hypomania, narcissism, and affective experience (see Table 3). Grandiose narcissism manifested small positive correlations with positive affect and positive affective intensity and small negative correlations with negative affective intensity, serenity, and affective lability. Conversely, vulnerable narcissism manifested significant positive correlations with negative affect, negative affective intensity, and affective lability. The hypomania total score mostly mirrored the findings for grandiose narcissism in that it manifested significant positive correlations with positive affect, positive affective intensity, and a significant negative correlation with serenity. The only difference is that the HPS was significantly positively correlated with affective instability, whereas grandiose narcissism was significantly negatively related to this construct. The correlations manifested by the total HPS masked important divergences across the HPS subscales. Although all three were significantly correlated with positive affective intensity, the mood volatility scale was unrelated to positive affect and significantly related to negative affect – a pattern opposite of that found for the HPS social vitality and excitement scales. Similarly, HPS mood volatility was the only subscale related to affective instability (i.e., $r = .55$).

Table 2 Relations between narcissism and hypomania subscales and adverse developmental experiences

	NPI	HSNS	HPS Total	SV	MV	E
Parenting						
Warmth	.06	−.13	−.03	.01	−.12	.04
Monitoring	−.11	−.17*	−.03	−.04	−.10	.10
Abuse						
Physical	−.04	.12	.10	.04	.16	.05
Verbal	−.02	.14*	.13	.06	.17*	.10
Sexual	.06	.20*	.16*	.08	.22*	.06
Emotional	−.06	.20*	.15*	.07	.23*	.08

*$p \leq .01$. NPI = Narcissistic Personality Inventory; HSNS = Hypersensitive Narcissism Scale; HPS Total = Hypomanic Personality Scale; SV = social vitality subscale of the Hypomanic Personality Scale; MV = mood volatility subscale of the Hypomanic Personality Scale; E = excitement subscale of the Hypomanic Personality Scale

Table 3 Relations between narcissism and hypomania subscale and affective experiences

	NPI	HSNS	HPS Total	SV	MV	E
Affect						
Positive Affect	.22*	−.13	.21*	.28*	.03	.16*
Negative Affect	−.05	.24*	.07	.00	.15*	.01
Affective Intensity						
Positive	.20*	−.09	.43*	.24*	.29*	.53*
Negative	−.26*	.23*	.05	−.18*	.28*	.06
Serenity	−.17*	.00	−.22*	−.16*	−.11	−.27*
Affective Lability	−.16*	.39*	.26*	−.02	.55*	.11

*$p \leq .01$. NPI = Narcissistic Personality Inventory; HSNS = Hypersensitive Narcissism Scale; HPS Total = Hypomanic Personality Scale; SV = social vitality subscale of the Hypomanic Personality Scale; MV = mood volatility subscale of the Hypomanic Personality Scale; E = excitement subscale of the Hypomanic Personality Scale

Narcissism, Hypomania, and Impulsivity-Related Traits

Next, we examined the relations between narcissism dimensions, hypomania dimensions, and a multi-dimensional model of impulsivity (Table 4). As expected, grandiose narcissism was largely unrelated to the impulsivity-related traits and vulnerable narcissism was related only to the two impulsivity traits that involve behavioral impulsivity in the face of negative and positive affective dysregulation. Conversely, hypomania manifested more consistent positive relations with the impulsivity scales. All three HPS scales were related to a lack of premeditation and sensation seeking. In addition, both mood volatility and excitement were significantly positively related to the positive and negative urgency scales.

Narcissism, Hypomania, and Self- and Informant-Reported Personality

Next, we examined the relationships between hypomania, narcissism, and Five-Factor Model (FFM) personality traits across self and informant-reports (Table 5). We also calculated double-entry q-correlations to test the degree to which the self and informant-reported FFM profiles were consistent for the narcissism and hypomania dimensions. In general, the self and informant-reported profiles were quite consistent with intraclass correlations ranging from .79 (HPS Total) to .85 (NPI). Although there were some differences in effect sizes and statistical significance, grandiose narcissism was generally positively associated with extraversion (self and informant) and negatively correlated with neuroticism (self only) and agreeableness (self only). Vulnerable narcissism was generally positively related to neuroticism (self and informant), and negatively related to extraversion (self and informant), agreeableness (self only), and conscientiousness (self only). The total hypomania score was positively related to extraversion (self and informant) and openness (self and informant). The personality profile associated with hypomania varied across the HPS subscales, however. HPS social vitality was predominantly associated with extraversion (self and informant) and openness (self only). HPS mood volatility was most strongly positively associated with neuroticism (self and informant) and openness (self and informant) and negatively related to conscientiousness (self only) and agreeableness (self only). HPS excitement was only significantly positively related to extraversion (self and informant).

Profile Matching

As a final examination of the overlap between narcissism and hypomania dimensions, we quantified their empirical networks using a double-entry-q intraclass correlation (ICC_{DE}). These correlations test the absolute agreement across the 27 correlates with the nomological network criteria reported for the narcissism and hypomania dimensions in Tables 2 through 5 (see Table 6).

Table 4 Relations between narcissism and hypomania subscale and impulsivity

	NPI	HSNS	HPS Total	SV	MV	E
Impulsivity						
Negative Urgency	−.01	.27*	.21*	.07	.29*	.16*
Positive Urgency	.01	.21*	.24*	.12	.28*	.16*
Lack of Premeditation	.09	.01	.26*	.17*	.19*	.29*
Lack of Perseverance	−.12	.09	.04	−.07	.13	.07
Sensation Seeking	.11	.08	.25*	.20*	.19*	.18*

*$p \leq .01$. NPI = Narcissistic Personality Inventory; HSNS = Hypersensitive Narcissism Scale; HPS Total = Hypomanic Personality Scale; SV = social vitality subscale of the Hypomanic Personality Scale; MV = mood volatility subscale of the Hypomanic Personality Scale; E = excitement subscale of the Hypomanic Personality Scale

Overall, grandiose narcissism's profile was significantly negatively correlated with vulnerable narcissism (ICC_{DE} = −.43, positively related to the HPS social vitality (ICC_{DE} = .80) and HPS excitement (ICC_{DE} = .40) scales, marginally positively related (i.e., .01 < p < .05) with the profile for the HPS total score (ICC_{DE} = .34), and unrelated to the HPS mood volatility subscale (ICC_{DE} = −.24). Conversely, vulnerable narcissism's profile was unrelated to the HPS total profile (ICC_{DE} = .11) and negatively but nonsignificantly correlated with two of the three HPS scales: social vitality (ICC_{DE} = −.33) and excitement (ICC_{DE} = −.32). It was, however, significantly and substantially correlated with the HPS mood volatility subscale (ICC_{DE} = .76). The HPS scales themselves manifested only partially converging profiles such that social vitality's profile was significantly correlated with excitement (ICC_{DE} = .70) but neither were correlated with the profile derived from HPS mood volatility (ICC_{DE} = .04 and .24, respectively).[1]

Discussion

The aim of the present research was to examine the relations between narcissism and hypomania using an assessment approach that recognizes the multidimensional nature of both constructs. As such, we examined both grandiose and vulnerable narcissism as well as different facets of hypomania in relation to an array of criterion variables from different domains including adverse developmental experiences, affective

[1] A fair amount of research has been dedicated to uncovering gender differences in trait narcissism (Grijalva et al., 2015). Given interest in this topic, we tested the overall correlational profiles for narcissism in both men and women across criteria. Overall, men and women demonstrated highly similar narcissism profiles (ICC_{DE} = .81, p < .001).

Table 5 Relations between narcissism, hypomania subscales, and general personality

	NPI		HSNS		HPS Total		SV		MV		E	
Five Factor Model	S	I	S	I	S	I	S	I	S	I	S	I
Neuroticism	−.29*	−.16	.45*	.28*	.07	.03	−.17*	−.12	.40*	.23*	−.03	−.03
Extraversion	.26*	.25*	−.29*	−.23*	.41*	.22*	.39*	.26*	.09	−.04	.52*	.30*
Openness	.06	.03	.07	.10	.28*	.18*	.30*	.12	.24*	.22*	.10	.09
Agreeableness	−.25*	−.11	−.38*	−.13	−.15*	−.04	−.12	−.05	−.26*	−.09	.06	.06
Conscientiousness	.12	.01	−.14*	−.08	−.07	−.06	.07	.02	−.25*	−.17	−.04	−.01
Self-informant agreement (ICC_{DE})	.85*		.84*		.79*		.83*		.83*		.83*	

*$p \leq .01$. S = Self-report FFM scores; I = Informant-report scores. ICC_{DE} = Double-entry intraclass correlation. NPI = Narcissistic Personality Inventory; HSNS = Hypersensitive Narcissism Scale; HPS Total = Hypomanic Personality Scale; SV = social vitality subscale of the Hypomanic Personality Scale; MV = mood volatility subscale of the Hypomanic Personality Scale; E = excitement subscale of the Hypomanic Personality Scale. $N_{self\text{-}reports} = 343$ $N_{parent\text{-}reports} = 105$

experiences, impulsivity-related traits, and general FFM traits as measured both by self and informant-reports.

Overall, several key relations are apparent. As expected, grandiose narcissism and hypomania show a moderately similar nomological network ($ICC_{DE} = .34$), but there was not a significant relation between the profiles associated with vulnerable narcissism and hypomania ($ICC_{DE} = .11$). Both grandiose narcissism and hypomania were related to positive affectivity, positive affective intensity, extraversion, and disagreeableness. These general findings, however, masked a more nuanced pattern of relations between narcissism and the subscales of hypomania. This complexity was apparent when examining the profiles associated with the hypomania subscales in relation to the two narcissism dimensions. From this perspective, two distinct patterns become apparent: (a) grandiose narcissism and social vitality (and, to a lesser extent excitement) manifested substantially overlapping empirical networks, and (b) vulnerable narcissism and mood volatility manifested substantially overlapping networks. Specifically, the profile associated with grandiose narcissism was highly similar to that derived from social vitality ($ICC_{DE} = .80$), moderately similar with excitement's profile ($ICC_{DE} = .40$) but unrelated to mood volatility ($ICC_{DE} = -.24$). The measures of grandiose narcissism and social vitality were generally unrelated to self-reports of adverse developmental experiences, positively related to positive affect (and diminished negative affect), and positively related to extraversion. Where the two differed, they did so primarily in degree rather than kind (i.e., differences were in the strength of relations rather than direction). Both grandiose narcissism and the HPS subscales social vitality and excitement have some components and correlates often seen as adaptive (e.g., Schalet et al., 2011) along with aspects often seen as less adaptive such as disagreeableness (grandiose narcissism) and impulsivity (social vitality).

Table 6 Double-entry (ICC_{DE}) intraclass correlations among narcissism and hypomania profiles

	NPI	HSNS	HPS Total	SV	MV	E
NPI	-					
HSNS	−.43*	-				
HPS Total	.34	.11	-			
SV	.80*	−.33	.71*	-		
MV	−.24	.76*	.63*	.04	-	
E	.40*	−.32	.83*	.70*	.24	-

*$p \leq .01$. NPI = Narcissistic Personality Inventory; HSNS = Hypersensitive Narcissism Scale; HPS Total = Hypomanic Personality Scale; SV = social vitality subscale of the Hypomanic Personality Scale; MV = mood volatility subscale of the Hypomanic Personality Scale; E = excitement subscale of the Hypomanic Personality Scale

In contrast, vulnerable narcissism's profile with the external criteria was strongly related to mood volatility's profile ($ICC_{DE} = .76$) and negatively but nonsignificantly related to social vitality's and excitement's profiles ($ICC_{DE} = -.33$ and $-.32$). As measured here, both vulnerable narcissism and the mood volatility piece of hypomania were generally related to retrospective reports of adverse development experiences (e.g., abuse; maltreatment), negative affect, affective lability, and behavioral dysregulation (i.e., positive and negative urgency; see also Fulford et al. 2015). In personality terms, the overlap between vulnerable narcissism and the mood volatility component of hypomania primarily reflects shared links with neuroticism, disagreeableness, and disinhibition. The two did differ in that HPS mood volatility was related to intense positive affectivity, broader difficulties with impulse-control difficulties, and greater trait openness. Again, however, these were primarily differences of degree rather than kind. In general, both vulnerable narcissism and the mood volatility components of hypomania are primarily composed of traits traditionally seen as maladaptive in nature, including correlations with state and trait negative affect and distress, emotional lability, disinhibited behavior,

and interpersonal disagreeableness. These findings were reinforced when considering parent-report data.

The current findings both replicate and extend previous findings by using a broader array of criteria with which to compare the constructs, including self and informant report data on a widely used, comprehensive model of personality, and a more individuated examination of both narcissism and hypomania. For instance, Fulford et al. (2008) found that narcissism and hypomania share some critical features with regard to affect and personality. First, they found that both narcissism and hypomania were related to low levels of agreeableness, which was replicated in this study, at least with regard with self-reported agreeableness. This is not the only trait they share, however, as our findings suggest important similarities with regard to extraversion as well – a domain not explored by Fulford et al. In addition, the overlap between narcissism and hypomania becomes more complex when one examines different aspects of both construct. Second, we also replicated and extended Fulford and colleague's results regarding affect: both narcissism and hypomania share similar relationships with positive approach related affect. The two differ in important ways, however, with regard to mood instability, which is a core component of hypomania as measured by the HPS but is generally negatively related to grandiose narcissism. Finally, with regards to impulsivity, we again found results similar to Fulford and colleagues in which hypomania was more generally associated with impulsivity (i.e., lack of cognitive control) than narcissism, consistent with previous work (Miller et al., 2009).

Implications

Similar to narcissism, it is clear that hypomania, as most typically assessed with the HPS, is a multidimensional construct in which the components are only moderately correlated with one another and, more importantly, diverge in important ways. Most recently there has been a move to parse narcissism into two relatively distinct dimensions of vulnerable and grandiose narcissism, given their discrepant nomological networks (Miller et al. 2011a, b). Similarly, the use of total HPS scores to study hypomania may result in misleading or confusing results (Schalet et al., 2011) as the hypomania components manifest only partially overlapping empirical networks. This is true of hypomania's relation with narcissism in which social vitality and excitement components but not mood volatility are generally correlated with grandiose narcissism scores and manifest overlapping patterns of criterion validity. Conversely, vulnerable narcissism, which is not correlated with the total HPS score, was strongly related to one of the three individual components – mood volatility – and manifested strongly overlapping relations with the criteria used in the current study.

In general, there exist similar conceptual concerns regarding hypomania and narcissism, consistent with the findings of Fulford et al. (2008). That is, both constructs as often assessed are a blend of more extraverted and agentic components (grandiose narcissism and social vitality and excitement) and more neurotic and distressed components (vulnerable narcissism and mood volatility). As has been happening with narcissism over the past several years (e.g., Miller et al. 2014a, b; Pincus & Lukowitsky, 2010; Rosenthal & Hooley, 2010), it will be important that the field review how hypomania is conceptualized and assessed and decide whether all components are equally central to the construct and what the modest to moderate correlations among the subscales and distinct empirical profiles mean for how hypomania should be conceptualized. Previous item-level research on the HPS in relation to bipolar disorder diagnoses (Miller et al. 2011a, b) suggests that the items most strongly correlated with a bipolar diagnosis are those found on the mood volatility and excitement factors more so than the social vitality factor – the latter being the factor that most strongly overlaps with grandiose narcissism. This would suggest that the components of hypomania that overlap most strongly with prototypical conceptualizations of narcissism (i.e., grandiose) are the least potent predictors or correlates of bipolar disorder.

The current findings also contribute to important debates regarding the role of impulsivity in both narcissism and hypomania and the degree to which it may be a key distinguishing feature (e.g., Fulford et al., 2008). Although some have suggested that impulsivity is an important component of narcissism (Vazire & Funder, 2006), the current results add to a larger literature that suggests this relation is small and relatively inconsequential to the understanding of narcissism (i.e., Miller et al., 2009; O'Boyle et al., 2015). In contrast, hypomania is significantly related to impulsivity in multiple forms (e.g., Fulford et al., 2008; Fulford et al., 2015; Schalet et al., 2011) including impulsivity related to disinhibited behavior in the face of affect (e.g., urgency), difficulty considering consequence before acting, and interest and pursuit of novel and potentially risky experiences. The degree to which narcissism and hypomania may be related differentially to problematic outcomes is likely related, in part, to differences in impulse control that may be more characteristic of the latter than the former.

These findings also have some clinical implication as bipolar disorder and hypomania have proven to be very difficult disorders to diagnose accurately for several reasons (Akiskal et al., 2000). First, the definitional difference between hypomania and mania are unclear. To this point, Akiskal et al. (2000) note that, "Unfortunately, the criteria for hypomanic episodes as described in DSM-IV (1994) are insufficiently distinct from those for mania." Second, and related, the ambiguous definitions of the two constructs can lead to inaccurate diagnoses of, "less-than-manic spectrum of bipolar disorders" (Akiskal et al., 2000). Third, the degree to which hypomania is adaptive vs. maladaptive remains unclear, in part due to the ambiguous definition, the complexity of the construct, and the adequacy of the current measures to assess the construct.

It is possible that examining hypomania at the lower-order level may be advantageous in terms of developing a better understanding of the etiology, correlates, and outcomes associated with various aspects of hypomania including risk for the diagnosis of bipolar disorder (e.g., Miller et al., 2011a, b). This is consistent with a recent move away from examinations of total scores for multidimensional constructs like hypomania when it is likely that the lower-order components may have only partialling overlapping nomological networks. For example, in a longitudinal study conducted by Kwapil et al. (2000), individuals who reported higher than average levels of hypomania in their college years were at greater risk of developing bipolar disorder 13 years later. Interestingly, the individuals with high levels of hypomania who also reported poor scores on impulsivity and social conformity were at a significantly higher risk for bipolar disorder, criminal arrests and substance abuse issues. The authors report that, "The combination of hypomanic personality and nonconforming traits [i.e., poor impulse control and lack of social conformity abilities] apparently predisposes individuals to especially poor outcomes" (Kwapil et al., 2000). As such, it may be the case that different facets of hypomania put individuals at risk for the development of different disorders and life outcomes.

Limitations and Future Research

The current study relied primarily on self-reported data collected from a large sample of undergraduates in the southeast United States. Future research should examine the overlap of these constructs in more diverse clinical and community samples that might include more individuals at the extreme or "high-risk" end of the spectrum for hypomania and narcissism. In such work it would be helpful to use a measure of narcissism that can provide more fine-grained analyses of grandiose narcissism such as the Five-Factor Narcissism Inventory (Glover et al., 2012; Miller et al., 2014a, b). Unfortunately, when the NPI-40 was reduced in length to the NPI-16, the scale sacrificed the ability to assess different aspects of grandiose narcissism that are available when using the longer, parent measure (Ackerman et al., 2011). As such, we were unable to assess the relationships between the factors of grandiose narcissism with the other constructs examined in this paper. That being said, the NPI-16 generally yields trait profiles that are highly consistent with experts' conceptualizations of pathological narcissism (e.g., Miller et al. 2014b; Miller et al. 2014a) and thus is a good overall measure of grandiose narcissism. Prospective examinations of the outcomes associated with these narcissism and hypomania dimensions would be useful. In particular, it would be interesting to examine the temporal ordering of the relations between these narcissism dimensions and hypomania to test whether elevated traits on one (e.g., grandiose narcissism) might be a risk factor for another (e.g., hypomania).

Conclusions

The present study found that the relations between narcissism and hypomania differ quite dramatically depending on which narcissism and hypomania dimensions are studied. In general, grandiose narcissism and aspects of hypomania correlate similarly to a number of variables including personality, affect, impulsivity, and etiological factors. More specifically, grandiose narcissism most closely resembles the social vitality and excitement factors of hypomania. Second, vulnerable narcissism most closely resembles the mood volatility factor of hypomania in which both share correlations with adverse developmental experiences, intense and variable (mostly negative) affect, and behavioral and interpersonal dysregulation and disinhibition.

Compliance with Ethical Standards

Funding There was no funding necessary for this project. Participants received class credit for their participation.

Conflict of Interest The authors declare that they have no conflicts of interest.

Research Involving Human Participants and/or Animals All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

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

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