



Is narcissistic anger fueled by neuroticism? the relationship between grandiose and vulnerable narcissism, neuroticism, and trait anger

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Abstract

The aim of the present investigation was deeper understanding of the distinction between two types of narcissism (grandiose and vulnerable) in their relation to dispositional anger. Prior research indicated that vulnerable narcissism is associated with higher level of dispositional anger in comparison to grandiose narcissism. Furthermore, vulnerable narcissism was shown to correlate with neuroticism to a large extent. Thus, we expected that the magnitudes of correlation between vulnerable narcissism and anger will be higher than between grandiose narcissism and anger. Moreover, we hypothesized that neuroticism would mediate the relation between vulnerable narcissism and anger. In the current study we examined the relationship between two types of narcissism, neuroticism, and various aspects of dispositional anger in four independent samples ($n_s = 121\text{--}233$). The obtained results confirmed our expectations. Vulnerable narcissism association with anger was more pronounced than the correlation of anger with grandiose narcissism. Additionally, we found that neuroticism mediated the vulnerable narcissism – anger link.

Keywords Anger · Grandiose narcissism · Narcissism · Neuroticism · Vulnerable narcissism

Introduction

Two Types of Narcissism and Anger

A growing interest in narcissism as a typical, non-clinical personality trait is observed among researchers (Miller et al. 2011). Because of such characteristics of narcissism as entitlement and a tendency to disregard others, individuals scoring high on this trait are believed to be predestined for anger and aggression. Recent studies suggest, however, that narcissism is not a unitary construct and that there are two variants of narcissism: grandiose and vulnerable (Miller et al. 2010; Wink 1991). The two types of narcissism share some basic phenomena, namely the sense of entitlement, disregard for others, and grandiose self-relevant fantasies (Wink 1991; Miller et al. 2010). However, they differ in many other aspects, each of them having unique characteristics. Grandiose narcissism is characterized by an inflated positive self-image, high self-esteem, exhibitionism, attitudes of entitlement, a tendency toward self-assuredness, the need for other people's recognition and also by the need to be

admired by others (Dickinson and Pincus 2003; Miller et al. 2010; Wink 1991). Moreover, grandiose narcissism positively correlates with extraversion and negatively with neuroticism and agreeableness (Miller et al. 2010). Vulnerable narcissism, in contrast, is characterized by high hypersensitivity, vulnerability, anxiety, defensiveness, and a sense of insecurity (Miller et al. 2010; Wink 1991). Vulnerable narcissism is mostly covert and is characterized by a need for other people's recognition (validation or admiration). If this recognition is not forthcoming or is doubtful, vulnerable narcissism is related to social avoidance and withdrawal (Dickinson and Pincus 2003; Miller et al. 2010; Wink 1991). Vulnerable narcissism is positively correlated with neuroticism and negatively correlated with extraversion and agreeableness, a lower sense of self-worth, and the need for external admiration and appreciation (e.g., Dickinson and Pincus 2003; Miller et al. 2010).

Grandiose narcissism, as most recent studies show, is related to positive psychological outcomes like positive affect, high level of well-being, low levels of loneliness, sadness, depressive, and anxious feelings (e.g., Sedikides et al. 2004). Thus, grandiose narcissism does not appear to be directly related to a tendency for negative affective states, aggressive feelings, or anger. Research findings instead suggest that grandiose narcissism's inclination toward aggression is more situational than dispositional and that it is mostly linked to ego

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threat (e.g., a reaction to provocation) and ego defense mechanisms than to negative, hostile perception of others and the world in general (e.g., Bushman and Baumeister 1998).

Vulnerable narcissism as an object of psychological research has a rather short history; thus, there is not much evidence on its psychological consequences and its relation to aggressive responding. Wink (1991) found that in vulnerable narcissism the concentration on the self coexists with a hostile and defense attitude, and an increasing body of evidence suggests that this type of narcissism correlates higher with anger than the grandiose type. Krizan and Johar (2015) pointed out that research on narcissistic grandiosity using mainly the Narcissistic Personality Inventory (NPI; Raskin and Hall 1979) revealed weak or no association with chronic anger or hostility. The authors found that vulnerable narcissism was a much stronger predictor of dispositional anger than grandiose narcissism. Moreover, narcissistic vulnerability tended to highly correlate with various aspects of anger, e.g. internalization, externalization, and poor anger control. Furthermore, vulnerable (but not grandiose) narcissism amplified reactive and displaced aggression in the face of provocation. These findings were further supported by other researchers (Hart et al. 2017). In summarizing their results, Krizan and Johar (2015) suggest that people with high vulnerable narcissism have a dispositional tendency for high chronic anger, probably fueled by distrust and shame (a mix that constitutes narcissistic rage), whereas grandiose narcissists are more prone to anger and aggression when faced with strong threats to the self (e.g., public impeachments of one's ability, intelligence, or social status; Bushman and Baumeister 1998).

Anger and Neuroticism

Anger is defined as a psychobiological subjective experience which refers to an emotional state involving displeasure and increased arousal (Ramirez and Andreu 2006). Feelings of anger can vary in intensity, from mild irritation or annoyance to intense fury and rage (Spielberger 1999). Trait anger reflects one's relatively stable tendency toward experiencing feelings of anger (Spielberger 1999). This study focuses on trait anger, trying to examine its relationships with narcissism and other personality constructs.

The psychological literature provides much data on the personality correlates of anger. Typically, trait anger correlates with higher neuroticism and, to a lesser extent, with agreeableness (Bettencourt et al. 2006; Pease and Lewis 2015). Consequently, neuroticism has been most associated with experiencing anger, while low agreeableness has been argued to be associated with behavioral components of aggression (Martin et al. 2000). It has been suggested that these traits might play distinct roles in the self-regulation of anger. Specifically, Ode et al. (2008) have argued that high neuroticism facilitates "hot" aspects of anger, while high agreeableness is more related to "cool" mechanisms of anger regulation.

Neuroticism as a Possible Background for Narcissistic Anger – Overview of Current Study

Prior research shows that vulnerable narcissism is highly associated with dispositional anger and, additionally, that neuroticism might be the personality base for trait anger. In this context, interesting findings were recently provided by Miller et al. (2017), who suggested that vulnerable narcissism might be not much more than disordered neuroticism. These authors have shown that the lion's share of the vulnerable narcissism variance is explained by neuroticism (65% of the variance), and to smaller extent by agreeableness (19% of the variance). The former result is not surprising considering the fact that vulnerable narcissism is highly associated with a wide range of negative emotionality constructs, including anxiety, depression, distress, negative affect (Miller et al. 2011), and anger (Krizan and Johar 2015; Miller et al. 2011). These correlations are of similar magnitude, oscillating between 0.40 to 0.60. Likewise, neuroticism is a higher order factor, reflecting a tendency toward negative experiences in many areas of affective functioning. Interestingly, in a prominent model of personality put forward by Costa and McCrae (1992), neuroticism consists of several facets, including anxiety, depression, and anger/hostility. As Miller et al. (2017) have noted, basic personality traits may serve as organizing factors, helping to understand the nature of vulnerable narcissism. Taking into account the aforementioned findings regarding narcissism, anger, and neuroticism, one may wonder to what extent a generalized negative emotionality reflected by neuroticism accounts for the vulnerable narcissism–anger relationship.

The aim of the present studies was deeper understanding of the distinction between two types of narcissism in their relation to dispositional anger and the possible mediating role of neuroticism in the narcissism - anger association. Based on the studies of Krizan and Johar (2015), we wanted to examine whether the two types of narcissism are differentially related to various aspects of dispositional anger. We hypothesized that the magnitudes of correlations between vulnerable narcissism and anger will be higher than between grandiose narcissism and anger (H1). Because neuroticism is probably a basis for vulnerable narcissism (Miller et al. 2017), we expected that neuroticism is also main factor in explaining a strong association between vulnerable narcissism and anger (H2).

Method

Participants

We present data from four independent samples, four different studies conducted at University of Warsaw. In all cases, volunteer participants (mostly students) were recruited via publicly accessible social networking websites, all volunteering

adults were invited to take part in the studies. Upon signing informed consent, participants completed a packet of questionnaires containing a variety of self-report questionnaires and laboratory tasks. Each participant was tested in the laboratory at the University of Warsaw and was offered a small gift (worth app. 10 USD) for taking part in the study.

In sample 1 there were 121 subjects (68 female and 53 male) and their mean age was 26.98 (SD = 8.46); sample 2 consisted of 126 subjects (71 female and 55 male) with the mean age of 22.90 (SD = 2.93); in sample 3 there were 164 subjects (78 female, 74 male, and 12 subjects who did not indicate sex) with the mean age was 23.66 (SD = 3.72); sample 4 consisted of 233 (123 female and 110 male) and their mean age was 23.62 (SD = 3.79). In studies 1–4 there were the following numbers of missing values (in one or more scales): 1, 3, 2, 1, respectively. These participants were removed from further analyses. The datasets generated during and/or analysed during the current study are available at osf.io/br4uj.

Materials

Vulnerable narcissism, in all samples, was measured with the Polish version (see Czarna et al. 2014) of the Hypersensitive Narcissism Scale (HSNS; Hendin and Cheek 1997). It contains ten items answered with a five-point Likert-type scale, from 1 (*strongly disagree*) to 5 (*strongly agree*).

Grandiose narcissism, in all four samples, was assessed with the Narcissistic Personality Inventory (NPI; Raskin and Hall 1979). The validated Polish adaptation of the NPI (Bazińska and Drat-Ruszczak 2000) is composed of 34 items with a five-point response format, from 1 (*does not apply to me*) to 5 (*applies to me*).

Neuroticism, in the first, second, and fourth samples, was measured with the Polish version (Strus et al. 2014) of the 50-item set of the International Personality Items Pool (IPIP) Big Five questionnaire (Goldberg 1992). The measure has 10 items with a five-point Likert-type response format, from 1 (*very inaccurate*) to 5 (*very accurate*). In the IPIP questionnaire, neuroticism is typically labeled as emotional stability, referring to its low level. In the third sample, *neuroticism* was measured by the Ten Item Personality Inventory (TIPI; Gosling et al. 2003) in the Polish version of the TIPI (Łaguna et al. 2014). The TIPI measures each of the Big Five dimensions with two items. This measure has a seven-point Likert-type response format, from 1 (*very inaccurate*) to 7 (*very accurate*).

Anger was measured using various questionnaires across the samples. In all samples, the anger subscale from the Aggression Questionnaire (AQ) was used (Buss and Perry 1992). The scale consists of seven items with a five-point Likert-type response format. Additionally, in the second, third, and fourth sample, the trait anger subscale from the STAXI-2 (Spielberger 1999) questionnaire was used. In the

fourth sample, the STAXI-2 subscales of anger control and anger expression were added. The trait anger scale measures how often angry feelings are experienced over time. The anger expression and anger control scales assess four relatively independent anger-related traits: expression of angry feelings toward other persons or objects in the environment (Anger Expression-Out), holding in or suppressing angry feelings (Anger Expression-In), controlling angry feelings by preventing the expression of anger toward other persons or objects in the environment (Anger Control-Out), and controlling suppressed angry feelings by calming down or cooling off (Anger Control-In). The STAXI-2 scales have a four-point response format and manifest good psychometric properties.

Table 1 presents means, standard deviations, and internal consistency coefficients of all measures from four samples. Internal consistency coefficients for most of used measures were satisfying (see Table 1). Only the two-item measure of neuroticism in sample 3 had relatively low α coefficient ($\alpha = .45$). The relatively low α is natural for this two item

Table 1 Mean of sums, standard deviation and internal consistency of all measures from four samples

	M	SD	α
Sample 1			
Vulnerable narcissism	28.13	5.29	.67
Grandiose narcissism	103.28	19.95	.93
Trait anger (AQ)	19.83	5.77	.71
Emotional stability	29.74	8.01	.86
Sample 2			
Vulnerable narcissism	28.96	6.10	.72
Grandiose narcissism	98.41	17.56	.88
Trait anger (AQ)	17.58	5.21	.69
Trait anger (STAXI)	21.96	5.92	.85
Emotional stability	29.58	8.28	.90
Sample 3			
Vulnerable narcissism	29.30	5.36	.68
Grandiose narcissism	101.73	18.78	.92
Trait anger (AQ)	19.36	4.99	.71
Trait anger (STAXI)	20.72	5.47	.86
Emotional stability	9.01	2.69	.45
Sample 4			
Vulnerable narcissism	30.12	5.95	.70
Grandiose narcissism	101.60	20.23	.92
Trait anger (AQ)	18.89	6.05	.84
Trait anger (STAXI)	22.65	5.76	.80
Anger expression-out	17.54	4.01	.74
Anger expression-in	19.70	4.86	.71
Anger control-out	22.46	5.16	.88
Anger control-in	22.71	5.23	.90
Emotional stability	28.66	7.68	.87

Table 2 Correlation matrix of all measures from four samples

Sample 1	1.	2.	3.						Narcissisms' difference
1. Vulnerable narcissism	–								
2. Grandiose narcissism	.09	–							
3. Trait anger (AQ)	.26**	.04	–						$z = 1.81; p = 0.069$
4. Emotional stability	–.43**	.14	–.56**						
Sample 2	1.	2.	3.	4.					
1. Vulnerable narcissism	–								
2. Grandiose narcissism	.07	–							
3. Trait anger (AQ)	.44**	.20*	–						$z = 2.14; p = 0.032$
4. Trait anger (STAXI)	.49**	.12	.82**	–					$z = 3.33; p < 0.001$
5. Emotional stability	–.60**	.13	–.55**	–.39**					
Sample 3	1.	2.	3.	4.					
1. Vulnerable narcissism	–								
2. Grandiose narcissism	.06	–							
3. Trait anger (AQ)	.41**	.05	–						$z = 3.55; p < 0.001$
4. Trait anger (STAXI)	.43**	.13	.65**	–					$z = 3.00; p = 0.002$
5. Emotional stability	–.37**	.21**	–.45**	–.41**					
Sample 4	1.	2.	3.	4.	5.	6.	7.	8.	
1. Vulnerable narcissism	–								
2. Grandiose narcissism	.20**	–							
3. Trait anger (AQ)	.34**	.04	–						$z = 3.75; p < 0.001$
4. Trait anger (STAXI)	.39**	.18**	.66**	–					$z = 2.70; p = 0.007$
5. Anger expression-out	.31**	.13*	.66**	.67**	–				$z = 2.25; p = 0.024$
6. Anger expression-in	.32**	–.02	.10	.21**	.12	–			$z = 4.22; p < 0.001$
7. Anger control-out	–.24**	–.02	–.66**	–.54**	–.60**	.05	–		$z = 2.70; p = 0.007$
8. Anger control-in	–.30**	.04	–.50**	–.40**	–.37**	.06	.65**	–	$z = 4.20; p < 0.001$
9. Emotional stability	–.50**	.07	–.59**	–.55**	–.41**	–.30**	.37**	.37**	

* $p < 0.05$; ** $p < 0.001$

measure. As the authors of the scale explain: “Cronbach’s alpha, is a function of the mean inter-item correlation and the number of items comprising the scale. Multi-item scales can afford to bolster internal consistency by using several items with high content overlap. In contrast, with only two items per scale, the TIPI instead emphasized content validity considerations, resulting in lower inter-item correlations than is typical of more homogenous scales. (Gosling et al. 2003, p. 516) “.

Results

In Table 2, we present correlations between narcissisms, anger measures, agreeableness, and emotional stability across four different samples.

First, grandiose narcissism showed small positive correlations with trait anger; however, its magnitude did not exceed .20. Additionally, grandiose narcissism did not correlate significantly with emotional stability, except for sample 3, in which the relationship was positive, but rather marginal.

Vulnerable narcissism was significantly correlated with all anger measures and the correlation coefficients were relatively high, ranging from .24 to almost .49. Furthermore, vulnerable narcissism also showed significant negative correlation with emotional stability (r s from $-.39$ to $-.60$).

To examine H1, we used the Fisher r -to- z transformation to test the differences between the two types of narcissism with anger measures (Table 2). Consistent with our prediction, in all cases, vulnerable narcissism showed higher correlation with anger than grandiose narcissism, except for sample 1, in which the test reached the tendency level ($p = 0.069$).

Subsequently, we conducted a series of regression analyses with anger measures as dependent variables and vulnerable narcissism and emotional stability as predictors (Table 3). The analyses revealed that emotional stability was a strong and significant predictor of all measures of anger, whereas the relationship between vulnerable narcissism and anger decreased, and in many cases became nonsignificant. Moreover, we observed that emotional stability, added to the model in the second step (after narcissism; see Table 3, Model 1), explained more variance in anger than did vulnerable narcissism entered

Table 3 Regression analyses with anger measures as dependent variables and vulnerable narcissism and emotional stability as predictors. In model 1, emotional stability was entered in step 2; in model 2, vulnerable narcissism was entered in step 2

Dependent Variable	Model 1		Model 2	
	Predictors' β	ΔR^2	Predictors' β	ΔR^2
	Vulnerable Narcissism	Emotional Stability	Emotional Stability	Vulnerable Narcissism
Sample 1				
Trait anger (AQ)	Step 1	.26*	–	.07*
	Step 2	.02	–.55**	.25**
Sample 2				
Trait anger (AQ)	Step 1	.44**	–	.20**
	Step 2	.18(<i>p</i> = .051)	–.44**	.12**
Trait anger (STAXI)	Step 1	.50**	–	.25**
	Step 2	–.44**	.24*	.12**
Sample 3				
Trait anger (AQ)	Step 1	.41**	–	.17**
	Step 2	.29**	–.34**	.10**
Trait anger (STAXI)	Step 1	.43**	–	.18**
	Step 2	.30**	–.36**	.11**
Sample 4				
Trait anger (AQ)	Step 1	.34**	–	.12**
	Step 2	.06	–.56**	.23**
Trait anger (STAXI)	Step 1	.40**	–	.16**
	Step 2	.16	.47**	.17**
Anger expression-out	Step 1	.30**	–	.09**
	Step 2	.13	–.34**	.09**
Anger expression-in	Step 1	.32**	–	.10**
	Step 2	.22*	–.18	.03*
Anger control-out	Step 1	–.24**	–	.06**
	Step 2	–.08	.33**	.08**
Anger control-in	Step 1	–.30**	–	.09**
	Step 2	–.15	.30**	.07**

p* < 0.05; *p* < 0.001

in the second step after emotional stability (Model 2 in Table 3). In fact, vulnerable narcissism, in most cases, explained very little (or even zero) variance in anger over emotional stability.

Finally, to test H2 about the role of neuroticism in the association between vulnerable narcissism and anger we tested several mediation models. In each case vulnerable narcissism was independent variable, emotional stability was

Fig. 1 Relationships between vulnerable narcissism, emotional stability and anger. The paths with a's and b's are direct, c is the total effect from vulnerable narcissism to anger and c' is the direct path from vulnerable narcissism, controlling for emotional stability. **p* < 0.05. ***p* < 0.01

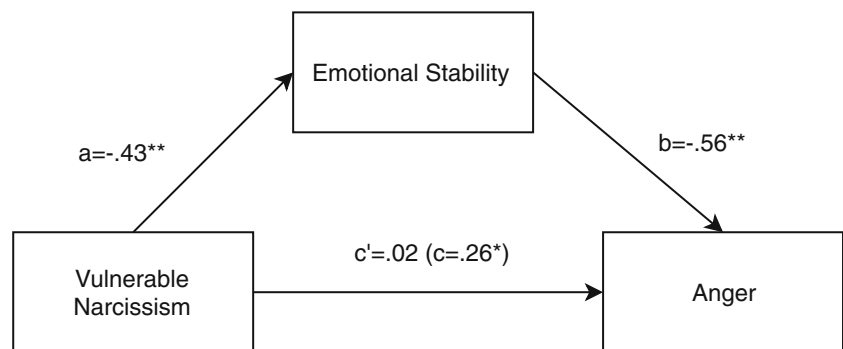
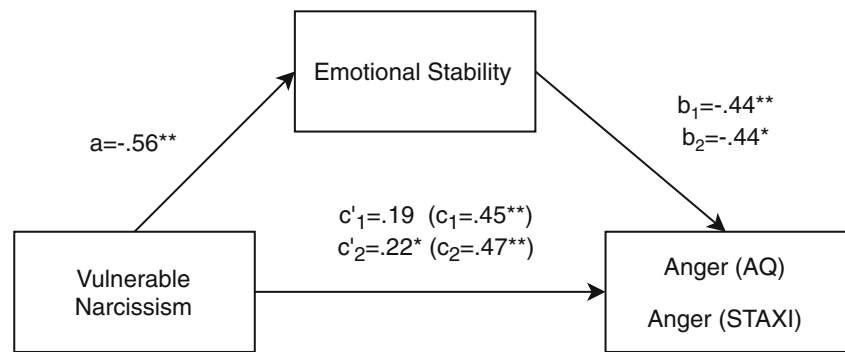


Fig. 2 Relationships between vulnerable narcissism, emotional stability and anger. The paths with a's and b's are direct, c is the total effect from vulnerable narcissism to anger and c' is the direct path from vulnerable narcissism, controlling for emotional stability. $*p < 0.05$. $**p < 0.01$



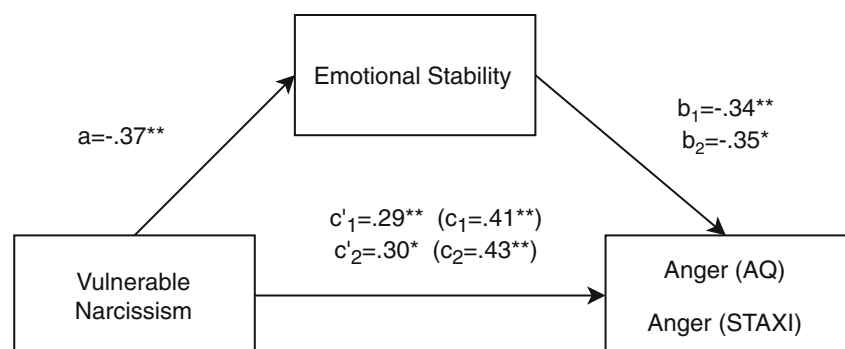
mediator and anger was dependent variable. Figures 1, 2, 3, and 4 show graphically results of the analyses. In all models the relationship between vulnerable narcissism and anger was reduced upon the inclusion of the mediator, emotional stability, although in some cases there was only partial mediation. The indirect effect for study 1 was 0.2394, 95% CI [0.133, 0.360]; in study 2 the indirect effect for the model with anger from AQ was 0.259, 95% CI [0.142, 0.401] and for anger from STAXI it was 0.262, 95% CI [0.145, 0.434]. In sample 3, the the indirect effect for the model with anger from AQ was 0.126, 95% CI [0.070, 0.199] and for anger from STAXI it was 0.130, 95% CI [0.067, 0.215]. Finally, in sample 4 we examined anger from AQ and STAXI as well as anger expression-out, anger expression-in, anger control-in, and anger control-out. The corresponding indirect effects were 0.278, 95% CI [0.201, 0.365]; 0.236, 95% CI [0.170, 0.318]; 0.171, 95% CI [0.095, 0.256]; 0.092, 95% CI [0.021, 0.172]; -0.167, 95% CI [-0.254, -0.097]; -0.147, 95% CI [-0.233, -0.075], respectively.

Discussion

In the current study, we examined four independent samples, taking into account two types of narcissism, neuroticism, and various aspects of dispositional anger. The obtained results confirmed our first hypothesis. Specifically, vulnerable narcissism was more strongly associated with trait anger and anger-related constructs than was grandiose narcissism. These results are consistent with existing data (e.g., Miller et al.

2011) and further support the narcissistic rage concept proposed by Krizan and Johar (2015). According to these authors, it is vulnerable narcissism, rather than grandiose, that is associated with a generalized tendency toward the experience of increased anger. Interestingly, Krizan and Johar (2015) have found that both forms of narcissism exhibited fairly similar correlations with behavioral aggression (physical and verbal), but they differed substantially when it came to internal aspects of aggression, such as anger and hostility. Furthermore, Krizan and Johar (2015) suggested that narcissistic rage is an explosive mix of anger, shame, sadness, and mistrust. It seems congruent with our second finding, which indicates that the relation between narcissistic vulnerability and anger was largely accounted for by neuroticism. Neuroticism reflects a general tendency toward negative emotions, including anger, anxiety, tension, sadness, and depression (Costa and McCrae 1992; Watson 2000; Zajenkowski et al. 2012). Moreover, neuroticism is strongly associated with shame (Reid et al. 2011), a core ingredient of narcissistic rage (Krizan and Johar 2015). It is possible then that the tendency toward rage/anger observed among individuals scoring high in vulnerable narcissism might be rooted in the broad personality factor of neuroticism. As mentioned above, neuroticism is most associated with “hot,” affective aspects of anger (Martin et al. 2000). These findings are usually explained with reference to the fact that neurotics are particularly sensitive to stimuli that evoke negative affect and to developing psychological distress, as they are more emotionally reactive to stressors (Matthews et al. 2009). Moreover, individuals high in neuroticism have been

Fig. 3 Relationships between vulnerable narcissism, emotional stability and anger. The paths with a's and b's are direct, c is the total effect from vulnerable narcissism to anger and c' is the direct path from vulnerable narcissism, controlling for emotional stability. $*p < 0.05$. $**p < 0.01$



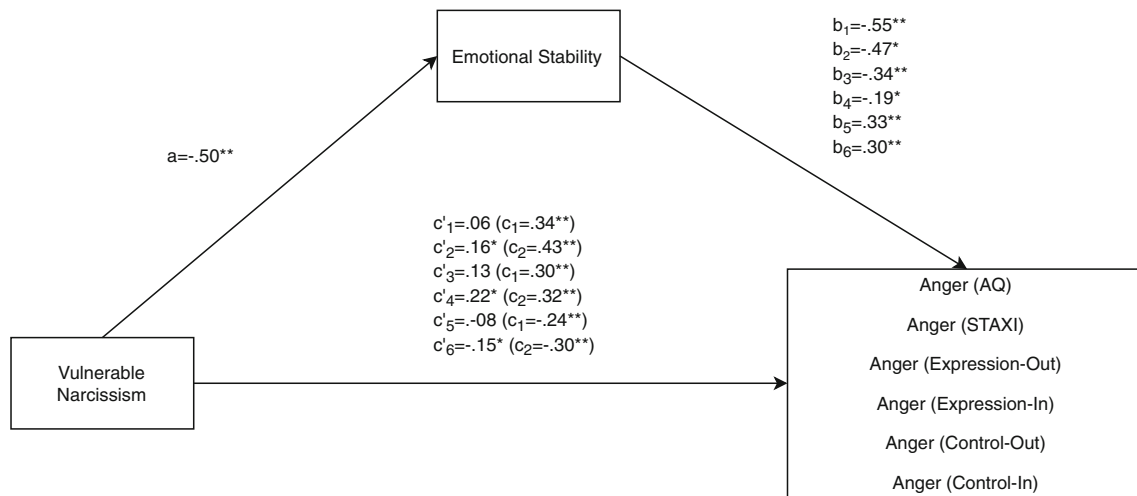


Fig. 4 Relationships between vulnerable narcissism, emotional stability and anger. The paths with a's and b's are direct, c is the total effect from vulnerable narcissism to anger and c' is the direct path from vulnerable narcissism, controlling for emotional stability. * $p < 0.05$. ** $p < 0.01$

shown to be more reactive to both laboratory inductions of negative emotions (e.g., Gross et al. 1998) and to stressors in daily life (e.g., Bolger and Schilling 1991). Stress and negative affect, regardless of their source, are regarded as factors increasing the likelihood of aggressive behavior and aggression-related phenomena (Anderson and Bushman 2002). Thus, neurotics may be prone to anger because they are more reactive to negative events in general (e.g., Bolger and Schilling 1991). Considering the high correlation between vulnerable narcissism and neuroticism (Miller et al. 2017), one may hypothesize that one of the mechanisms underlying narcissistic rage might be increased reactivity to negative stimuli. It needs to be acknowledged, however, that this prediction requires further studies.

A concept that may shed some light on our results has been recently described by DeYoung (2015) in his Cybernetic Big Five Theory. According to this theory, neuroticism determines the level to which uncertainty, threat, or punishment triggers a defensive response. Defensive responses might be of two distinct kinds: active defense and passive avoidance. The Cybernetic Big Five Theory posits that the two aspects of neuroticism, volatility and withdrawal, correspond to these two forms of defensive response (DeYoung 2015). Volatility involves emotional (e.g., anger) and behavioral responses to immediate threats or punishments in which the only motivation is to escape or eliminate them. Volatility describes the tendency to be emotionally labile and to get upset, irritated, or angry easily and, thus, appears to reflect individual differences in the tendency toward active defense. Passive avoidance involves involuntary inhibition of approach toward a goal in response to threat. Passive avoidance states can be subdivided into anxiety and depression (DeYoung 2015). In our study, we analyzed only anger, but other research revealed that vulnerable narcissism is also strongly associated with anxiety and depression (Miller et al. 2011). It seems that

individuals scoring high in vulnerable narcissism exhibit both active and passive forms of defensive responses. These results also seem congruent with the fact that vulnerable narcissism showed a similar level of correlation with anger externalization and anger internalization. Thus, paradoxically, vulnerable narcissists exhibit an increased tendency to externally express as well as to suppress angry feelings. Interestingly, neuroticism showed a similar pattern of correlation: moderate relationship with both anger-in and anger-out scales. All these results are in line with recent findings by Miller et al. (2017), suggesting that vulnerable narcissism might be nothing more but disordered neuroticism.

The current study has several limitations. First, it was correlational in nature and, to fully understand which aspects of neuroticism are relevant to narcissistic anger, further experimental studies are necessary. Second, anger was measured using self-report methods. Future research might focus on laboratory-evoked anger, to examine anger reactivity in vulnerable narcissism. Finally, other constructs than neuroticism might be considered in future analyses. For instance, Zajenkowski et al. (2016) have recently shown that past negative time perspective (negative and aversive views on one's past) is strongly associated with vulnerable narcissism, even after controlling for neuroticism.

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Compliance with Ethical Standards

Human Participants and Animal Studies All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional 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.

Conflict of Interest The authors declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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