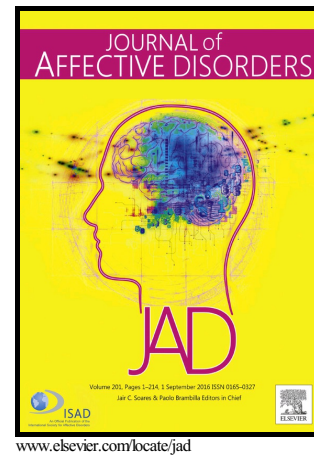# Author's Accepted Manuscript

Different Coping Strategies Amongst Individuals with Grandiose and Vulnerable Narcissistic Traits

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Cite this article as: Bruce A. fernie, Agoston Fung and Ana V. Nikčević, Different Coping Strategies Amongst Individuals with Grandiose and Vulnerable Narcissistic Traits, *Journal of Affective Disorders*, http://dx.doi.org/10.1016/j.jad.2016.08.009

Different Coping Strategies Amongst Individuals with Grandiose and Vulnerable

Narcissistic Traits

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Abstract

Objective

This study explored the relationships between coping with stress responses and

grandiose and vulnerable narcissist traits.

Method

A community sample of 170 adults (113 female) participated in this study. A cross-

sectional design was employed that utilised self-report measures of trait anxiety,

social desirability, coping with stress responses, and pathological narcissism.

Results

Regression models indicated that both grandiose and vulnerable narcissism traits are

significantly associated with, in opposing directions, behavioural disengagement

responses to stress when controlling for trait anxiety and social desirability.

Vulnerable narcissism traits were significantly associated with the use of denial as

coping with stress response when controlling for the same factors.

Conclusion

These findings provide further evidence of the discriminant validity of the

Pathological Narcissism Inventory and inform our understanding of the differences

that grandiose and vulnerable narcissistic traits have on coping.

1. Introduction

Narcissism is characterised by excessive self-admiration and self-love. Narcissistic individuals are thought of as self-absorbed and arrogant, showing no signs of empathy, not caring about anyone but themselves, whilst pre-occupied with fantasies about their own success and glory. Since the 3rd edition of the Diagnostic and Statistical Manual (DSM-III; American Psychiatric Association, 1980) conceptualised a conglomeration of an excess of these characteristics as Narcissistic Personality Disorder (NPD), research has investigated their impact on mental health. For example, studies have found that narcissism can lead to decreasing psychological health (Cramer & Jones, 2008), eating disorders (Waller, Sines, Meyer, Foster, & Skelton, 2007), especially bulimia nervosa (Maples & Seibert, 2011), and increased cortisol activity in response to stressors (Edelstein, Yim, & Quas, 2010). Prevalence rates of NPD are low with a review of 10 studies suggesting a median rate at less than 1% (Torgersen, Kringlen, & Cramer, 2001), with it affecting more males than females (7.7% vs. 4.8%: Stinson et al., 2008). The low prevalence of NPD is arguably challenging for researchers in terms of recruiting suitable sample sizes for studies. Indeed, like this study, other investigations have recruited samples that have consisted largely (or entirely) of non-clinical individuals, measuring narcissistic traits rather than focusing entirely on individuals who have received a clinical diagnosis of NPD (e.g., Pincus et al., 2009; Thomas, Wright, Lukowitsky, Donnellan, & Hopwood, 2012; Tritt, Ryder, Ring, & Pincus, 2010; Wright et al., 2013).

Narcissistic traits have been delineated into vulnerable and grandiose subtypes (Gabbard, 1989), although it seems that individuals are sorted on the basis of their

relative levels of vulnerable and grandiose characteristics rather than a categorical difference (Pincus & Lukowitsky, 2010). Some characteristics, such as a belief in their own superiority and a sense of entitlement, may be shared amongst individuals with higher levels of either grandiose or vulnerable narcissistic traits. However, individuals with higher levels of either narcissism trait subtypes are likely to respond differently to real or imagined injury to their sense of self, or to when they perceive that others have treated them in a manner that does not align with their own self-beliefs. For example, individuals with higher levels of vulnerable narcissistic traits may be distressed and surprised, responding in a passive manner in such situations, whereas those with higher levels of grandiose narcissistic traits might seek revenge for such an oversight, demonstrating a more active response.

DSM-III (revised) diagnostic criteria for NPD (American Psychiatric Association, 1987) emphasized grandiose over vulnerable traits, possibly impeding research into vulnerable narcissism (Cain, Pincus, & Ansell, 2008). However, some research has provided evidence for delineation of narcissistic traits. For example, grandiose narcissistic traits have been shown to be unrelated to depressive temperament, while vulnerable narcissistic traits predicted depressive temperament when controlling for anxious temperament (Tritt et al., 2010). Another study found that individuals with a predominance of either narcissistic grandiose or vulnerable traits differ in terms of their interpersonal problems, with the former being associated with hostile-dominant interpersonal difficulties and the latter to hostile-submissive (Dickinson & Pincus, 2003). For a review of research into narcissistic subtypes, see Cain et al. (2008).

Research exploring grandiose and vulnerable narcissistic traits has been facilitated by the development of the Pathological Narcissism Inventory (PNI: Pincus

et al., 2009). However self-report measures are vulnerable to social desirability bias resulting from narcissists' 'exaggerated need for the approval of others' (American Psychiatric Association, 1987). For example, Watson and Morris (1991) found a significant association between levels of exploitative and entitlement traits in narcissism and social desirability. Further support for the delineation between grandiose and vulnerable narcissistic traits could lie in the different strategies employed to cope with stress. Carver, Scheier, and Weintraub (1989) developed the COPE questionnaire to measure a broad range of coping strategies. Of particular interest in the delineation of the narcissistic traits are coping strategies that represent 'disengagement' from stress responses. Such responses include 'denial', which indicates a manner of coping where an individual attempts to repudiate the reality of the stressor, as well as 'behavioural' and 'mental disengagement'. Behavioural disengagement refers to sense of helplessness that results in a reduction or termination of attempts to address stressors or attain goals due to expectations of poor outcomes, whereas mental disengagement describes a means of coping where distraction is used to avoid cognitive stressor obstacles to goal attainment. Individuals with higher levels of vulnerable narcissistic traits should be more likely to use denial (arguably a passive response) to protect a fragile ego than those with higher levels of grandiose narcissistic traits. Furthermore, the former should also be more likely than the latter to mentally and behaviourally disengage in response to stress, reflecting their hostile-submissive interpersonal difficulties. These maladaptive coping strategies can be conceived as examples of emotion-orientated coping (Carver et al., 1989), which have been shown to be associated with trait anxiety (Endler, Kantor, & Parker, 1994).

The present study aimed to generate further empirical evidence to support the delineation of narcissism into grandiose and vulnerable subtypes. This study was

exploratory, although we hypothesized that narcissistic traits will be significantly

associated with (1) denial as well as (2) behavioural and (3) mental disengagement

maladaptive coping responses to stress when controlling for trait anxiety and social

desirability. However, the primary aim of the study was to test the hypothesis that the

pattern of coping responses would differ between those with differing levels of

grandiose and vulnerable narcissistic traits.

2. Method

2.1 Participants and procedure

A community sample of 170 participants (113 females [66.5%]; M_{age}=31.5 years,

SD= 10.6, range 18 to 65) was recruited via online advertisements and completed a

battery of self-report measures. Participation was open to the general population:

hence the sample was non-clinical with study eligibility not including a diagnosis of

NPD. Half of the sample were undergraduate (27.1%) or postgraduate (22.4%)

students or graduates, whilst the remainder were non-students working in a wide area

of occupations (e.g., business, marketing, health care, and teaching), with the majority

self-reporting their ethnicity as white (76%).

2.2 Self-report measures

2.2.1 Narcissism measure

To assess grandiose and vulnerable narcissistic traits, we used the seven-factor, 52-

item Pathological Narcissism Inventory (PNI: Pincus et al., 2009). Scoring of the PNI

adhered to the method suggested by Wright, Lukowitsky, Pincus, and Conroy (2010)

rather than that of the original. Narcissistic grandiosity traits were calculated by

summing 'exploitative', 'grandiose fantasy', and 'self-sacrificing self-enhancement'

factors, and narcissistic vulnerability traits by tallying 'contingent self-esteem', 'hiding

the self', 'entitlement rage', and 'devaluing' factors. PNI factors possess high internal consistency (Pincus et al., 2009; Wright et al., 2010).

2.2.2. Measure of coping with stress

The COPE questionnaire was developed by Carver et al. (1989) and consists of 13 factors that assess a variety of coping strategies. For the purposes of the present study we collected participant responses for three specific coping strategies: 'denial' (e.g., "I refuse to believe that it has happened"), 'behavioural disengagement' (e.g., "I admit to myself that I can't deal with it, and quit trying"), and 'mental disengagement' (e.g., "I daydream about things other than this"). The scale's psychometric properties are good, with good internal consistency and convergent and discriminant validity, as well as acceptable-to-good test-retest reliability (Carver et al., 1989).

2.2.3 Control variables

To control for social desirability bias, we used the 33-item Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960). Items from the M-C SDS are designed to represent thoughts, attitudes, and behaviours that might be perceived to be socially desirable, for example: "I have never felt that I was punished without cause", "I have never intensely disliked anyone", "I am always courteous, even to people who are disagreeable", and "I don't find it particularly difficult to get along with loud-mouthed, obnoxious people". The M-C SDS has good internal consistency and test-retest reliability (Crowne & Marlowe, 1960). Trait anxiety was controlled for with the 28-item version of the Taylor Manifest Anxiety Scale (TMAS; Taylor, 1953), which consists of statements like "I am often sick to my stomach" or "My sleep is restless and disturbed". This version is highly correlated with the 50-item TMAS and possesses good internal consistency and test-retest reliability (Taylor, 1953).

2.3 Statistical analysis

Descriptive statistics were calculated for all study variables, including normality tests. The distribution of PNI sub-factor scores (including their quartiles) was examined to facilitate describing characteristics of the sample and were also tested for significant differences between genders. Correlation analyses were calculated to identify variables that were significantly associated with the three COPE factors that were measured in this study. Variables identified by the correlation analyses to be significantly associated with the outcomes of interest were entered into hierarchical regression models that used either denial, behavioural disengagement, or mental disengagement as outcome variables in order to test the experimental hypotheses. The data entered into the regression analyses were also examined to ensure they met the required assumptions.

3. Results

3.1 Data distribution and correlation analyses

Means, standard deviations, and ranges of all study variables are shown in Table 1. Tests of normality and examinations of skewness and kurtosis revealed that the distributions of all variables were non-normal except for both PNI factors. The distribution of participants' PNI grandiosity scores were skewed toward lower levels and was moderately peaked. In contrast, the distribution of PNI vulnerability scores were skewed towards higher levels although these were flatter than grandiosity scores. The PNI's grandiosity scale could generate a maximum score of 90 and this study's data revealed (in ascending order) quartiles at 37, 48, and 56, whilst the maximum PNI vulnerability score is 170 and the quartiles for our sample were 59.8, 77, and 101.

Females participants contributed to 66.5% of the data, yet NPD has been reported to be more prevalent in males (Stinson et al., 2008). Despite this study's use of a non-clinical sample and its focus on narcissistic traits (and not NPD, per se), we wished to explore whether levels of narcissistic traits differed across genders. To address this, we conducted a series of independent t-tests that showed that scores on both PNI factors did not significantly differ between males and females.

A series of Spearman's Rho correlation analyses were conducted that revealed that trait anxiety, both narcissism traits (grandiose and vulnerable), and social desirability, but not age, were significantly associated with all three measured maladaptive coping with stress strategies. Age was significantly and negatively associated with grandiose and vulnerability narcissistic traits, as well as trait anxiety (see Table 1).

Table 1: Non-parametric correlation matrix, means, standard deviations and ranges for study variables

Measure	X (SD)	Range	2	3	4	5	6	7	8
1.Age	31.5 (10.6)	18-65	-.30**	-.20**	-.20**	.06	-.13	.01	-.07
2. PNI – Grandiose	47.0 (15.8)	4-83		.67**	.40**	.22**	.24**	.22**	.29**
3. PNI – Vulnerable	78.8 (31.2)	5-160			.60**	.46**	.47**	.46**	.35**
4. TMAS	14.7 (4.7)	2-27				.39**	.39**	.42**	.40**
5. M-C SDS	14.8 (6.8)	4-28					.27**	.16*	-.12

6. COPE – Denial	2.6 (3.2)	0-12		.43**	.28**
7. COPE – Behavioural disengagement	4.0 (3.3)	0-12			.42**
8. COPE – Mental disengagement	6.2 (3.1)	0-12			

*p<.05.

**p<.01.

Note. COPE = Coping with stress questionnaire; TMAS = Taylor Manifest Anxiety Scale; M-C SDS = Marlowe-Crowne Social Desirability Scale; PNI = Pathological Narcissistic Inventory; n=170.

3.2 Data configuration

Data for the multiple regression models were tested against several assumptions. There was no evidence of multicollinearity: i.e., (1) no correlations greater than $r = .9$ were identified between the predictor variables used in the regression analyses; (2) all Tolerance Indexes that were calculated were above .10; and (3) the Variance Inflation Factors for all predictor variables were less than 10. Additionally, the Durbin-Watson test suggested that the assumption of independent errors is tenable. Furthermore, histograms and normality plots suggested that the residuals were normally distributed and plots of the regression-standardized residuals against the regression standardized predicted values suggested that the assumptions of linearity and homoscedascity were met.

3.3 Hierarchical regression analyses with coping with stress responses as outcome variables

Variables that were found to be significantly associated with the three coping with stress response factors (i.e., denial and mental and behavioural disengagement) were entered into three, two-step regression models (see Table 2 for the correlation matric).

The first model used the denial factor of the COPE scale as the outcome variable and the second behavioural disengagement. On the first step of both of these models, trait anxiety and social desirability were entered as independent variables and on the second step both PNI factors were added. In the final step of the denial COPE model, only vulnerable narcissistic traits were significantly associated with the outcome variable; this model accounted for 17% of the variance. In the final step of the behavioural disengagement COPE model, trait anxiety and both PNI factors were significantly associated with the outcome variable. The directions of the PNI factors' relationships were contrary, suggesting that more vulnerable and less grandiose traits were associated with greater behavioural disengagement. The second model accounted for 30% of the variance of behavioural disengagement. The final model used the mental disengagement factor from the COPE as the outcome variable. Trait anxiety was the entered in the first step with both PNI factors added on the second. In the final step, only trait anxiety was significantly associated with mental disengagement. This model accounted for 17% of the variance in mental disengagement.

Table 2 Hierarchical Regression Analyses with Coping with Stress Factors as Outcome Variables.

Outcome variable		Predictor	R^2	Adjusted R^2	B	SE	B	95% Confidence Interval LL	UL
COPE - Denial	Step 1								
		TMAS			.16	.04	.34**	.08	.23
		M-C SDS			.05	.05	.07	-.06	.15
			.14**	.13**					
	Step 2								
		TMAS			.09	.04	.19*	.01	.17
		M-C SDS			.01	.05	.01	-.12	.01
		PNI - Grandiose			-.04	.02	-.18	-.07	.00
		PNI - Vulnerable			.04	.01	.41**	.02	.06
			.20**	.18**			.		

			R^2	ΔR^2	B	SE	β	LL	UL
COPE – Behavioural disengagement	Step 1								
		TMAS			.22	.04	.45**	.15	.29
		M-C SDS			.03	.05	.05	-.14	.07
			.19**	.18**					
	Step 2								
		TMAS			.14	.04	.30**	.06	.22
		M-C SDS			.10	.05	.15	-.21	.00
		PNI - Grandiose			-.06	.02	-.29**	-.10	-.02
		PNI - Vulnerable			.05	.01	.51**	.03	.08
			.29**	.27**			.		
COPE – Mental disengagement	Step 1								
		TMAS			.18	.03	.40**	.12	.25
			.16**	.16**					
	Step 2								
		TMAS			.14	.04	.31**	.06	.22
		PNI - Grandiose			.02	.02	.08	-.02	.05
		PNI - Vulnerable			.01	.01	.10	-.01	.03
			.18**	.17**					

*p<.05.

**p<.01.

Note. COPE = Coping with stress questionnaire; TMAS = Taylor Manifest Anxiety Scale; M-C SDS = Marlowe-Crowne Social Desirability Scale; PNI = Pathological Narcissistic Inventory; n=170;

4. Discussion

The findings of this study provide evidence that grandiose and vulnerable narcissism traits lead to different coping strategies in response to stressors and further establish the discriminant validity of the PNI. The results found a differing pattern of significant associations between grandiose and vulnerable narcissistic traits and denial, as well as behavioural disengagement coping strategies, when accounting for trait anxiety and social desirability, supporting our first two hypotheses. However, no evidence that narcissistic traits were associated with mental disengagement when controlling for trait anxiety were found, which failed to support our final hypothesis. Only levels of vulnerable narcissistic traits were significantly associated with denial when controlling for trait anxiety and social desirability. This finding aligns itself with the delineation of narcissistic traits: for example, the use of denial might be a coping response to feelings of shame when individuals with higher levels of

vulnerable narcissistic traits perceive that their own needs are not being met. We also found a negative, significant relationship between both factors of the PNI (as well as trait anxiety) and age. No such significant relationships were found between age and coping. These findings suggest that as people age they become less narcissistic and less anxious.

The finding that higher levels of vulnerable narcissistic traits and lower levels of grandiose traits were significantly associated with behavioural disengagement when controlling for trait anxiety and social desirability seems to fit the respective narcissistic characteristics. It suggests that when individuals with higher levels of vulnerable narcissistic traits do not have their expectations met (causing stress), they respond in the hostile-submissive domain by giving up behavioural attempts to attain goals, while those with higher levels of grandiose narcissistic traits respond in the hostile-dominant domains (Dickinson & Pincus, 2003). The non-significant association of narcissism traits with mental disengagement when controlling for trait anxiety is also of interest. It suggests that, whilst those with higher levels of narcissistic traits engage in significantly more or less behavioural disengagement, their level of mental disengagement remains unchanged. This may mean that trait anxious individuals with narcissistic characteristics may be unable to stop dwelling on their expectations whether or not they are facing stressful situations.

This study is subject to several limitations: first self-report biases, context effects, and poor recall may have contributed to errors in the self-report measurements, although an attempt was made to control for social desirability bias. Second, a cross-sectional design was adopted and this does not allow causal inferences. Third, this study utilizes self-report measures to assess subjective experience and as such, like much psychological research, there is always doubt

whether we are measuring the constructs we intend. Fourth, the study utilised a non-clinical sample and we were unable to find clinical cut-off scores for the factors of the PNI in the extant literature. We looked at the quartile scores for both grandiose and vulnerable variables in an attempt to address these limitations, as well as related concerns pertaining to a potential restriction of range: i.e., is it possible that this study's sample predominantly represented 'normal' levels of narcissism, limiting the clinical relevance of the results? This analysis suggested that a reasonable proportion of the participants had levels of narcissistic traits above the mean. Arguably this indicates that this study's findings have some clinical relevance, although we cannot report on how high levels of these traits might affect participants' day-to-day functioning. Fifth, it could be that vulnerable narcissistic traits suppress the relationship between grandiose narcissistic traits and behavioural disengagement and, as a result, the change in the direction of association between grandiose traits and behavioural disengagement found in this study could be due to multi-collinearity in the data. However, the earlier testing (i.e., correlations between predictors, Tolerances Indexes, and Variance Inflation Factors) of the data suggests otherwise. Finally, the study sample gender ratio is the reverse of what has been reported in epidemiological studies (Stinson et al., 2008) insofar the majority of participants in this study were female. This may limit the generalizability of our findings, however research has suggested that the PNI performs similarly across genders (Wright et al., 2010) and the results of this study found no significant difference between males and females in terms of both grandiose and vulnerable narcissistic traits. Despite these limitations, we believe these findings provide further validation of the PNI and increase our understanding of coping between individuals with differing levels of grandiose and vulnerable narcissistic traits.

Author Disclosure

We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of authors listed in the manuscript has been approved by all of us.

We confirm that we have given due consideration to the protection of intellectual property associated with this work and that there are no impediments to publication, including the timing of publication, with respect to intellectual property. In so doing we confirm that we have followed the regulations of our institutions concerning intellectual property.

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Conflict of Interest

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

Contributors

Author BAF helped to shape the experimental hypotheses wrote the manuscript and conducted the analysis of the data. Author AF gathered the data and, with author AVN, planned and designed the study,

23/4/16

Conflict of Interests

Authors BAF, AF, and AVN declare no conflicts of interest

South London and Maudsley NHS Foundation Trust and King's College London. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

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Highlights

- Grandiose and vulnerable narcissism traits predict behavioural disengagement responses to stress.
- Vulnerable narcissism traits predict the use of denial as coping with stress response.
- Further evidence of the discriminant validity of the Pathological Narcissism Inventory is provided.