Vulnerable narcissism and borderline personality in relation to personal values

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ARTICLE INFO	ABSTRACT
	In the current paper, we compare two clinically relevant constructs: vulnerable narcissism (VN) and borderline personality (BP). Although they may resemble qualitatively different constructs, they may also be interpreted as simply existing within a disagreeable and introverted neurotic. Given this inconsistency, we preliminarily compare the extent to which VN and BP are convergent, as well as examine the divergences between them in the context of the underlying motivational dynamics – values. The study was conducted on an adult sample (*N* = 345). To analyse the structure of VN and BP, we used exploratory structural equation modelling; to examine their relationships with values, we used the structural summary method. Our results partially supported the notion that BP and VN are associated, yet structurally distinct constructs. Moreover, the analysis of values revealed that BP is more likely to value openness to change, while VN values self-enhancement.

1. Introduction

1.1. Personality disorders and their relation to the structure of personality

Investigators of personality disorders (PD) often conceptualise PDs as maladaptive, extreme variations of normal personality traits (Livesley, 2001). The underlying assumption is that the features of PDs are distributed continuously rather than categorically, and lie on a continuum alongside basic personality functioning (Wright, 2011). To date, many studies have shown that normal personality traits, such as those assessed, for example, by the five-factor model (McCrae & Costa, 1997), are systematically related to PDs (Samuel & Widiger, 2008) and are useful for a range of clinical purposes. Along this vein, the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM; American Psychiatric Association, 2013) adopted the five-factor personality structure and introduced a corresponding trait model in which five general domains (i.e., negative affectivity, detachment, antagonism, disinhibition, and psychoticism) represent the pathological counterparts of McCrae and Costa's (1997) basic personality dimensions (respectively: neuroticism, extraversion, agreeableness, conscientiousness, and openness).

Descriptions of PDs within the five-factor model framework became a critical component of research and clinical practices as aberrant tendencies were reflected at extreme levels in normative traits (Hopwood, Thomas, Markon, Wright, & Krueger, 2012). However, Wright (2011) revealed a considerable limitation of such an approach: trait-based models do not articulate the distinct processes and mechanisms underpinning normal and disordered personality functioning. For example, unlike the five-factor model, PDs are closely linked to paradoxical motivations and cognitions (e.g., need for admiration coupled with antagonism and low empathy in narcissism; Morf & Rhodewalt, 2001), rigid behavioural patterns (e.g., self-mutilation to escape aversive emotions in borderline; Linehan, 1993), and cognitive distortions (e.g., identity disturbances in borderline and inflated sense of self-importance in narcissism; McCrae, 2006). In support of this notion, McCrae (2006) argues that extremities in normal traits, although they increase the likelihood of one having specific problems, do not imply pathology. Rather, these problems become disorders when they are maintained by misperceptions of reality and exceed one's ability to cope with them.

Thus, the question arises whether the investigation of basic personality traits is sufficient to understand PDs. McAdams and Pals (2006) suggest that basic personality traits are merely a "rough outline of human individuality" (p. 207). To achieve a comprehensive understanding of an individual, they proposed an integrative personality framework that comprises three levels: dispositional traits (e.g., the Big Five), an individual's life narrative (i.e., how a person interprets their life), and elements of characteristic adaptations (e.g., values and

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schemas). Consequently, personality can be described not only as a static description of one's feelings, thoughts, and behaviours, but also as dynamic, process-driven patterns, such as needs, goals, and motives (Cieciuch, 2012). Similarly, Hopwood, Schade, Krueger, Wright, and Markon (2013) demonstrated how dysfunctional schemas from the cognitive model of PDs (Beck & Freeman, 1990) and pathological traits (APA, 2013) can be integrated into a more comprehensive and clinically useful assessment of personality pathology. Following the cognitive approach, one could say that personality traits (e.g., withdrawal) are overt expressions of underlying ingrained beliefs (e.g., *I cannot trust other people*). In other words, while traits describe *what* behaviours, feelings, and thoughts might occur in PDs, beliefs account for a more fundamental issue – *why* these occur.

A promising approach within this context is the motivational value theory of Schwartz (1992). Values refer to desirable, trans-situational goals that motivate action, and serve as guiding principles in one's life (Cieciuch, 2012). Thus, as well as pathological beliefs, values have the potential to shed further light on forces that guide certain symptoms in PDs. Schwartz (1992) argues that values are organised into two bipolar dimensions: openness to change (i.e., moving towards independence in thoughts and actions, new challenges, and exciting life experiences) vs conservation (i.e., respecting tradition and seeking stability, safety, and social order), and self-enhancement (i.e., pursuing self-interests, as well as dominance and control over other people) vs self-transcendence (i.e., promoting the welfare and interests of others).

To date, numerous studies have focused on examining values and basic personality traits as two complementary characteristics of a human being (Cieciuch, 2012; Parks-Leduc, Feldman, & Bardi, 2015). However, few studies have investigated the relation between values and the clinical aspects of personality. A recent study conducted by Hanel and Wolfradt (2016) identified that values are meaningfully related to a range of clinical constructs, such as anxiety, depression, stress, and schizotypy. Zeigler-Hill and Hobbs (2017) examined the motivational foundations of pathological personality traits (APA, 2013) and evidenced their unique associations with certain social motives (e.g., detachment was associated with a desire for independence) Further, several studies on narcissism (Rogoza, Wyszyńska, Maćkiewicz, & Cieciuch, 2016) revealed that values predict such constructs beyond the five-factor model. Thus, in the current study, we focused on extending these investigations into two related clinical aspects of personality: vulnerable narcissism (VN) and borderline personality (BP).

1.2. Vulnerable narcissism

VN is characterised by emotional and behavioural reactivity dominated by high avoidance motivation (Krizan & Herlache, 2018). Re-activity is a self-regulatory style oriented towards tracking obstacles, appraising setbacks, and combating threats. Hence, in social interactions vulnerable individuals tend to be distrustful, reticent, and over-focused on self-preservation, yet still seek to satisfy the narcissistic need for admiration (Dickinson & Pincus, 2003). Moreover, they have low and fragile self-esteem (Mota et al., 2019). One possible explanation is that they strive to be admired but simultaneously lack effective self-enhancement strategies (Dickinson & Pincus, 2003). Instead, to regulate their self-esteem, VNs must rely upon social feedback, which is frequently perceived as unsatisfactory due to their hypersensitive nature (i.e., contingent self-esteem; Rogoza, Żemojtel-Piotrowska, Kwiatkowska, & Kwiatkowska, 2018). Consequently, high avoidance, unique to VN, may be considered to protect one's self-worth.

VN is positively associated with internal symptoms of distress (e.g., depression, anxiety; Dickinson & Pincus, 2003), as well as self-injuries, suicide attempts, and treatment utilisation (Pincus et al., 2009). Building on the extant literature, we believe that VN is a significant clinical issue, particularly when considering the diagnostic criteria for narcissistic personality disorder in various editions of the DSM (Weiss & Miller, 2018) understate the importance of vulnerable characteristics.

In fact, Miller et al. (2010) suggested that VN is more similar to another clinical construct – BP.

1.3. Borderline personality

BP can be conceptualised as a pervasive dysregulation in emotional, cognitive, behavioural, and interpersonal functioning (Linehan, 1993). Individuals with BP experience intense dysphoric affects (e.g., depression, anger, anxiety) and rapidly shift from one mood to another (Zanarini, 2005). Interpersonally, they struggle with a profound fear of rejection by or separation from significant others (APA, 2013). As an attempt to modulate these emotions, another common BP symptom occurs – impulsive and self-destructive behaviours, such as bingeing, substance abuse, or self-injuries (Tragesser, Solhan, Schwartz-Mette, & Trull, 2007). A further consequences of dysregulated emotions encompass cognitive difficulties (e.g., undue suspiciousness, dichotomous thinking), which, in turn, lead to identity disturbances (i.e., unstable sense of self coupled with a chronic feeling of emptiness; Tragesser et al., 2007). Such persons abruptly shift between opposing views of themselves and others (e.g., being good or bad, perfect or worthless; Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004). As a result, they often establish chaotic and conflicted relationships, alternating between extremes of over-involvement and sudden withdrawal (APA, 2013).

1.4. Convergence and divergence between VN and BP

BP and VN, although recognised as distinct constructs, manifest similar patterns in dominant affect, self-esteem, and psychopathological symptoms (Miller et al., 2010). Miller et al. (2010) compared VN and BP in regard to basic personality traits and found a high degree of congruence between them; both manifested higher levels of neuroticism and lower levels of extraversion and agreeableness. Still, significant differences in their correlations suggested some nuanced distinctions, with VN being more conscientious, but also less open to experience. A possible explanation of this difference is that borderline individuals, unlike VNs, are highly impulsive. They act on the spur of the moment and exhibit risk-taking behaviours without regard to consequences (APA, 2013). In contrast, VNs are shy and dismissive (Krizan & Herlache, 2018; Rogoza et al., 2018) but still need others to admire them regardless of their behaviours, beliefs, skills, and status (Dickinson & Pincus, 2003). Building on this, one might hypothesise that despite some similarities (e.g., being neurotic), there are differences in the underlying motivations – with BP being more prone to seek stimulation, while VN being prone to self-enhancement.

2. Current study

The purpose of this study was twofold: (1) to examine whether the distinction between BP and VN is empirically plausible, and (2) to investigate the divergences between BP and VN regarding the values of each. Although the current literature demonstrates that the two constructs share a number of common characteristics, to date there have been no studies investigating their underlying motivations. We hypothesise that BP and VN are positively related, yet distinguishable from each other as unique theoretical concepts. Regarding their underlying motivations, we hypothesise that whereas BP has a greater tendency to be open to change, VN is more likely to value self-enhancement.

3. Method

3.1. Participants and procedure

Within the study, the total of $N = 391$ adults aged from 18 to 46 years participated. We included three quality checks (e.g., "If you are

reading this sentence, please mark two") and excluded from the dataset participants who answered incorrectly to at least one question. The final sample comprised 345 adults (67.8% were women) from the United States with a mean age of 30.5 years ($SD = 7.56$ years; age range: 18–46). The participants diverged ethnically and identified themselves mostly as Caucasian (61.4%), Black or African American (12.5%), Hispanic or Latino (10.4%), Asian or Pacific Islander (8.1%) and Native American or American Indian (0.6%). The rest of respondents described themselves as Other (4.1%) or preferred not to disclose their ethnicity (2.9%). Only 9% of participants obtained a postgraduate degree, while the majority of respondents had either graduated college (31.2%) or started college but hadn't yet completed their degree (31.9%). Other respondents reported a high school graduation (15.4%) or vocational training (7.8%) as their highest level of education. The data were gathered via Clickworker, an online crowd-sourcing platform. All respondents were ensured confidentiality. The order of items was fixed for each participant. Participants were administered a larger set of self-report measures and compensated 0.60$ for completion of the study.

3.2. Measures

3.2.1. Narcissistic vulnerability scale

For assessment of VN, we used the Narcissistic Vulnerability Scale (NVS; Crowe et al., 2018). The NVS is a short adjective-based measure comprising 11 items. Respondents were asked to indicate the extent to which each word describes them in general, using a 7-point Likert-type scale ranging from 1 (*not at all*) to 7 (*extremely*). In the present study participants achieved mostly medium results ($M = 3.13$; $SD = 1.27$), and the reliability for this scale was very good ($\alpha = 0.90$; sample item: *Fragile*).

3.2.2. McLean screening instrument for borderline personality disorder

To assess BP, we used the McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD; Zanarini et al., 2003). The MSI-BPD is a 10-item, self-report measure of BP features (sample item: "*Have you chronically felt empty*?"). In our study, we used the continuous 5-point Likert-type scale ranging from 1 (*definitely no*) to 5 (*definitely yes*). Participants who were enrolled within the study mostly achieved low/moderate scores ($M = 2.71$; $SD = 1.07$) and the reliability estimate was very good ($\alpha = 0.90$).

3.2.3. Twenty item values inventory

Values were measured using the Twenty Item Values Inventory (TwIVI; Sandy, Gosling, Schwartz, & Koelkebeck, 2016). Respondents used a 6-point Likert-type scale ranging from 1 (*not at all like me*) to 6 (*very much like me*) to rate the extent to which the individuals portrayed in the questionnaire were similar to themselves. In our study, rather than focusing on separate values, we focused on examining higher order values as they should be organized within equally spaced circumplex structure (Gurtman & Pincus, 2003). The higher order values include self-enhancement (mean of achievement and power; $M = 2.99$; $SD = 0.91$; $\alpha = 0.75$; example item: "S/he always wants to be the one who makes the decisions. S/he likes to be the leader"); self-transcendence (mean of benevolence and universalism; $M = 4.13$; $SD = 0.73$; $\alpha = 0.76$; example item: "It's very important to him/her to help the people around him/her. S/he wants to care for their well-being"); openness to change (mean of self-direction, stimulation, and hedonism; $M = 3.73$; $SD = 0.73$; $\alpha = 0.80$; example item: "S/he thinks it's important to be interested in things. S/he likes to be curious and to try to understand all sorts of things"); and conservation (mean of tradition, security and conformity; $M = 3.30$; $SD = 0.75$; $\alpha = 0.65$; example item: "It is important to him/her to always behave properly. S/he wants to avoid doing anything people would say is wrong").

3.2.4. Statistical analyses

To analyse the structure of VN and BP, we used exploratory structural equation modeling (ESEM) with robust maximum likelihood in Mplus v.7.2. (Muthén & Muthén, 2012). We used ESEM because it is a technique working in the framework of structural equation modeling methodology, but overcoming some limitations associated with typically used confirmatory factor analysis (e.g., denying presence of any cross-loadings, which is often untenable assumption in psychological research) and exploratory factor analysis (e.g., testing a model without any a priori assumptions regarding its structure; see Marsh, Morin, Parker, & Kaur, 2014 for a comprehensive review). Given that we expected some overlap (expressed in the cross-loadings) between BP and VN and that we expected BP and VN to be loaded primarily by their corresponding items, we found ESEM as a method of best choice. In ESEM, the a priori hypothesized structure is specified through target rotation: All cross-loadings were 'targeted' to be as close to 0 as possible, but they were still being estimated. Moreover, ESEM enables to test for the method bias, which is expressed as a single uncorrelated latent factor, loaded by items from a single measure. The strength of the loadings is constrained to be equal (reflecting that the method bias had equal influence on each item). The squared factor loadings reflects the percentage of which the method bias explained variance of the measure. In the current study, we controlled for BP and VN method bias through introduction of two uncorrelated method factors. The model fit was assessed using the commonly used fit indices: comparative fit index (CFI), the root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). According to interpretation guidelines (Marsh, Hau, & Wen, 2004), acceptable fit of the data to the model is indicated by CFI $\geq$ 0.90, RMSEA $\leq$ 0.08 and SRMR $\leq$ 0.06.

We analyzed the relations between VN and BP to values in two steps. First, as a preliminary check, within the framework of structural equation modeling we analyzed whether the structure of values is circumplex or not; that is, whether four values have equal commonality (i.e., radius length) and equal spacing (i.e., the distribution around the circle is uniform; Gurtman & Pincus, 2003). The model fit was assessed in the same vein as ESEM. Afterwards, using the structural summary method (SSM; Zimmerman & Wright, 2017) we projected VN and BP on the conceptual space of the values circumplex. Within SSM, four parameters were estimated: elevation (i.e., mean correlation to all circumplex variables, which is interpreted as influence of general factor), amplitude (i.e., vector length, the degree of structured patterning of the profile), angular displacement (i.e., domineering circumplex location) and model fit (R^2). The model is well-fitted when the values of R^2 are 0.70 or greater. Values of elevation and amplitude above 0.15 are notable (Wright, Pincus, Conroy, & Hilsenroth, 2009; Zimmerman & Wright, 2017).

All the data and syntaxes used for the analyses are available at https://osf.io/t2wc3/?view_only=3ea3ba28fe6e4420b0f3486790e3bbef.

4. Results

4.1. Bivariate correlations for all studied variables

Correlations between all variables (see Table 1) reveal that BP and VN are highly associated, with BP being negatively related to conservation and self-transcendence, and VN negatively correlated with conservation.

4.2. The distinction between VN and BP

In Table 2, we present factor loadings from ESEM calculated on all items measuring VN and BP.

The analysed two-factor model presented an acceptable model fit to the data, $\chi^2_{(167)} = 430.90$; $p < .001$; CFI = 0.915;

Table 1
Bivariate Correlations for All Studied Variables.

	1	2	3	4	5
1. Borderline personality					
2. Vulnerable narcissism	.65**				
3. Openness to change	.03	−0.10			
4. Self-enhancement	.01	.04	.35**		
5. Conservation	−0.17**	−0.12*	.15**	.27**	
6. Self-transcendence	−0.05	−0.13*	.40**	.06	.30**

* $p < .05$ (2-tailed).
** $p < .01$ (2-tailed).

Table 2
Factor Loadings of Borderline Personality (BP) and Vulnerable Narcissism (VN) Exploratory Structural Equation Model.

Item	VN	BP
NVS1	**.53**	.21
NVS2	**.54**	.18
NVS3	.09	.25
NVS4	**.64**	.02
NVS5	**.48**	.21
NVS6	**.46**	.19
NVS7	**.32**	**.38**
NVS8	**.57**	.25
NVS9	.09	**.70**
NVS10	**.39**	**.31**
NVS11	−0.01	**.32**
BPD1	.21	.16
BPD2	**.43**	.06
BPD3	.22	**.39**
BPD4	.11	**.67**
BPD5	.02	**.74**
BPD6	.12	**.47**
BPD7	**.39**	.26
BPD8	**.58**	.22
BPD9	**.60**	.10
BPD10	**.63**	−0.04

Note. NVS = Narcissistic Vulnerability Scale; BPD = McLean Screening Instrument for Borderline Personality Disorder. Loadings targeted to be close to 0 were greyed. Loadings with strength > 0.30 were bolded.

RMSEA = 0.068[.060, 0.076]; SRMR = 0.046. The method bias accounted for 18% of the variance in BP and 12% in VN. The strength of the factor loadings for BP ($M = 0.30$) and VN ($M = 0.37$) was moderate. The strength of the cross-loadings was also moderate for both BP ($M = 0.27$) and VN ($M = 0.33$). Some BP items, however, appeared to be better indicators of VN (e.g., *Have you often felt that you had no idea of who you are or that you have no identity?*). The latent correlation between these constructs was moderate ($r = 0.52$; $p < .001$).[1] Hence, the first hypothesis that BP and VN are distinct yet related constructs, was supported, albeit only partially.

4.3. VN's and BP's relation to higher order values

4.3.1. Confirmation of the underlying circumplex structure of higher order values

The difference between circumplex and quasi-circumplex structures

is that the former has equal communalities and spacing, whereas the latter can have either equal commonalities or spacing. Regarding higher order values, we expected a circumplex structure in which each value is displaced at the length of 90°, hence we did not test quasi-circumplex solutions. The model fit indices suggested that higher order values indeed assume a circumplex structure, $\chi^2_{(4)} = 6.36$; $p = .174$; CFI = 0.985; RMSEA = 0.041[.000, 0.099]; SRMR = 0.036, therefore, it is plausible to project an external variable on their conceptual space.[2]

4.3.2. Projection of VN and BP on the circumplex space of higher order values

The structural summary statistics of BP and VN projected on the circumplex space of the higher order values are presented in Table 3 and illustrated on Fig. 1.

Both BP and VN demonstrated acceptable fit (i.e., > 0.70), and so structural summary statistics may be meaningfully interpreted. The estimates of elevation and amplitude did not exceed |.15|. Subsequently, the effects of the general factor and specificity of the content were negligible. The domineering locations of BP and VN, although in the same quadrant, were on opposite ends – while BP was located closer to openness to change, VN was located closer to self-enhancement.

5. Discussion

The current study aimed to investigate the underlying values of two clinical constructs: BP and VN. Our findings partially supported the notion that BP and VN are related, yet different theoretical concepts. Whilst they remained positively correlated, most of the items were identified as indicators of corresponding latent factors. Still, some items were identified as better indicators of an opposite factor. This study evidences that the distinction between BP and VN, although theoretically plausible, is empirically difficult (e.g., feelings of emptiness appear to better capture VN). Hence, to differentiate VN from BP, greater measurement precision than reported in this study is needed.

Furthermore, our study is the first to empirically verify, through the means of a formal test, the hypothesised circumplex structure of the higher order values (Schwartz, 1992). Due to the SSM, we were able to highlight the nuanced differences between BP and VN in their underlying motivational dynamics. We discovered that neither are likely to value fairness, honesty, and helping others, or safety, tradition, and humility. Simultaneously, BP is more likely to value novelty and change, while VN is more likely to value success and power. These divergences provide a possible explanation as to why borderline individuals pursue a varied and exciting life outside the control of other people (expressed, for example, through risk-taking behaviours; Lieb et al., 2004), while VNs are more prone to disagreeable behaviour (Krizan & Herlache, 2018). We believe our findings might facilitate an understanding of the relationship between these pathologies and, further, underpin future investigations of the motivational bases for various clinical constructs.

5.1. Limitations

Although the study has demonstrated divergences between the two clinical constructs under investigation, several limitations need to be acknowledged. First of all, we relied only on two self-report measures of VN and BP. Moreover, the scales used had different response and item formats (adjectives vs questions), which might have influenced the results obtained. We identified a significant amount of method bias in

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[1] We also tested a model without method factors, which was below acceptable threshold, $\chi^2_{(169)} = 609.27$; $p < .001$; CFI = .858; RMSEA = .087[.080, .094]; SRMR = .050. The strength of the factor loadings and cross-loadings (respectively) was adequate for VN (.59 and .11) and BP (.67 and .07). The latent correlation equalled $r = 69$. Moreover, we tested a confirmatory factor analysis model without method factors. The model fit was below acceptable thresholds, $\chi^2_{(188)} = 631.51$; $p < .001$; CFI = .857; RMSEA = .083[.076, .090]; SRMR = .056), the factor loadings were adequate for VN (.66) and BP (.69) and the correlation reached $r = .73$.

[2] We also tested a model in which hedonism was selected as indicator of self-enhancement instead of openness to change. The results confirmed the circumplex structure, although they were more robust, $\chi^2_{(4)} = 16.53$; $p = .002$; CFI = .939; RMSEA = .095[.051, .145]; SRMR = .056.

Table 3
Correlation-based Structural Summary Statistics with 95% CIs.

	Elevation	Amplitude	Displacement	Fit
Borderline personality	−0.04[−0.12, 0.03]	.10[.04, 0.17]	107.3[66.1, 152.5]	.89
Vulnerable narcissism	−0.08[−0.15, −0.01]	.08[.03, 0.17]	173.0[115.3, 228.1]	.76
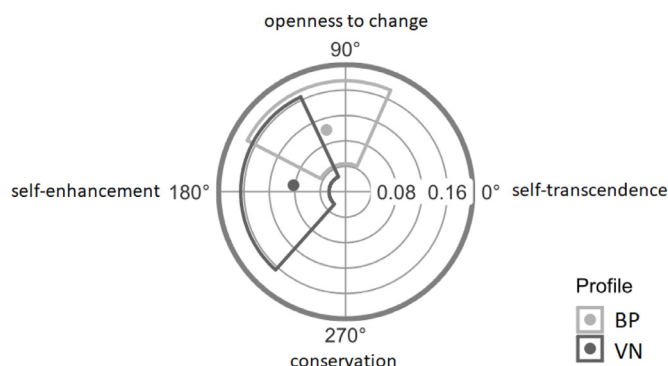
Fig. 1. Location of borderline personality (BP) and vulnerable narcissism (VN) within the conceptual space of higher order values.

both instruments, which also means our results should be interpreted with caution and as preliminary findings. Moreover, the study was limited only in comparing VN and BP to certain values. To overcome these limitations, future research should concentrate on a more thorough and systematic comparison between VN and BP using multiple measures of both constructs and compare them to a broader array of criteria.

Acknowledgement

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