

Perceptual Sensitivity to Facial Self Perception Associated With Pathological Narcissism

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Pathological Narcissism can be characterized by impairments in Self–Other Differentiation (SOD), a developmental process of acquiring a consolidated, integrated, and individuated sense of self. As hypothesized by Blatt, SOD develops at a) *perceptual* (e.g., facial perception) and b) *representational* (e.g., traits, mental states, and beliefs) levels. The relationship between narcissism and SOD at the perceptual (P-SOD) and representational (R-SOD) levels, which are hypothesized to develop in tandem from infancy on, has not been empirically investigated in pathological narcissism. This relationship has implications for assessment, treatment, and personality theory. In this study, we aim to explore the association between P-SOD, as measured by a face discrimination task, and the Pathological Narcissism Inventory (PNI-52), which measures vulnerable and pathological narcissism. Undergraduates ($N = 87$, 38% female) were presented with a series of images consisting of morphs blending the participant's face with the face of another, and were asked to make self/other appraisals on a Likert scale ranging from 1 (100% other) to 5 (100% self). The task measured sensitivity (the ability to detect the self in the image) and discriminability (the ability to discriminate between the two categories, self vs. other). We found that higher scores on sensitivity were associated with higher scores on pathological narcissism, $r(87) = 0.21$, $p < .05$, and was primarily driven by vulnerable narcissism, $r(87) = 0.23$, $p < .05$. We conclude that vulnerable narcissism is associated with the perceptual sensitivity to detect the self and suggests a link between R-SOD and P-SOD. P-SOD is a promising dimension that may provide insight into the mental representations of those with pathological narcissism.

Keywords: self and other differentiation, perception, narcissistic personality, mental representations, pathological narcissism

Pathological narcissism and narcissistic personality disorder (NPD; American Psychiatric Association, 2013; Kernberg, 1975, 1985) have been hypothesized to be associated with impairments in the representations of the self and others. These impairments reflect confusion between aspects of the self and other at the intrapsychic or representational level, even when a sense of physical boundaries remains intact. Indeed, this confusion between self and other is evident in the major defining criteria of NPD in both

Sections II and III of the *Diagnostic and Statistical Manual (DSM–5; American Psychiatric Association, 2013)*. *DSM* Section II emphasizes specific criteria that privilege the grandiose aspects of narcissistic disorder (e.g., exploitativeness, entitlement, lack of empathy, and need for admiration)—now generally considered to be inadequate in understanding the complexity of narcissistic pathology (Cain, Pincus, & Ansell, 2008; Pincus & Lukowitsky, 2010; Ronningstam, 2009). By contrast, the Alternative Model of Personality Disorders (AMPD) introduced in Section III offers a hybrid, categorical–dimensional model that emphasizes impairments in self and interpersonal functioning (Criterion A) at different levels of severity, and pathological traits (Criterion B) such as grandiosity and vulnerability. The AMPD draws heavily on Blatt's (1991) model of the cognitive morphology of psychopathology whereby the level of self and interpersonal functioning reflects the underlying level of representational organization (Bender, Morey, & Skodol, 2011; Skodol, Bender, & Morey, 2014).

Difficulties with self and interpersonal functioning of NPD are thought to stem from impairments in Self–Other Differentiation (SOD; Blatt, 1991, 1995, 2008; Diamond, Yeomans, Stern, & Kernberg, in press; Kernberg, 1975, 2007). SOD is the develop-

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mental process of acquiring a consolidated, integrated, and individuated sense of self in tandem with mature and reciprocal modes of interpersonal relatedness that are characterized by mutual attunement, connection, and gratification (Blatt, 1974, 1991, 1995, 2008; Diamond et al., 1995). While most discussion of SOD deficits have focused on the representational level (Blatt, 1974; Blatt, Chevron, Quinlan, Schaffer, & Wein, 1988; Blatt, Wein, Chevron, & Quinlan, 1979), SOD deficits have also been proposed to originate, at least partially, at the perceptual level (Piaget, 1955).

Representational SOD (R-SOD) reflects the differentiation between mental representations of self and other, which can be defined as cognitive and affective templates comprised of the individual's experience of the self and others and their interaction. P-SOD refers to the differentiation between self and other at the corporeal or physical level: It relies on an individual's sensory experiences that lead to bodily awareness, including a clear sense of one's own unique facial and physical features, and boundaries between self and other. P-SOD includes presymbolic nonverbal information gleaned through sensory experiences. Notably, Blatt proposed that the disturbances of perceptual boundaries between self and other are aspects of personality organization at the psychotic level (Blatt & Ritzler, 1974). Nevertheless, Blatt pointed out that the degree of boundary disruption exists on a continuum and is a useful criterion to assess the extent and nature of psychopathology in those with personality and affective pathology. Reality testing to distinguish between internal and external stimuli, or fantasy and reality, is lacking in individuals with psychosis. By contrast, in individuals with personality disorders, and NPD in particular, reality testing remains largely intact, but there are milder or transient impairments in distinguishing between self and other—likely reflecting confusion between aspects of the self and other at the intrapsychic or representational level (Gunderson, 1984; Kernberg, 1984, 1998).

Developmental Changes in SOD

Blatt (1974) harnessed a Piagetian developmental model to posit that schemas of self and significant others unfold through a sequence that begins with sensorimotor-enactive representation, in which self and other recognition is first defined by experiences of gratification and frustration and evolves through perceptual modes of representation that involve recognition of physical characteristics of self and other. Sensorimotor-enactive experiences are assimilated into more complex and mature modes of representation that involve the integration of disparate, even contradictory, aspects of self and other. These cognitive and affective schemas (or mental representations of self and other) pertain to “conscious and unconscious cognitive, affective, and experiential” components (Blatt, Auerbach, & Levy, 1997 p. 351). In developing his cognitive representational understanding of personality and personality pathology (Auerbach, 2017; Blatt, Wiseman, Prince-Gibson, & Gatt, 1991; Blatt et al., 1997), Blatt was influenced by psychoanalytic theory (Freudian ego psychology and Object Relations) as well as Piagetian developmental theory (Auerbach & Diamond, 2017).

Blatt's idea of the sequential development of P-SOD preceding R-SOD has been challenged by several theoreticians (Beebe & Lachmann, 2002, 2014; Fonagy, Gergely, Jurist, & Target, 2002; Stern, 1985). They proposed a simultaneous, interactive, or syn-

chronous development of P-SOD and R-SOD. Stern (1985) posited that SOD is preexisting in newborns, as evidenced through infants' capacity for sound, language, and memory (Eimas, Siqueland, Jusczyk, & Vigorito, 1971; Fló et al., 2019), and color and face discrimination (Bornstein, 1975; Tzourio-Mazoyer et al., 2002); this capability indicates that infants can recognize the world as separate from themselves and thus have the perceptual and cognitive proclivity for SOD. Researchers following Stern (1985) added the interpersonal context to the infant's capacity for SOD development wherein SOD develops through a spiral of dyadic, contingent co-constructed interactions, which further engender more complex mental representations (Beebe & Lachmann, 2002, 2014). Recent research supports the idea that SOD is driven by perceptual, cognitive, and affective networks that develop in an interpersonal matrix (Beebe & Lachmann, 2002, 2014; Steele, Steele, & Beebe, 2017).

Additionally, it has been shown that infants can indeed perceive contingencies, irregularities, patterns, and continuities in the environment as well as anticipate what events will occur by estimating probabilities through statistical relationships (Apps & Tsakiris, 2014; Saffran, Aslin, & Newport, 1996). Specifically, through the perception of contingent relations, an infant develops ongoing expectancies of sequences of events, within the self, within the other, and between self and other. This procedural form of representation is based on the predictability of events and the perception that contingent agency has over those events (Beebe & Lachmann, 2002; Jaffe, Beebe, Feldstein, Crown, & Jasnow, 2001; Stern, 1985; Tarabulsky, Tessier, & Kappas, 1996). Ultimately, infants generate self and other representations through these reciprocal contingency processes between the self and other.

Given the significance of perception in the development of selfhood, a recent movement to “reinstatate the physical body of the individual for a fuller understanding of the origins and maintenance of the sense of a unified, regulated and relational self” has been proposed (Steele et al., 2017, p. 59). Researchers (see Fotopoulou & Tsakiris, 2017 for a review) have defined the development of the self as the progressive integration of sensory and motor signals through embodied proximal interactions with significant others. It is through this integration that one builds mental models of the self as well as increasingly complex distinctions between self and other. Therefore, understanding the self and differentiating it from others can be interpreted as making inferences based on sensorimotor integration. For instance, interoception is the sense of feeling internal states such as hunger, pain, tiredness, thirst, heat, and cold. During development, recognition of interoceptive states may be influenced by interpersonal interaction with caregivers and others in the environment (Fotopoulou & Tsakiris, 2017). As such, even the bodily perceptions and their representations are fundamentally shaped by embodied interactions with other people in infancy.

SOD Assessments

Based on both psychoanalytic and cognitive developmental concepts, Blatt developed a Conceptual Level Scale (CLS; Blatt, 1974; Blatt et al., 1979, 1988). In the CSL, the conceptual levels of self and significant other are rated on a 9-point scale encompassing sensorimotor preoperational, concrete-perceptual, iconic, and conceptual levels. At the sensorimotor preoperational stage, others do not exist as

separate entities, but are described in terms of the gratification and frustration that they provide. The concrete-perceptual stage focuses on the perceived physical qualities of the other. At the iconic stage, the individual's perceptions of other are defined by their external and internal acts—respectively, how the other behaves and how he or she is perceived to think. Lastly, the conceptual stage reflects a developmental culmination: an integration of all previous levels into a complex, coherent understanding of self and significant others (Blatt et al., 1997, p. 360). Overall, Blatt's conceptual level scale, designed for both projective and narrative data, assesses P-SOD and R-SOD as distinct and sequential, rather than mutually influential, concepts in development.

Subsequent to Blatt's construction of CLS, Diamond and her colleagues (1991) developed the Self-Other Differentiation and Relatedness Scale (D-RS) to assess the developmental progression in the representations of self and other using responses to the Object Relations Inventory (ORI; Blatt, Bers, & Schaffer, 1993; Diamond, Kaslow, Coonerty, & Blatt, 1990). The ORI is a systematic open-ended interview probing respondents' descriptions of self and significant others with the goal of understanding mental representations. Raters using the D-RS assess self and other representations along a Likert-scale continuum ranging from undifferentiated states in which there is internal or external boundary confusion between self and other, to polarized states in which there are extreme positive or negative views of self and others, to mature, stable, coherent, and integrated representations in which self and other are well differentiated but reciprocally related. The centrality of the perceptual and bodily components of cognition and representation is fundamental to both the D-RS (Diamond et al., 1990, 1991) and the CLS (Blatt, 1974; Blatt et al., 1979, 1988), albeit in diverging ways. The D-RS focuses on boundary compromise and the collapse of self–other differentiation at the lower levels (Diamond et al., 1990, 1991), while the CLS focuses on the experience of need gratification and frustration (Blatt et al., 1979, 1988). In both scales, the foundation of all of representational states is postulated to be ingrained in the bodily and sensory experiences that underscore the connectedness between mind and body (Fonagy & Target, 2007). However, it should be noted that current methods of assessing both R-SOD and P-SOD, including the measure in this study, are based on verbal self-report, and thus do not necessarily access the presymbolic, perceptual realm per se, but rather a lexical approximation of it.

Narcissism and SOD

Patients with pathological narcissism are often characterized by a rigid, unstable (e.g., either overly inflated or deflated, or oscillating between the two; American Psychiatric Association, 2013) sense of self at the representational level (Cain et al., 2008; Ronningstam, 2005; Zeigler-Hill, 2006). In those with NPD, the lack of integration in self and other representations stems from a particular constellation of mental representations, the pathological grandiose self. This grandiose self involves a condensation of ideal elements of self and others with the real self; that is, the idealized elements one identifies in others are confused with the individual's actual capacities. Negative aspects of the self (e.g., vulnerability, weakness, shame, and inadequacies) are projected onto others who are systematically devalued; or others may be viewed in the light

of the ideal self-concept that characterizes the pathological grandiose self (Kernberg, 1975, 1984, 1985).

Those with pathological narcissism are characterized by fluctuations between grandiose and vulnerable self states that stem from difficulties regulating their needs for recognition, affirmation, and acknowledgment (Caligor, Levy & Yeomans, 2015; Diamond et al., *in press*; Kernberg, 1975, 1984; Ronningstam, 2016). Although research on the validity or reliability of these two dimensions as different prototypes or subtypes of the disorder has been inconclusive, a number of empirical studies have demonstrated two distinct dimensions of narcissism as grandiose/overt and vulnerable/covert narcissism (Dickinson & Pincus, 2003; Hendin & Cheek, 1997; Miller et al., 2011; Rathvon & Holmstrom, 1996; Rose, 2002; Russ, Shedler, Bradley, & Westen, 2008; Wink, 1991). Rosenfeld (1987) and Bateman (1998) have also distinguished between thick-skinned and thin-skinned narcissistic presentations characterized by somewhat different defensive structures and that necessitate somewhat different treatment approaches.

Individuals with grandiose narcissism have been found to be motivated by self-enhancement, the need for admiration, antagonism of others, and a tendency to externalize aggression, as well as core pathological traits that include exhibitionism, entitlement, and self-importance (Di Pierro, Costantini, Benzi, Madeddu, & Preti, 2019). On the other hand, individuals with vulnerable narcissism are characterized by shame proneness, helplessness, fragile self-esteem, chronic self-doubt, affect dysregulation, interpersonal dysfunction, and negative emotionality (e.g., dysphoric affect and negative temperament; Hibbard, 1992; Lobbestael, Baumeister, Fiebig, & Eckel, 2014; Pincus, Ansell, Cain, & Kenneth, 2009; Rose, 2002; Thomas, Wright, Lukowitsky, Donnellan, & Hopwood, 2012; Wink, 1991). The profiles of correlations found in these studies suggest that pathological narcissism may exist at different levels of organization, with those individuals with a higher functioning grandiose profile reporting less distress, although they may cause distress in others and those with a more vulnerable profile showing more severe pathology (Diamond et al., *in press*). Wright and Edershile (2018) posited that those with vulnerable narcissism are more likely to be organized at a borderline level. Both of these profiles have been associated with impairments in R-SOD (Diamond et al., 1999; Kealy, Ogrodniczuk, Joyce, Steinberg, & Piper, 2015).

Studies have demonstrated that R-SOD improved in patients with NPD or combined narcissistic and borderline pathology over the course of psychodynamic treatments (Calamaras, Reviere, Gallagher, & Kaslow, 2016; Diamond et al., 1999; Levy, Diamond, Clarkin & Kernberg, 2019; Mullin, Hilsenroth, Gold, & Farber, 2017). In these studies, patients shifted from one-dimensional, polarized representations to more integrated, flexible complex and multidimensional mental representations of self and significant others (Diamond et al., 1999; Levy et al., 2019). In addition, in several studies, borderline patients showed improvements in reflective function (Fischer-Kern et al., 2015; Levy et al., 2006) and changes from insecure to secure attachment representations (Buchheim et al., 2017; Levy et al., 2006) along with improvements in symptoms and psychosocial functioning over the course of one year of evidence-based psychodynamic therapy (transference focused psychotherapy, TFP; Yeomans, Clarkin, & Kernberg, 2015; but not in Dialectical Behavior Therapy or supportive therapy). In

these studies, a substantial portion of the patients (14% to 70%) had comorbid narcissistic and borderline personality disorders (Diamond et al., 2014; Hörz-Sagstetter et al., 2018). Although these studies suggest the importance of R-SOD and its impact on psychosocial functioning and personality psychopathology as well as its change through the course of treatment, they fail to address the perceptual facet of SOD.

Accumulated clinical experience and clinical theories suggest that R-SOD has its roots in sensory-motor aspects of early infantile perceptual experiences. Meanwhile, the presymbolic origins of self and object representations provide an important basis for the ongoing elaboration of self and object representations that can later be accessed in lexical form (Apps & Tsakiris, 2014; Beebe, Lachmann, & Jaffe, 1997; Freud, 1931; Piaget, 1955; Sandler & Rosenblatt, 1962). According to psychoanalytic understanding, perception—an active process in which ego transforms raw sensory data into meaningful percepts—constitutes an important aspect of mental representations (Sandler & Rosenblatt, 1962; Schimek, 1975). The hypothesized representational characteristics of those with narcissistic pathology, including a lack of integration of positive and negative representations of the self and other, and condensation between ideal and real aspects of self and other (Kernberg, 1975, 1984, 2018), should have correspondence at the perceptual level or P-SOD.

In our study, we aim to investigate the hypothesis that individuals with pathological narcissism who experience disturbances between self and other at the intrapsychic level (R-SOD), may also experience SOD disturbances at the perceptual level (P-SOD). Drawing on the face as an individual's most distinctive feature and undoubtedly the key feature for both self-identification and identification of others, (Haxby, Hoffman, & Gobbini, 2002; Mitchell, 1997), we developed a facial morphing task to assess P-SOD. We have previously demonstrated the SOD task's feasibility (Karan, Bravo, Grinband, Diamond, & Fertuck, 2017). Since our new measure helps us to learn about perceptual variability and psychophysical features in P-SOD, our goal was to test the hypothesis that impairments in P-SOD, as measured by psychophysical sensitivity and discriminability on the SOD task, are associated with narcissism as measured by the PNI-52 (Pincus et al., 2009).

Method

Participants

A convenience sampling approach was used, and a total of 87 undergraduates were recruited via subject pool, a web-based participant pool management system. All recruitment is conducted within a laboratory at a public university.

Measures

Pathological Narcissism Inventory. The PNI-52 is a 52-item self-report measure of pathological narcissism. Participants were asked to choose how well each statement describes them on 5-point Likert scale (0 = *not at all like me* to 5 = *very much like me*). There are seven dimensions of each pathological narcissism subscale. The narcissistic grandiosity subscale includes three dimensions including Exploitativeness (EXP), Grandiose Fantasy (GF), and Self-sacrificing Self-enhancement (SSSE). Exploitativeness assesses manipula-

tion in interpersonal relationships. Grandiose Fantasy assesses engagement in compensatory fantasies of gaining success, admiration, and recognition. Self-sacrificing Self-enhancement assesses the use of self-sacrificing acts to protect and bolster the inflated self-image. The narcissistic vulnerability subscale includes four dimensions including Contingent Self-esteem (CSE), Hiding the Self (HS), Devaluing (DEV), Entitlement Rage (ER). Contingent Self Esteem assesses fluctuations in self-esteem and dysregulation in the absence of external sources of acknowledgment, gratification and recognition. Hiding the Self assesses the avoidance of exposure to others with vulnerabilities, faults, and needs of the self. Devaluing assesses the disinterest and distancing of others who do not provide admiration and recognition. Entitlement Rage assesses feelings of anger and engagement with rageful acts when needs are not met (Pincus et al., 2009). The coefficient alphas for the seven PNI-52 scales were Contingent Self-Esteem (0.93), Exploitativeness (0.77), Self-Sacrificing Self-Enhancement (0.77), Hiding the Self (0.85), Grandiose Fantasy (0.87), Devaluation (0.91), and Entitlement Rage (0.85). The PNI-52 structure was validated via confirmatory factor analysis. The PNI-52 correlated negatively with our measure of self-esteem and empathy, and positively with shame, interpersonal distress, aggression, and borderline personality organization (Pincus et al., 2009).

Facial Morphing Task (Karan et al., 2017). Participants were presented with a series of face images, consisting of morphs blending the subject's face with the face of another using morph blends of 0%, 20%, 40%, 60%, 80%, and 100% (with 0% equivalent to "self" and 100% equivalent to "other"). Self/other appraisals were made using a Likert scale of 1 (100% other) to 5 (100% self). Images were presented using Matlab (www.mathworks.com) and PsychToolbox (Brainard, 1997). Research assistants instructed participants to respond as quickly as possible based on their first impressions of the facial stimuli.

Procedure

Participants were invited for two sessions. The first appointment took one hour to complete. After obtaining informed consent, a digital photograph of the participant's face with a neutral impression was taken. During the same appointment, participants completed self-report measures through QUALTRICS (Qualtrics, Provo, Utah, www.qualtrics.com). After the first appointment, Adobe Photoshop CS5 (www.adobe.com) and Abrasoft Fantamorph (www.fantamorph.com) were used to morph the face of the participant to varying extents: 0% (self-image, no morph), 20%, 40%, 60%, 80%, 100% (other image, no morph). The face of the participant was morphed with eight unfamiliar faces from different races and genders chosen from the NimStim stimulus set (Tottenham et al., 2009). During the second appointment (lasting approximately 15 min), participants performed the SOD Task.

Statistical Analyses

We used signal detection theory (Green & Swets, 1966) to assess two aspects of perceptual processing: a) perceptual sensitivity (the propensity to detect features of self in the image) and b) perceptual discriminability (the ability to discriminate between the self and other categories). Perceptual sensitivity was assessed by computing the point of subjective equivalence (PSE), which corresponds to the

morph position at which subjects respond with a rating of $(\text{min} + \text{max})/2$, that is, the midpoint of the psychometric function. Discriminability was assessed by computing the slope of the psychometric function at the PSE as $\text{slope} = (\text{rating}_{75} - \text{rating}_{25})/50$ where rating_{25} is the rating at a morph value judged to be 25% of the psychometric range (Fertuck, Grinband, & Stanley, 2013).

We hypothesized that greater narcissism scores would be associated with higher likelihood to judge the image to be “self” or an increase in the rating. There are two main ways that “self” judgments could increase. Sensitivity for detecting self could increase with narcissism, causing a rightward shift in the psychometric function (Figure 1A), or discriminability could improve with narcissism, causing an increase in the slope of the psychometric function (Figure 1B).

Results

Eighty-seven participants (38% female) completed both of two sessions of the study. The age range was between 18 and 42 ($M = 21.37$ with $SD = 4.6$). Fifty-seven percent of the sample reported low income household, 30% reported middle class, and 10% reported upper-middle class. Forty-seven percent identified themselves as Hispanic or Latino(a). Twenty-nine percent identified themselves as more than one race, 23% identified as White, 15% identified as Black/African American, 24% identified as Asian, and 6% identified other racial categories (e.g., Indian Native or Pacific Islander).

The psychometric function, representing subjective rating as a function of objective stimulus morph, is plotted for the entire sample (Figure 2A). The mean PSE across the sample was 35.8 ($SD = 6.5$). The mean slope across the sample was -21.4 ($SD = 7.6$). We compared individuals at the bottom quartile of vulnerable narcissism scores (<25%) with those at the top quartile (>75%). The PSE was greater for the more narcissistic individuals (Figure 2B), consistent with the sensitivity prediction (Figure 1A). However, there did not appear to be any change in slope. A subject-wise analysis was performed where individual PSEs were plotted against individual narcissism scores (see Figure 3). PSE was positively correlated with pathological narcissism, $r(87) = 0.21$,

$p = .05$, Figure 3A. We repeated the analysis for two main subscales of the PNI-52 that is, vulnerable and grandiose narcissism. PSE was correlated with vulnerable narcissism, $r(87) = 0.23$, $p = .03$, Figure 3B, but not grandiose narcissism ($p = .23$). Furthermore, there was no significant relationship between the slope of the psychometric function, discriminability, and pathological narcissism ($p = .82$) or the two subscales, grandiose ($p = .58$) and vulnerable ($p = .50$) narcissism.

Discussion

Our results showed that the PSE, but not the slope, is positively correlated with pathological narcissistic features. That is, individuals with high scores on pathological narcissism, particularly vulnerable narcissism, were more likely to rate the facial morphs as similar to themselves. This suggests that pathological narcissism influences the perceptual sensitivity to detect features of the self in others.

Notably, there were no differences in perceptual discriminability, that is, the slope of the psychometric function, between individuals with low and high levels of pathological narcissism. The lack of significant differences in discriminability suggests that the perceptual distance between the “self” and “other” categories is not affected by pathological narcissism. A correlation between slope and narcissism would suggest that individuals with high levels of pathological narcissism have better sensory processing of faces than those with low levels of pathological narcissism. Moreover, our results are consistent with the intuition that low-level sensory encoding of facial stimuli should not be affected by high-level cognitive processes like personality traits. However, our data do represent a nonclinical population, and it is theoretically possible that pathological narcissism could affect discriminability in NPD, as assessed by semistructured clinical interviews such as The Structured Clinical Interview for *DSM-5* for personality disorders (SCID-5-PD).

Our data show that vulnerable, but not grandiose, narcissism affects sensitivity to detect “self.” It is noteworthy that while grandiose narcissism is associated with extraversion, antagonism, and low neuroticism, vulnerable narcissism is associated with

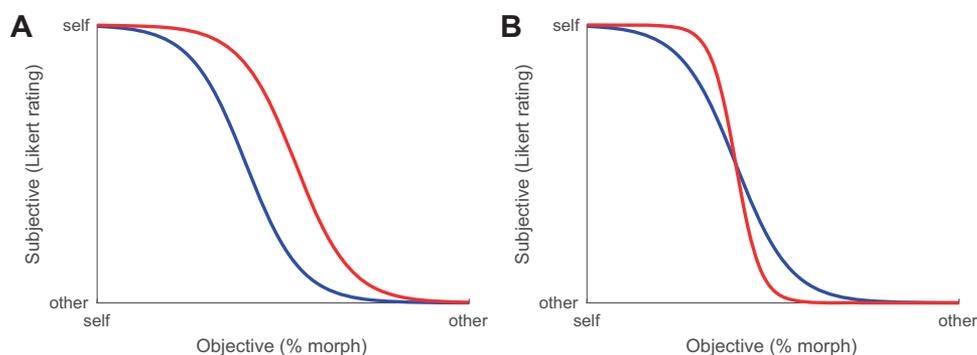


Figure 1. (A) Sensitivity. The blue and red curves represent individuals with low or high narcissism, respectively. A rightward shift of the red curve, relative to the blue curve, indicates that any given image is associated with a higher subjective rating. The greater sensitivity is also associated with a higher PSE. (B) Discriminability. A steeper slope of the red curve indicates that for stimuli less than the PSE stimulus, the subject is more likely to report “self” and for stimuli greater than the PSE stimulus, the subject is less likely to report “self”. See the online article for the color version of this figure.

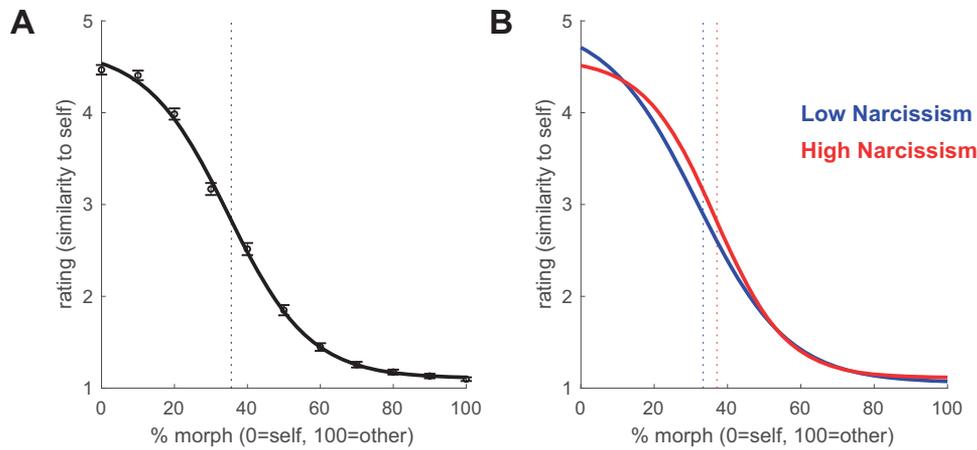


Figure 2. (A) Psychometric function. The subjective rating was plotted against the objective stimulus morph for the sample ($n = 87$). Error bars represent standard error. Dotted line represents PSE. (B) The sample was sorted into low and high vulnerable narcissism scores, bottom quartile versus top quartile, respectively. Low narcissism had a lower PSE (less likely to judge the stimulus as self) than the high narcissism group. See the online article for the color version of this figure.

antagonism and high neuroticism (e.g., higher levels of affective instability and of negative emotionality such as anger, anxiety, or depression, Miller & Campbell, 2008; Miller, Campbell, & Pilkonis, 2007; Miller et al., 2018). Furthermore, individuals with vulnerable, but not grandiose, narcissism were found to have higher levels of depression, anger, and anxiety (Tritt, Ryder, Ring, & Pincus, 2010). In aggregate, these studies have led researchers to suggest that those with vulnerable narcissism are more likely to have more severe psychopathology and to be organized at a borderline level (Wright & Edershire, 2018), as previously proposed by clinical theorists (Kernberg, 1984).

Furthermore, in a nonclinical sample, vulnerable narcissism might be more prevalent compared to grandiose narcissism. Tritt and colleagues (2010) found that vulnerability, but not grandiosity, is related to depressive temperament in a college sample. Addi-

tionally, in terms of social desirability, individuals might be less likely to report grandiose features compared to vulnerable features, which might render it difficult to assess grandiose narcissism in a high functioning sample.

In addition, individuals with vulnerable narcissism are found to be more help seeking (Ellison, Levy, Cain, Ansell, & Pincus, 2013), potentially leading to increased endorsement of their symptoms on the self-report measures included in our study. Indeed, individuals with grandiose narcissism may be less aware of or report fewer symptoms of distress—usually causing distress in others around them but not in themselves (for discussion see Miller et al., 2007). However, it is also important to note that the debate is ongoing in terms of differentiating and understanding grandiose and vulnerable presentations of NPD. A review by Wright and Edershire (2018) suggests a persistent

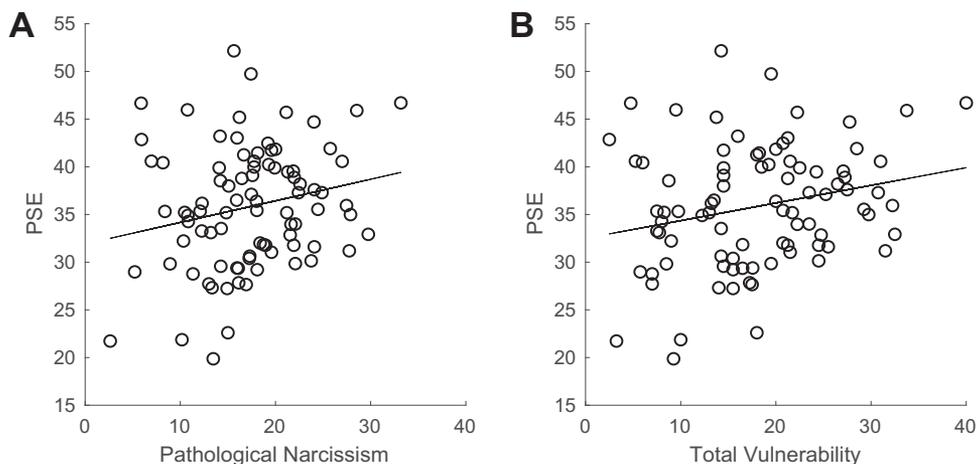


Figure 3. PSE increases with narcissism. (A) PSE is plotted against each subject's pathological narcissism score. A linear regression shows a significant relationship, $r(87) = 0.21$, $p = .049$. (B) PSE increases with vulnerable narcissism subscale score, $r(87) = 0.23$, $p = .030$.

lack of agreement on the definition and core features of narcissism; a host of measures have been developed to assess the construct, which in turn have contributed to the diversity of results and further lack of agreement. Other studies (Gore & Widiger, 2016) demonstrate that individuals with narcissism likely shift between grandiose and vulnerable states, sometimes on a daily basis, depending on social interactions (Roche, Pincus, Conroy, Hyde, & Ram, 2013).

It has been often suggested that the use of self-report assessment is limited particularly regarding response validity and generalizability (Thomas et al., 2012). Furthermore, explicit self-reported measures of pathological narcissism have long been criticized in terms of their validity and their inadequacy in capturing both vulnerable and grandiose types of narcissism (Cain et al., 2008; Miller, Lynam, & Campbell, 2016; Wright et al., 2013), although the development of the PNI-52 is the most promising and valid instrument to date. Given the limitations of explicit assessments of narcissism, our study could theoretically be improved by using implicit assessments of narcissism. While such measures would likely minimize the social-desirability biases often present in explicit measures (Fazio & Olson, 2003), we are not aware of any implicit measures of narcissism.

In terms of clinical implications, the proclivity to more readily see the self in facial morphs suggests that aspects of perceptual SOD may contribute to the difficulties with self and interpersonal functioning observed in individuals with pathological narcissism, including the lack of interest or investment in others (Kernberg, 2004, 2018), the deficits in empathy for others (Baskin-Sommers, Krusemark, & Ronningstam, 2014; Kernberg, 2004; Ritter et al., 2011), and the deficits in the capacity for social cognition, particularly facial emotional recognition (De Panfilis et al., 2018; Marissen, Deen, & Franken, 2012; Miller et al., 2007; Ronningstam, 2016). The perceptual sensitivity differences in those with high levels of pathological narcissism may also speak to self-focus and lack of attention to others, including the therapist in clinical situations. This perceptual sensitivity may also account for an oft-noted transference disposition of narcissistic patients to see the therapist as more similar to themselves than they actually are (Bradley, Heim, & Westen, 2005; Kernberg, 2018).

This tendency to project aspects of self or internal experience onto others is also evident in other studies indicating that those high on NPD traits (on the SCID-II screener; First, Spitzer, Gibbon, & Williams, 1997; Mazzi, Morosini, De Girolamo, & Guaraldi, 2003) show hypersensitivity to more subtle negative emotions or interpret neutral expressions as more negative, along with angry or anxious feelings, when presented with negative facial stimuli at varying levels of intensity (De Panfilis et al., 2018). In aggregate, these findings, including those from the current study, suggest perceptual correlates for the paradoxical combination of self-preoccupation and indifference to others, on the one hand, and hypersensitivity to social cues, particularly those associated with disapproval or rejection, on the other hand, that make individuals with narcissistic pathology so challenging to work with clinically.

Our study set out to detect perceptual variability and psychophysical biases in P-SOD. More specifically, we aimed to identify P-SOD factors associated with pathological narcissism. Our findings underline the importance of integrating perceptual/bodily aspects into the conceptualization and assessment of personality

pathology. Additionally, this study may motivate researchers and clinicians to further explore not only the representational correlates of those with pathological narcissism, but also perceptual correlates, as they may lead to maladaptive coping strategies and problematic interpersonal relationships.

Conclusion

Psychoanalytic theorists have postulated that pathological narcissism is associated with impairments in self and other representations at the intrapsychic level (Blatt, 1991, 1995, 2008; Diamond et al., in press; Kernberg, 1975, 2007). Furthermore, according to developmental studies and psychoanalytic understanding, perception constitutes an important aspect of mental representations (Sandler & Rosenblatt, 1962; Schimek, 1975). Freud previously proposed a link between R-SOD and P-SOD (Freud, 1925; Schimek, 1975; Sandler & Rosenblatt, 1962). Following this postulated relationship between R-SOD and P-SOD, our results are in line with the hypothesis that the characteristics of those with narcissistic pathology, namely impairments of R-SOD, show corresponding differences at the perceptual level as well (i.e., P-SOD).

Notably, this is the first study to assess SOD impairments in a nonclinical population with pathological narcissism. SOD impairments as stipulated by Blatt (Blatt, 1991, 1995, 2008) and Kernberg (1984) are mostly seen in different ranges in psychosis and personality disorders. Our findings highlight the importance of investigating SOD impairments in a nonclinical population. In the future, clinical studies with NPD and P-SOD will be necessary to establish further the clinical relevance of these findings; to that end, we are in the process of recruiting a clinical sample to understand the different presentations of NPD and its association with perceptual aspects of mental representations. Future studies should also investigate pathological narcissism using different methodologies, such as interviews, informant reports, clinician reports, performance-based measures, and lab tasks, as well as different analytic techniques (e.g., person-centered approaches, as suggested by [Thomas et al., 2012]). In conclusion, in this article we link two areas in which Blatt made major contributions—the study of mental representations and the nature of narcissistic pathology—with the goal of both honoring and extending his work.

摘要

摘要: 病态自恋的特征是自体-他人分化(SOD)上的缺陷, SOD是获得稳固的、整合的、个性化的自我意识的发展进程。根据布拉特(Blatt)的假设, SOD是在 a) 知觉层面(如: 面部感知)和 b) 表征层面(如: 特征、心理状态、信仰)发展起来的。自恋与知觉层面(PSOD)和表征层面(R-SOD)的SOD的关系, 是被假设从婴儿期开始就连接在一起发展起来的, 还尚未在病理性自恋上进行过实证调查。这种关系对于评估、治疗 and 人格理论都有含义。本研究旨在探讨由人脸识别任务测量的知觉层面SOD, 与测量脆弱和病态的自恋的病理性自恋量表(PNI-52)之间的相关性。被试大学生们(共87人, 38% 为女性)被呈现了一系列图像, 是由混合了变形的参与者的脸和另一个人的脸所组成的, 并被要求在里克特量表从1(100% 他人)到5(100% 自己)范围内进行自我/他人评鉴。这项任务测量的是敏感度(检测图像中的自我的能力)和辨别能力(在两个类别间区分自我与他人的能力)。我们发现, 敏感型得分高, 与病理性自恋得分高有相关性($r(87) = 0.21, p < .05$), 并主要受脆弱自恋的影响($r(87) = 0.23, p < .05$)。我们的结

论是脆弱的自恋与察觉自己的知觉敏感性相关,并提示了在R-SOD 和 P-SOD之间的一个联系。P-SOD是一个很有前景的维度,可以有助于洞悉病理性自恋者的心理表征。

关键词: Sidney Blatt, 自体与他人的分化, 知觉, 表征, 自恋人格, 精神病理, 心理表征, 夸大自恋, 脆弱自恋, 病理性自恋

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