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Short Communication

Can't take my eyes off me: Attentional bias of the vulnerable narcissist

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ABSTRACT

Body-dissatisfied individuals show attentional bias to photographs of oneself. The present study explored whether this relationship is moderated by narcissistic vulnerability. Seventy-nine female undergraduates completed questionnaires pertaining to narcissism and body satisfaction followed by a laboratory visit to engage in a dot probe task. At 175 ms exposure duration, greater narcissistic vulnerability predicted attentional bias towards oneself when participants had high body satisfaction relative to their low-satisfaction counterparts. An opposite pattern emerged at 500 ms exposure duration such that greater narcissistic vulnerability predicted attentional bias towards oneself when participants had low body satisfaction. These observations suggest that in response to stimuli that pose a threat to self-representation, narcissistically vulnerable individuals may engage in attentional processing strategies to maintain their self-representation.

Pathological narcissism refers to the use of maladaptive regulatory strategies to cope with threats to aspects of one's self-representation (Pincus et al., 2009). There are two proposed phenotypic expressions of pathological narcissism, namely narcissistic grandiosity and narcissistic vulnerability. Narcissism is most often associated with arrogant, domineering attitudes and behaviours that enhance one's self-representation, which is captured by narcissistic grandiosity. However, little research has examined narcissistic vulnerability, which can be described as the experience of helplessness, low self-esteem, and shame in response to threats to self-representation.

One way to determine threat to self-representation is through examination of the attentional processing of threatening stimuli. Such motivationally salient information captures attention, which serves an adaptive function to initiate a defensive response (Schupp, Junghöfer, Weike, & Alfons, 2004). Body satisfaction is one aspect of self-representation that may be well suited to the examination of attentional processing in vulnerable narcissists. First, vulnerable narcissism is negatively related to body satisfaction (Swami, Cass, Waseem, & Furham, 2015). Second, body-dissatisfied individuals demonstrate an attentional bias towards their own photographic image. Blechert, Ansorge, and Tuschen-Caffier (2010) found that patients with anorexia nervosa evidenced an attentional bias—faster reaction times to self versus other photographs—compared to nonpatients. Third, vulnerable narcissists have an attentional bias towards negative words like “stupid, weak”, implying a “hypersensitivity to negative evaluation, which in turn makes it difficult to direct attention away from potentially ego-threatening content” (Krusemark, Lee, & Newman, 2015, p. 17).

This study examined the links among the three constructs of body satisfaction, attentional bias, and vulnerable narcissism. In view of the above bivariate connections currently established in the literature, it was hypothesized that body-dissatisfied individuals would demonstrate attentional bias to self photographs. However, does this relationship depend upon one's degree of vulnerable narcissism? Given the latter's hypersensitivity to ego-threatening stimuli, exposure to self photographs might be particularly threatening for the body-dissatisfied narcissist. If correct, then perhaps narcissism serves a moderating function in the body image–attentional bias connection. Such was the purpose of this exploratory investigation.

1. Method

1.1. Participants

Female participants were recruited since body dissatisfaction is more prevalent among females compared to males. Undergraduates ($N = 79$) volunteered their participation in this study approved by the appropriate Research Ethics Board. The volunteer pool ceased at the end of term, thus ending data collection. Participants received bonus points towards their final course grade upon completion of the

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study. The age of participants ranged from 17 to 47 ($M = 20.27$, $SD = 5.73$). As part of a larger study, participants were required to be right-handed and a nonsmoker.

1.2. Measures

1.2.1. Brief-Pathological Narcissism Inventory

The Brief-Pathological Narcissism Inventory (B-PNI; Schoenleber, Roche, Wetzel, Pincus, & Roberts, 2015) is a 28-item self-report measure of pathological narcissism that produces two subscales; narcissistic grandiosity and vulnerability. Respondents rate how much they agree with each item on a 6-point scale ranging from 0 (*not at all like me*) to 5 (*very much like me*). Higher scores reflect greater narcissism. In the present study, Cronbach's alpha index of internal consistency was $\alpha = 0.85$ (item $M = 2.52$, $SD = 0.85$) for grandiosity and $\alpha = 0.89$ ($M = 1.77$, $SD = 0.88$) for vulnerability.

1.2.2. Body Image States Scale

The Body Image States Scale (BISS; Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002) is a six-item scale that measures an individual's evaluative and affective body image states, assessing domains such as physical appearance, body size and shape, weight, attractiveness, and looks. Higher scores on each of the nine-point response items reflect higher body satisfaction. In the present study, internal consistency was $\alpha = 0.80$ (item $M = 5.40$, $SD = 1.32$).

1.3. Procedure

Participants completed an online battery of questionnaires including the B-PNI and BISS followed by two separate laboratory appointments. During the first one, 30 photographs were taken from eight different angles (0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315°) and three different poses: full portrait of the entire body, a seated portrait of the entire body, and head and shoulder portrait. During the second laboratory visit, participants engaged in a dot probe task during which they were exposed to three types of photographs: photographs of oneself (self), photographs of an anonymous female student (other), and blackened silhouettes of another anonymous female student (neutral). The latter served as neutral stimuli devoid of any recognizable details of the face or body. Dot probe trials began with a fixation cross in the center of the screen, followed by the onset of a "threatening" photograph (i.e., either a self or other photograph) and a neutral photograph, each aligned horizontally beside one another on a television via Inquisit v4 computer software (www.millisecond.com). The dot probe literature suggests that patterns of attentional vigilance and avoidance to threat may shift with increasing exposure duration to the stimulus of interest (Jasper & Witthoft, 2011). As an exploratory examination of this issue, photograph pairs had an equal probability of being presented for either 175 ms or 500 ms before a target probe (i.e., dot) was presented in the location of one of the former photographs. Participants were instructed to indicate the target probe's location as quickly as possible by pressing a designated key on a computer keyboard. Faster reaction times (RTs) to targets that replace a threat-related image reflect an attentional bias towards threat. The experiment order began with one practice block of 24 trials, consisting of only neutral/neutral photograph pairs, followed by two testing blocks consisting of 120 trials each and the presentation of threatening/neutral photograph pairs. Of the 240 test trials, 180 were valid (i.e., target probe appearing in the same location as the previously presented threatening photograph) and 60 were invalid (i.e., target probe appearing in the location opposite of the previously presented threatening photograph).

2. Results

Table 1 presents the descriptive statistics for the dot probe variables. A self- and other-attentional bias index (ABI) was calculated for each exposure duration of 175 ms and 500 ms as follows: [invalid threat trial RTs–valid threat trial RTs] – [invalid neutral trial RTs–valid neutral trial RTs] (Miskovic & Schmidt, 2010). In the interpretation of this metric, the assumption is made that attentional bias towards a stimulus results from an individual's attention being allocated to the location of the screen where the stimulus is presented. As such, greater attentional bias towards a stimulus is demonstrated by quicker RTs to target probes that appear in the same location as the stimulus (i.e., valid trial) and slower RTs to target probes that appear in the opposite location as the stimulus (i.e., invalid trial). Thus, larger differences between the RTs of valid and invalid trials for a stimulus indicate greater attentional bias towards the stimulus. In the case of little to no attentional bias, RTs for valid and invalid trials are similar, as attention is not allocated to any particular location on the screen. Thus, smaller differences between the RTs of valid and invalid trials for a stimulus indicate less attentional bias towards the stimulus. Conceptually, the ABI metric compares attentional bias of threatening photographs to neutral photographs. Larger ABI values represent greater attentional bias towards threatening photographs compared to neutral photographs. A self-attentional bias score (self-ABS) was then calculated for each exposure duration as follows: self-ABI – other-ABI. Larger self-ABS values represent greater attentional bias towards photographs of oneself compared to another anonymous female.

Two moderated multiple regression models were tested using the SPSS PROCESS macro for model 1 (Hayes, 2013). The first model investigated whether the regression of self-ABS at 175 ms (Y) on BISS (X) was moderated by B-PNI vulnerability (M). As revealed in Table 2, there was a significant BISS × vulnerability interaction. In other words, the effect of

Table 1
Means and standard deviations of RTs (ms) across dot probe variables.

Variables	175 ms		500 ms	
	Valid	Invalid	Valid	Invalid
Self	431.73 (68.44)	474.55 (69.57)	439.70 (64.53)	465.95 (69.82)
Other	447.70 (65.04)	466.58 (61.89)	447.69 (62.29)	449.47 (66.51)
Neutral	449.26 (62.58)	444.67 (63.15)	447.61 (59.60)	448.68 (63.21)

Note: $N = 79$. Standard deviations are in parentheses.

Table 2
Moderated multiple regression results of the unstandardized regression coefficients predicting self-ABS (Y) at 175 ms and 500 ms exposure duration from BISS (X) with B-PNI vulnerability (M).

Variables	*b* [95% CI]	*SE b*	*t*
Constant			
175 ms	26.23 [18.16, 34.30]	4.05	6.48**
500 ms	22.25 [12.28, 32.23]	5.01	4.44**
BISS			
175 ms	5.15 [0.04, 10.27]	2.57	2.01*
500 ms	−5.56 [−11.91, 0.80]	3.19	−1.74
B-PNI vulnerability			
175 ms	8.33 [0.17, 16.49]	4.10	2.03*
500 ms	2.16 [−7.22, 11.53]	4.71	0.46
BISS × B-PNI vulnerability			
175 ms	6.63 [1.96, 11.30]	2.35	2.83**
500 ms	−6.42 [−11.77, −1.07]	2.69	−2.40*

Note: $N = 79$. $R^2 = 0.11$ at 175 ms; $R^2 = 0.08$. at 500 ms. ABS = attentional bias score; BISS = Body Image States Scale; B-PNI = Brief-Pathological Narcissism Inventory.
* $p < 0.05$.
** $p < 0.01$.