Narcissism is considered to be a pathological form of self-love but the extent to which narcissists actually like themselves is unclear. The present study utilized the bogus pipeline technique in order to examine how narcissists actually feel about themselves. Participants were 71 women who completed measures of narcissism and self-esteem before responding to a self-esteem measure under either bogus pipeline or control conditions. Women with high levels of narcissism reported low levels of self-esteem in the bogus pipeline condition than the control condition. This suggests that women with high levels of narcissism may not actually feel as good about themselves as they often claim.

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than may be typical for them. We used the bogus-pipeline technique to foster this sort of situation (e.g., Jones & Sigall, 1971). The bogus pipeline technique promotes greater honesty on the part of the participant through the use of physiological equipment (e.g., a lie detector) that ostensibly allows the researcher to detect if individuals are attempting to lie. This technique has been successfully used in past research (e.g., Boysen, Vogel, & Madon, 2006) and was employed in the present study in order to gain a better understanding of the way narcissists actually feel about themselves. Our prediction was that individuals with high levels of narcissism would report significantly lower levels of self-esteem in the bogus pipeline condition than in the control condition. The rationale for this prediction was that the high levels of self-esteem reported by narcissists may not be entirely authentic as suggested by the psychodynamic mask model.

2. Method

2.1. Participants and procedure

Participants were 71 undergraduate women at the University of Southern Mississippi who received partial fulfillment of a research participation requirement in exchange for their participation. The mean age of participants was 21.41 years (SD = 3.83) and the racial/ethnic composition was 38% White, 48% Black, and 14% Other. It should be noted that the inclusion of race in the preliminary analyses did not affect the present results. Consequently, race will not be discussed further.

During the first phase of the study, participants completed the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979) and the State Self-Esteem Scale (SSES; Heatherton & Polivy, 1991) – along with other measures that are not relevant for the present study – via a secure website. The NPI is a true–false measure that captures narcissistic personality features (e.g., “I am more capable than other people”). The present research utilized the 37-item shortened version of the NPI that Morf and Rhodewalt (1993) adapted from Emmons’s (1987) factor analysis of the original NPI. This abridged instrument only includes items with factor loadings greater than .35 (Emmons, 1987) and eliminates duplicate items. The construct validity and internal consistency of the NPI has been previously demonstrated (Emmons, 1987; Raskin & Hall, 1981; Raskin & Terry, 1988). For the present sample, the internal consistency of the NPI was .86.

The SSES is a 20-item measure of self-esteem designed to capture feelings of self-worth across three domains: performance (e.g., “I feel frustrated or rattled about my performance”), social (e.g., “I feel that others respect and admire me”), and appearance (e.g., “I feel unattractive”). Responses were made on scales ranging from 1 (not at all) to 5 (extremely). The SSES has been shown to be a valid and reliable measure of state self-esteem (Heatherton & Polivy, 1991). For the present sample, the internal consistency of the SSES composite score was high (α = .91).

During the second phase of the study, participants attended a laboratory session and were randomly assigned to either the bogus pipeline or the control condition. In both conditions, participants were asked to complete the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) along with other measures that were intended to disguise the true purpose of the study. The RSES is a widely used 10-item measure of global self-esteem (e.g., “I take a positive attitude toward myself”) for which participants were asked to provide ratings of agreement based on how they generally feel about themselves using scales that range from 1 (strongly disagree) to 5 (strongly agree). Past research has demonstrated the construct validity and reliability of the RSES (Blascovich & Tomaka, 1991; Rosenberg, 1986). The internal consistency of the RSES was .84.

2.1.1. Bogus-pipeline condition

Participants in the bogus pipeline condition were told that they would be monitored by lie-detecting physiological equipment and videotaped for the duration of the session. This was done in order to create the impression that the experimenter would be able to detect dishonest responses. Participants were then escorted into a small room containing physiological testing equipment (i.e., galvanic skin response, automatic blood pressure monitor, Grass Model 78D polygraph) where they were seated in a recliner, connected to the physiological instruments, and restrained with arm straps. In order to enhance the believability of the situation, participants were asked to respond to several questions that would ostensibly allow the experimenter to confirm that the physiological equipment was functioning properly (e.g., “Tell me your name” and “Lie to me about the color of my lab coat”). Participants were again reminded that their physiological measurements were being collected for the express purpose of assessing their potential misrepresentation of attitudes (e.g., “We will be able to tell if you are lying”). Participants were instructed to read each item aloud from the RSES as it was projected on the screen in front of the participant and provide a verbal response that was recorded by the researcher.

2.1.2. Control condition

In accordance with past research (Boysen et al., 2006), the control condition was designed to be nearly identical to the bogus pipeline condition and differed only by the nature of the cover story. Participants were informed that they would be connected to the physiological equipment during the session for the purpose of allowing the experimenter to gain practice with the equipment. Before beginning the task, the experimenter clearly deactivated the physiological equipment (i.e., “I am turning the equipment off now”) and explained that the session would be videotaped for the sole purpose of allowing the experimenter to review laboratory procedures.

3. Results

Table 1 presents descriptive statistics for the measures in the present study. Preliminary analyses utilizing pre-manipulation narcissism and self-esteem scores confirmed that participants in the bogus pipeline condition did not significantly differ from participants in the control condition with regard to pre-manipulation (Phase 1) measures of narcissism (t < 1, ns) or self-esteem (t < 1, ns). In addition, the zero-order correlations between narcissism and post-manipulation (Phase 2) self-esteem emerged in the expected directions for the control (r = .43, p < .05) and bogus pipeline conditions (r = −.16, ns).

A hierarchical multiple regression analysis was performed to examine whether narcissism would be associated with lower levels of Phase 2 self-esteem under bogus pipeline conditions. Prior to conducting the analysis, the continuous variables were mean-centered (Aiken & West, 1991). The main effect terms of experimental condition (0 = control, 1 = bogus pipeline), narcissism, and self-esteem (Phase 1) were entered on Step 1 and the two-way interaction between experimental condition and narcissism was entered on Step 2. The results for this analysis are presented in...
An experimental condition and self-esteem was significantly different at specific values of the moderator variable (one standard deviation above and below the mean for narcissism). We used these values for this interaction are presented in Fig. 1. Simple slopes tests revealed that the slope of the line representing the association between experimental condition and self-esteem was significantly different from zero for those with high and low levels of narcissism.

The total regression model was significant ($R^2 = .47$, $F[4,66] = 14.53$, $p < .001$) and the expected interaction between experimental condition and narcissism reached conventional levels of significance ($\beta = -26, t[66] = -2.09, p < .05, d = .51$). The predicted values for this interaction are presented in Fig. 1. Simple slopes tests revealed that the slope of the line representing the association between experimental condition and self-esteem was negative for those with high levels of narcissism ($\beta = -.39, t[66] = -3.03, p < .01, d = .74$) but that the slope of the line representing this association for those with low levels of narcissism did not approach conventional levels of significance ($\beta = -.01, t[66] < 1, ns$). These results show that individuals with high levels of narcissism reported lower levels of self-esteem under bogus-pipeline conditions than control conditions, whereas the self-esteem levels reported by those with low levels of narcissism did not differ between the conditions. In other words, individuals with high levels of narcissism reported lower levels of self-esteem when they believed that the experimenter would know if they were lying. This pattern suggests that narcissistic individuals are only willing to admit their relatively negative attitudes about themselves when they believe that others will be able to tell that they are lying.

4. Discussion

The present study utilized the bogus pipeline technique in an effort to elicit responses from participants that more accurately reflected their true feelings of self-worth. The results of this study found that women with high levels of narcissism reported higher levels of self-esteem in the control condition than the bogus pipeline condition. Further, narcissistic individuals reported feelings of self-worth in the bogus pipeline condition that were lower than those of individuals with low levels of narcissism. These results provide compelling evidence for the idea that the grandiose feelings of self-worth reported by narcissists may not be the entire story concerning how they feel about themselves. That is, women with narcissistic tendencies appear to report feelings of self-worth that are more positive than their actual attitudes about themselves. Our results provide support for the psychodynamic mask model of narcissism by showing that individuals with high levels of narcissism reported lower levels of self-esteem in the bogus-pipeline condition than the control condition. Thus, we found support for the idea that narcissists inflate their feelings of self-worth on self-report measures and that these overly positive self-evaluations may disguise underlying feelings of self-loathing and inferiority as suggested by Kohut (1966) and Kernberg (1975). These findings are important because they suggest that the bogus pipeline procedure has the potential to allow researchers to briefly peel back the grandiose facades that are worn by narcissistic individuals and catch a glimpse of how these individuals actually feel about themselves.

These results suggest that the positive feelings of self-worth reported by individuals with high levels of narcissism may be partially due to their attempts to convince themselves of their own worth. The fact that narcissistic individuals claim to like themselves may be at least somewhat helpful for them as they strive to bolster and maintain their tenuous feelings of self-worth. Another possibility is that narcissistic individuals may report positive feelings of self-worth in an attempt to present themselves to others in a favorable manner. To put it another way, individuals with narcissistic tendencies may intentionally portray themselves as feeling more positively about themselves than they actually do in order to influence how others perceive them. Narcissists
may engage in this form of impression management because of the social benefits that are associated with being viewed as possessing high self-esteem such as political competence (Zeigler-Hill & Myers, 2009) or romantic desirability (Zeigler-Hill & Myers, 2011). These results also suggest the intriguing possibility that individuals with high levels of narcissism may claim to possess high levels of self-esteem in order to gain the sorts of social rewards (e.g., romantic desirability) that will actually bolster their feelings of self-worth. It is important to note that these results diverge from those of earlier studies which suggested that the grandiosity of narcissists was largely a result of narcissists honestly believing they are superior to others rather than trying to convince themselves or impress others (e.g., Paulhus, 1998).

5. Limitations

Despite the fact that the present work suggests that revisiting the bogus pipeline procedure may be useful for revealing “hidden” attitudes, there are several limitations associated with the present study. First, the sample was comprised entirely of female college students. Future research should explore whether the present results generalize to samples where men and members of the population at large are well-represented. Second, it is impossible to rule out alternative explanations for the present findings. Future studies should examine outcome variables other than self-esteem to make certain that narcissistic individuals do not simply adopt more moderate response tendencies under bogus pipeline conditions. A third limitation is that narcissism scores were obtained using self-report measures which leaves open the possibility of response bias. Finally, future research could examine whether self-reported levels of narcissism actually remain stable under bogus pipeline conditions.

References