The Case for Using Research on Trait Narcissism as a Building Block for Understanding Narcissistic Personality Disorder

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The empirical literature on narcissistic personality disorder (NPD) is quite sparse with only a small number of studies singularly devoted to this important construct. Of the published articles on NPD, the majority (approximately 80%) are either of a theoretical nature or present data from a case study perspective. There is, however, a thriving and growing literature on trait narcissism. In comparison to NPD, trait narcissism is viewed as a continuous construct in which no attempt is made to make dichotomous decisions of a clinical nature. Recent data suggest that research on trait narcissism is relevant to NPD as self-report scores are substantially correlated with the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., American Psychiatric Association, 1994) interviews of NPD and generate a five-factor model personality profile that is congruent with expert ratings of prototypical NPD. We review the literature on trait narcissism in relation to implicit and explicit aspects of self-esteem, self-presentation, decision making, relationships, work performance, and externalizing behavior (e.g., aggression). Ultimately, we argue that this literature might be used as a stepping stone toward the development of a better empirical understanding of NPD and its nomological network.

Keywords: five-factor model, review, social personality

Despite substantial and long-standing interest in the construct of narcissism and narcissistic personality disorder (NPD) from psychiatry, psychology, and the lay public, there is only a limited amount of empirically oriented research on NPD. This lack of data is a concern given recent epidemiological data that suggests that NPD is far more prevalent in the general population (i.e., 6.2% lifetime prevalence) and among younger individuals (i.e., age 20 to 29; 9.4% lifetime prevalence; Stinson et al., 2008) than was once thought (see Torgersen, 2005, for a review). A search of peer-reviewed publications with "narcissistic personality disorder" in the title using PsychInfo yielded 113 independent publications. This is in contrast to searches on other Diagnostic and Statistical Manual of

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Mental Disorders (4th ed., DSM–IV; American Psychiatric Association, 1994) personality disorders (PDs) like borderline PD, which yielded 1,571 publications. Of these 113 publications focused on NPD, only 22 reported results from empirical studies (19.5%); the remaining studies were either theoretical in nature or reviews of various theories of NPD in which no new data were presented (n = 69; 61%), or presentations of one or more case studies (n = 22; 19.5%). We believe that the current state of affairs represents an imbalance between theory construction and the production of empirical data. As such, the nomological network surrounding NPD remains speculative in nature.

One potential strategy to address the theory-data imbalance in the research literature on NPD would be to turn to outside, nontraditional sources for empirical data and tools for stimulating future relevant work. There is a substantial empirical literature surrounding trait conceptualizations of narcissism in which narcissism is viewed as a continuously organized trait dimension. This type of research is typically conducted in the field of social-personality psychology, but can also be found in clinical, organizational, and developmental psychology, among other fields. This conceptualization of narcissism differs from *DSM-IV* NPD in that it is (a) conceived of

in a dimensional rather than categorical manner (which is supported by analyses finding no evidence of taxonicity; see Foster & Campbell, 2007), (b) focuses on nonclinical populations, and (c) relies on self-report assessments rather than clinical ratings or interviews. We believe that the approaches used in the study of trait narcissism, both survey based and laboratory-experiment based, can provide a useful framework for future research on NPD. Furthermore, the study of trait narcissism has resulted in a significant body of literature that might be useful for increasing the understanding of NPD.

Is Self-Reported Trait Narcissism Relevant for Understanding NPD?

Measuring Trait Narcissism

Integral to contemporary conceptualizations of trait narcissism is the proposition that narcissism is part of "normal" psychology; that is an individual's level of narcissism is a matter of degree rather than type. Researchers often use the term *narcissists* to describe individuals at the upper end of the continuum of normal narcissism, but this is just a matter of convenience (such as the term *extroverts*) rather than an effort to define a clear category or taxon (Foster & Campbell, 2007).

There are several currently used assessments of trait narcissism; however, far and away the most common assessment is the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). In fact, Cain, Pincus, and Ansell (2008) reported that "since 1985, the NPI was used as the main or only measure of narcissistic traits in approximately 77% of social/personality research on narcissism" (pp. 642-643). As a result, it is impossible to discuss trait narcissism without discussing the NPI as the two, at this point in time, are inextricably linked. Although the NPI is the most commonly used measure of trait narcissism—and we think it measures a useful construct—we want to be clear that we do not consider it to be a perfect measure of narcissism. The NPI has a number of vocal critics and problems (e.g., Cain et al., 2008), especially with regard to its unstable factor structure (Kubarych, Deary & Austin, 2004) and negative relation with psychological distress (e.g., Trull & McCrae, 2002). Given this, we would welcome refinements of the NPI

and/or the development of superior measures of trait narcissism. We also want to be clear that our aim is not to suggest that clinical researchers adopt self-report trait narcissism measures such as the NPI as clinical instruments or that the literature on trait narcissism is entirely generalizable to NPD. Rather our goal is to introduce the literature on trait narcissism, most of which has been generated using the NPI, to a wider audience of researchers and clinicians who are interested in pathological variants of narcissism (i.e., NPD) as it is our belief that this body of empirical worth can serve as a stepping stone toward the development of an empirical literature on NPD.

The NPI is a self-report instrument loosely modeled after the description of NPD put forth in DSM-III (3rd ed., American Psychiatric Association, 1980) that is scored dimensionally. Unlike self-report measures of NPD, the NPI does not include questions aimed at assessing each of the individual *DSM-IV* NPD symptoms. Using the factor structure derived by Raskin and Terry (1988) as a guide, the content of the NPI is thought to include constructs such as exploitativeness, entitlement, superiority, exhibitionism, vanity, self-sufficiency, and authority. It may not include some content found in the DSM-IV NPD construct such as a tendency to feel envious of others or to think others are envious of him or her.

To date, research using trait assessments of narcissism has been conducted primarily by social-personality psychologists and is published in journals not frequently read (or, at the very least, not cited) by clinical researchers and clinicians. As a result, this research has had relatively little effect on clinical notions of pathological narcissism (i.e., NPD). In the following review, we make two primary arguments. First, the literature on trait narcissism is relevant to our understanding of NPD as NPI narcissism scores are significantly correlated with *DSM–IV* NPD symptoms and create a personality profile that is highly consistent with prototypical ratings of NPD provided by researchers who have published on NPD (Lynam & Widiger, 2001) and practicing clinicians (Samuel & Widiger, 2004; see Miller, Gaughan, Pryor, Kamen, & Campbell, 2009). Second, individuals high on trait narcissism may meet some of the criteria for a personality disorder as put forth by the DSM-IV with regard to cognition, affectivity,

impulse control, interpersonal problems and functional impairment (although, as noted, there is no clinical cut-off with the trait measures of narcissism). Before delving into the details of this argument, we first discuss the construct of NPD.

Conceptualizing NPD

Although NPD is conceived of as a homogeneous construct in the DSM-IV, there are compelling data to suggest this is not the case. Findings from several studies (Dickinson & Pincus, 2003; Fossati et al., 2005; Russ, Shedler, Bradley, & Westen, 2008; Wink, 1991) support the notion that there are at least two forms of narcissism, which are represented to varying degrees in the DSM-based conceptualization of narcissism (including the NPI). Grandiose narcissism, which is the variant most strongly associated with the current DSM-IV conceptualization (Miller, Hoffman, Campbell & Pilkonis, 2008; Trull & McCrae, 2002), primarily reflects traits related to grandiosity, aggression, and dominance. We argued previously that this conceptualization is consistent with Freud's conceptualization of this personality ("libidinal") type. Vulnerable narcissism, which is more consistent with Kernberg's conceptualization, reflects a defensive and fragile grandiosity, which may serve primarily as a mask for feelings of inadequacy. Factor analyses of the DSM-IV NPD symptoms suggests that the DSM-IV NPD criteria set are either entirely (Miller et al., 2008) or primarily (i.e., six of nine symptoms; Fossati et al., 2005) consistent with the grandiose variant.

Ultimately, we believe that this heterogeneity represents a serious problem for the field as it constrains the reliability and ease of communication that occurs between clinicians and researchers in reference to NPD, as one cannot be entirely sure which variant of NPD is being studied/discussed. A number of researchers have suggested that this heterogeneity should be more clearly discussed and explicitly included in the DSM-V; an example of how this could be accomplished can be found in the *Psychody*namic Diagnostic Manual (PDM Task Force, 2006), which includes these two subtypes. For the sake of the current review, however, we limit ourselves to the grandiose form of narcissism as it is more consistent with the DSM-IV

conceptualization of NPD and expert and clinicians notions of prototypical cases of NPD (Lynam & Widiger, 2001; Samuel & Widiger, 2004). More important, the empirical literature on trait narcissism has typically, although not exclusively, focused on the grandiose variant of narcissism.

The Validity of Trait Measures of Narcissism to Serve as a Proxy for NPD

As noted earlier, to suggest that the literature on trait narcissism is relevant to clinical understandings of pathological narcissism (i.e., NPD), one must first accept that the primary measure used to study trait narcissism (i.e., NPI) is germane to this topic. This assumption has been debated by several authors (see Cain et al., 2008; Trull & McCrae, 2002). It is our contention that the literature on trait narcissism is pertinent to the study of NPD as new data have emerged that may allay some previous concerns. More specifically, Miller, Gaughan, et al. (2009) demonstrated that (1) NPI narcissism scores are significantly correlated with interview assessments of DSM-IV NPD and (2) the NPI and *DSM-IV* NPD interview ratings generate quite similar personality trait profiles. Reporting data from two samples (one clinical; one undergraduate), Miller, Gaughan, and colleagues reported a mean convergent validity correlation of .57 between the self-report NPI narcissism scores and DSM-IV NPD interview ratings. Given the use of two different assessment methods (i.e., self-report and interview), this is a substantial correlation. For the sake of context, we review how this compares with other convergent validity correlations for NPD instruments. Widiger and Coker (2001) reviewed all existing convergent validity correlations between *DSM-IV* PD instruments. They reported a median correlation between selfreport measures of NPD (the NPI was not included in this review) and a DSM-IV NPD interview ratings of .29; of the 18 effect sizes reported in their review, none were as large as the two effect sizes reported by Miller, Gaughan, and colleagues for the NPI. It appears that the NPI correlates more strongly with DSM-IV interviews of NPD than any of the other self-report indexes explicitly designed to assess DSM-IV NPD. In fact, the level of convergence found between the self-report NPI and NPD interview ratings was higher than the median convergent correlations reported by Widiger and Coker for any of the 10 *DSM–IV* PDs when using the same methodology (i.e., correlation between a self-report PD measure and a dimensional PD ratings derived from an interview).

Another means by which to test the relevance of trait narcissism is to compare the general personality correlates associated with trait narcissism scores with the trait correlates hypothesized to be prototypical of individuals with NPD. Two studies using four independent samples (Miller & Campbell, 2008; Miller, Gaughan, et al., 2009) have examined the correlations between the NPI and the 30 personality traits from a measure of the five-factor model of personality (FFM), the Revised NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992). One can compare the empirical personality profiles generated by correlating the NPI with the NEO PI-R (trait profile of NPI narcissism) with expert ratings of the prototypical individual with NPD using the FFM (prototypical profile of NPD). Expert ratings of the prototypical individual with NPD have been generated by (a) researchers who have published on NPD (Lynam & Widiger, 2001) and (b) practicing clinicians (Samuel & Widiger, 2004). Raters were asked to describe the prototypical individual with NPD on the 30 general traits of the FFM. Traits thought to be low in the prototypical case of NPD were given a "1" (e.g., *modesty*) whereas traits thought to be high were given a "5" (e.g., assertiveness). One can then assess the statistical convergence between these expert NPD ratings and the empirically generated correlations (i.e., between the NPI and the NEO PI–R). Across these four samples, the NPI to NEO PI-R correlates were consistently strongly correlated with the NPD expert ratings (rs ranged from .72 to .80). These results suggest that the personality traits most strongly correlated with the NPI are also the traits that clinical researchers and clinicians see as being most descriptive of individuals with NPD (e.g., low modesty and compliance [from Agreeableness]; high assertiveness and excitement seeking [from Extraversion]).

We also believe that trait narcissism is related to functional impairment in a manner that is consistent with the *DSM-IV* general criteria for a personality disorder. These criteria require

that the problematic personality traits or symptoms are manifested in two of the following domains: cognition, affectivity, interpersonal functioning, and impulse control. Trait narcissism is associated with problematic functioning with regard to cognition (i.e., perceiving self in an inflated manner inconsistent with the perceptions of others; e.g., John & Robins, 1994), affectivity (reacting with aggression following ego threat: Bushman & Baumeister, 1998; Jones & Paulhus, in press), interpersonal functioning (i.e., difficulty maintaining intimate relations: Campbell & Foster, 2002; Campbell, Foster & Finkel, 2002; acting aggressively with and without ego threat: Bushman & Baumeister, 2002; Reidy, Zeichner, Foster, & Martinez, 2008; engaging in externalizing behaviors: Miller, Campbell, et al., 2009; being disliked by others with increased exposure: Paulhus, 1998), and aspects of impulse control such as sensation or reward seeking (Foster & Trimm, 2008; Miller, Campbell, et al., 2009). Ultimately, trait narcissism—like NPD—is related to a number of problems that fall within the domains of cognition, affectivity, interpersonal functioning, and impulse control. It should be noted, however, that the impairment associated with both trait narcissism and NPD may be more nuanced and complex than that found for other PDs such as borderline PD in which the immense psychological distress experienced by the individual with these PD symptoms leads to overwhelmingly obvious impairment across multiple domains. In narcissism and NPD, the impairment may present itself most clearly in the interpersonal domain (i.e., Miller, Campbell, & Pilkonis, 2007).

In sum, we believe that the relatively thin empirical literature on NPD might be supplemented by the literature on trait narcissism. In what follows, we provide a brief sampling of the empirical findings that could be used as a starting point for future empirical work on NPD.

What Studies of Trait Narcissism Can Tell Us About NPD

What do the trait studies of narcissism add to the understanding of narcissism? In short, this body of research offers a range of empirical associations with narcissism and numerous theoretically relevant outcomes. These empirical findings include both simple associations (e.g., the link between narcissism and self-esteem), as well as more complex model testing (e.g., the interaction of narcissism and ego-threat to predict aggression). Methods used include self-reports, peer reports, longitudinal studies, computer-based cognitive assessments, and laboratory-based social psychological experiments. Below, we provide a brief review of some of the social-personality findings that might be pertinent for our understanding of NPD.

Implicit Cognitive Functioning

The topic of narcissism emerged from the psychoanalytic literature and, as a result, there has been a good deal of interest in uncovering the more unconscious processes associated with it. Fortunately, psychologists have developed a range of procedures designed to assess implicit or unconscious self-beliefs. The most common is the implicit association test (IAT) that assesses the speed of associations between any target (e.g., race) and positive versus negative stimuli. To assess implicit self-esteem, for example, the association between the self and positive words (e.g., good) is compared to the association between the self and negative words (e.g., terrible). This test has been used to test whether narcissism is related to low implicit self-esteem despite high levels of explicit or acknowledged self-esteem. Overall, there is little evidence that narcissism is associated with low implicit self-esteem (Bosson et al., 2008). Instead, narcissism is associated with an imbalanced implicit assessment of the self, with rapid, easy associations of the self with terms like dominant and assertive, but only average associations with terms like friendly and generous (Campbell, Bosson, Goheen, Lakey & Kernis, 2007). These findings suggest that narcissism is not associated, as often is speculated, with implicit or unconscious negative selfevaluation.

Explicit Self-Esteem

Another prominent issue in the discussion of narcissism is the association between narcissism and self-concept relevant constructs such as self-esteem as well as self-esteem stability. Across a number of studies narcissism has manifested a small to moderate correlation (\approx .30)

with self-reported self-esteem (Bosson et al., 2008). This correlation depends on how self-esteem is measured, however, with the highest narcissism self-esteem associations found with self-esteem measures that tap into social dominance, such as a scale that requires individuals to rate themselves relative to peers on traits like leadership and intelligence (Brown & Zeigler-Hill, 2004). With regard to self-esteem stability, which is typically assessed using multiweek diary entries of self-esteem, there does not seem to be any association between narcissism and self-esteem stability (i.e., narcissistic individuals do not seem to have more unstable self-esteem; Bosson et al., 2008).

Self-Presentation

One of the more interesting social questions regarding narcissism is how it is manifested. Empirical findings document a range of narcissistic self-presentational styles across different domains. Overall, a pattern emerges in which narcissism is linked to a self-promoting and sexualized self-presentational style in "static" assessments (e.g., involving a snapshot of behavior rather than behavior in an ongoing social context). For example, researchers examined the photographs of undergraduate students and found that self-reports of narcissism were related to features such as expensive clothing, attention to appearance and, for women, displays of cleavage and use of make-up (Vazire, Naumann, Rentfrow, & Gosling, 2008). Similar findings have been found on personal social networking pages (i.e., Facebook), in which narcissism was associated with posting of photos and information of a self-promotional and sexual nature (Buffardi & Campbell, 2008).

Interpersonal self-presentation adds another element to narcissistic self-presentation. Narcissistic individuals tend to use the first person pronoun more often when they talk about themselves (Raskin & Shaw, 1988). They are also judged as likable in "thin slices" of videotaped interactions (e.g., 30-s clips; Oltmanns, Friedman, Fiedler, & Turkheimer, 2004). This initial likability tends to diminish with time and increased exposure to the narcissistic individual. Individuals high on narcissism are likable in initial interactions with strangers because they are viewed as "entertaining" and "confident," but this likability decreases and even reverses

over a period of several social interactions (Paulhus, 1998). This finding may be particularly germane to clinical setting in which clients with these traits may come across as charming and gregarious at first but self-centered and externalizing with increased contact.

Self-Enhancement

Central to any conceptualization of narcissism is self-enhancement, or the effort to increase or protect the positivity of the self. The link between self-enhancement and narcissism has been found in multiple domains. Perhaps the most "classic" self-enhancement effect in social psychology is the "self-serving bias." This is the tendency to take personal credit for success, but to blame the situations or other individuals for failure (e.g., taking credit for an "A" on an exam, but blaming the professor for an "F"). Narcissism predicts the self-serving bias (Campbell, Reeder, Sedikides, & Elliot, 2000; Rhodewalt & Morf, 1998) and is especially predictive of internal, stable attributions for success (e.g., "I received an "A" on the test because I am brilliant"; Rhodewalt & Morf, 1998). Although the self-serving bias is typically reduced in close relationships—individuals find it difficult to steal credit from their friends—this is not as much of a barrier for individuals with higher narcissism scores. Indeed, the most pronounced relations between narcissism and the self-serving bias are seen in situations that demand interpersonal comparisons (Campbell et al., 2000). Although many people will blame the general situation for their failures, the most narcissistic individuals are willing to blame close others.

Another classic form of self-enhancement predicted by narcissism is the "better than average effect," or the belief that one is better than the average individual on a given attribute (e.g., intelligence, athletic ability). Overall, narcissism predicts the better than average effect, but this effect is limited to agentic traits such as intelligent and assertive. Narcissistic individuals do not typically report that they are more moral or more cooperative than others (i.e., communal traits; Campbell, Rudich & Sedikides, 2002).

Judgment and Decision Making

Individuals high in narcissism are overconfident—that is, they believe they know more than they actual do, are willing to bet on that knowledge, and are less able learn from their mistakes (Campbell, Goodie, & Foster, 2004). This pattern of distortion even includes maintaining false beliefs about the extent of one's knowledge. For example, narcissism predicts overclaiming, which is the willingness to claim knowledge of something that does not exist (e.g., "I know where the Cummela Mountain Range is"; "I know when U.S. President Murphy was in office"; Paulhus, Harms, Bruce, & Lysy, 2003). Narcissism is also linked with an overall bias toward "approach" goals. Narcissistic individuals focus on cues of reward and novelty to a greater extent than cues that signal impending punishment or nonreward (Foster & Trimm, 2008). This may lead to myopic behavior such as gambling, sexual risk taking, and overt self-enhancement as these individual see the potential short-term benefits (i.e., "If I brag about my new car, everyone will know about it.") to the exclusion of the long-term costs.

Aggression and Externalizing Behaviors

One of the most frequently studied social behaviors predicted by narcissism is aggression. Most of this research has employed laboratory aggression paradigms, in which participants receive bogus feedback from a fictional "other participant" and then are given the opportunity to behave aggressively toward this individual. These paradigms measure aggression as the willingness to administer electric shocks, noise blasts, or hot sauce to varying degrees of strength and duration (Bushman & Baumeister, 2002; Reidy et al., 2008). Across studies, narcissism is related to aggressive responding in both nonprovoked and provoked interactions (e.g., ego threat). For instance, narcissism predicts higher levels of shock toward an opponent following feedback that threatens the inflated sense of self (e.g., feedback on a writing assignment such as "This is the worst essay I have ever read"; Bushman & Baumeister, 2002).

Narcissism is also related to a host of additional externalizing behaviors such as pathological gambling, compulsive spending, and alcohol use (Lakey, Rose, Campbell, & Goodie,

2008; Luhtanen & Crocker, 2005). There are at least two pathways to these problematic behavioral outcomes. One is via excessive reward/novelty seeking that can lead to greater risk taking (Miller, Campbell, et al., 2009). The other pathway by which narcissism leads to maladaptive behaviors is via a low level of interpersonal agreeableness, with narcissistic individuals displaying a willingness to engage in behaviors (e.g., risky sex; substance use) without regard for the consequences that might be borne by others in part because they manifest little concern for the feelings or needs of others (Miller, Campbell, et al., 2009).

This pattern of behavioral dysregulation goes beyond the standard risk behaviors. Recent research, for example, has examined the link between narcissism and investing behavior. In simulated stock markets, narcissism predicted high level of risk taking. The result is enhanced performance in "bull" markets, but poor performance in "bear" markets. To provide a specific example, a recent study had participants create \$10,000 hypothetical stock portfolios in September 2008, right before a significant crash in the market. Five weeks later, narcissism predicted poorer performance (Foster, Misra, & Goff, 2009).

Interpersonal Relationships

The bulk of the research on narcissism and interpersonal functioning has focused on romantic relationships (i.e., dating and marriage). In the medium to long term, the effect of narcissism on relationships is decidedly negative. Narcissism predicts game-playing, infidelity, high levels of unrestricted sociosexuality, and an agentic view of sexuality (e.g., Campbell et al., 2002). Like other relationships, narcissistic individuals are initially liked as romantic partners as they are considered exciting and charming. This presentation makes it more difficult to avoid relationships with these individuals because doing so demands forgoing the immediate rewards (e.g., having a fun, confident partner) and focusing on the more negative longer term consequences (e.g., having a less committed and emotionally invested partner).

Organizational Performance

Narcissism plays a complex role in organizational behavior. Going back to the writings of Freud and Reich, narcissism has long been associated with leadership. Although the research data bear this out, the relationship is not a simple linear one. First, narcissism predicts "leadership emergence." That is, in a leaderless group, narcissistic individuals are more likely to rise to leadership positions (Brunell, Gentry, Campbell, Hoffman, & Kuhnert, 2008). This is a result of both the narcissistic individuals' desire to become leaders and because others tend to perceive these individuals as leaders, most likely as a result of their dominant selfpresentation. Second, narcissism predicts selfish and exploitative leadership behaviors that can result in short term gains but longer term costs. This is seen clearly when narcissism is assessed within a classic commons dilemma methodology (Campbell, Bush, Brunell, & Shelton, 2005). For instance, in one study, groups of four exploited a renewable resource (i.e., a forest). Selfish individual behavior would result in short-term individual gains (i.e., more money from logging), but rapid resource destruction that would be detrimental in the long term to all parties. As expected, narcissism predicted the rapidity of cutting down a forest (i.e., renewable resource). Thus, narcissism was related to success in the short term, but was maladaptive for both the narcissistic individual and the others who depended on the forest in the longer term (Campbell et al., 2005). Third, narcissism predicts variance in leadership performance. In a study of actual Chief Executive Officers (with narcissism operationalized as specific behavioral cues rather than self-reports), narcissism predicted aspects of corporate performance (Chatterjee & Hambrick, 2007). Narcissistic leaders made risky, public bets (e.g., acquisitions of high profile companies). When these bets worked, the company did well; when they failed, however, the results were often disastrous.

Etiological Data

The etiological data on narcissism are, unfortunately, still rather limited. Initial reports indicate that grandiose narcissism does not manifest a strong association with parenting styles, despite substantial theoretical links (e.g., Millon, 1981; Kernberg, 1975; and Kohut, 1977). Some data suggest parental overvaluation plays a role (Horton, Bleau & Drwecki, 2006: Otway &

Vignoles, 2006), and there are some data that suggest a small role of parental permissiveness (Miller & Campbell, 2008), but there are also data that demonstrate no meaningful relation between the two. There are no data supporting a link between grandiose forms of trait narcissism and parental mistreatment (e.g., abuse, neglect). Finally, there are good behavioral genetic data for the heritability of narcissism as assessed by the NPI (\approx .59; Vernon, Villani, Vickers & Harris, 2008).

Treatment

To date, there are no empirically validated treatments for NPD. There are, however, some data that suggest ways in which the negative interpersonal outcomes associated with trait narcissism might be reduced. For example, the existence of or induction of a close relationship between the narcissistic individual and another person can lead to more positive interpersonal functioning. For example, Konrath, Bushman, and Campbell (2006) assessed narcissism within a classic ego-threat and aggression paradigm. Typically, narcissistic individuals will manifest elevated levels of aggression toward those who criticize them; however, this aggression was successfully reduced by establishing a sense of closeness between the narcissistic participant and the "other." This was done experimentally by having the narcissistic individual believe that the other shared the same birthday or similar rare fingerprint (Konrath et al., 2006). Thomaes, Bushman, Orobio de Castro, Cohen, and Denissen (in press) recently demonstrated that narcissistic aggression in young adolescents can be attenuated for a short period as a result of self-esteem buttressing writing assignments (i.e., writing about values most important to them and why these values are important).

In terms of prosocial relational behaviors, the activation of communal thoughts in narcissistic individuals can lead to greater commitment to relational partners (Finkel, Campbell, Buffardi, Kumashiro & Rusbult, in press). This "communal activation" has been accomplished by subliminally priming narcissists with computerized images of caring individuals. It has also been assessed with self-reports in longitudinal studies and lab-based relational conflict studies. Together with the closeness manipulations in the aggression experiments, these findings suggest

that induced closeness and caring are candidates for more broad based social interventions aimed at reducing the negative interpersonal effects of narcissism.

A Portrait of Narcissism

The Theoretical Picture

The theoretical model of narcissism put forth in social-personality psychology has evolved in an iterative fashion with the growing body of empirical data. As it stands, there are two primary ways of thinking about narcissism. First, there is the basic or "minimalist" personality approach, which conceptualizes narcissism as a personality configuration that is grounded in more basic personality processes. Specifically, narcissism is seen as reflecting high levels of extraversion and dominance, and low levels of agreeableness or communion (Miller & Campbell, 2008; Paulhus, 2001; Samuel & Widiger, 2008). Second, there is the more social, relational approach to understanding. This class of models suggests that narcissism is part of a dynamic, self-regulatory system in which individuals engage in self-promoting or selfprotective social behaviors (e.g., associating with high-status others, attention seeking) and intrapsychic behaviors (e.g., fantasizing about success or fame) to maintain and increase selfesteem (Morf & Rhodewalt, 2001). Putting these two models together yields a hybrid model, which suggests that narcissism is grounded in basic personality traits, and that these traits shape narcissistic self-regulation. That is, narcissistic individuals will seek to increase their self-esteem and status via behaviors, cognitions, and emotions that pertain to social dominance and status.

The Profile

Taken together, the research suggests that narcissistic individuals will present as likable, socially extraverted, confident, and with careful attention to appearance. This presentation may change over time, with likability decreasing and

¹ To be clear, however, the level of personality pathology in these studies may be substantially lower than that found in psychiatric samples, so whether these approaches could be translated into therapies remains an open question.

being replaced by self-centeredness and arrogance. These individuals will have high selfesteem, display generally positive affect, and a relatively stable self-concept and will report being psychologically healthy (at least in nonclinical settings). However, there will be an imbalance in their self-conceptions both consciously and unconsciously, with positivity and importance placed relatively highly on qualities like power and status and less importance placed on constructs related to interpersonal connectedness. Demographically, these individuals are likely to be male rather than female (although the difference is not large) and younger rather than older (Foster, Campbell & Twenge, 2003; Stinson et al., 2008). There will be little clear link with childhood experiences, although they might describe their parents as permissive (Horton et al., 2006; Miller & Campbell, 2008). Finally, although these individuals do not typically report much psychological distress, they may present with some evidence of impairment in both "love and work."

Narcissistic individuals will have both several advantages and disadvantages in performance settings. Narcissistic individuals will perform well at initial leadership settings, in public, in situations that benefit from a willingness to take risks (e.g., going long in bull markets) and in short-term competitive contexts. They will perform more poorly at situations that demand ethical behavior, in nonevaluative/ private contexts, and in situations in which overconfidence and risk taking are detrimental to performance. In terms of potential negative consequences, narcissistic individuals in leadership positions can be highly destructive, making this personality construct quite important to consider. For example, although psychopathic individuals may do greater harm to a smaller number of individuals due to their combination of callous antagonism and impulsivity, narcissistic individuals may do greater harm to a larger number of individuals as they are calloused and antagonistic but manifest greater constraint, thus allowing them to assume (at times) prominent positions of power.

Narcissistic individuals will find it easy to start interpersonal relationships, and will enjoy these relationships initially. Their relationships will suffer in the longer run, however, as they exhibit behaviors such as game playing, control, infidelity, or deception. The worst interpersonal qualities of narcissistic individuals will be seen when they experience ego threat or rejection as it may result in anger or aggression.

Caveats and Conclusions

It is important to acknowledge again that the NPI has significant limitations particularly for use as a clinical instrument given the exclusive reliance on self-report data and the omission of an explicit assessment of impairment. In addition, the literature reviewed above has been generated largely through the use of college students, which may have implications for external validity, although meta-analytic reviews of the relations between personality disorder and basic traits do not find evidence of significant moderation by sample types (see Saulsman & Page, 2004). Instead, we argue that there is a substantial, broad, and interesting literature that exists on trait narcissism that has not received adequate attention as to how it pertains to NPD. It is our belief that this empirical literature can help spur future research that might use alternative measurement strategies and clinical and community samples to expand our knowledge of NPD. Such efforts might help to rectify the current situation in which the dearth of data on NPD has forced clinicians and researchers to rely on theoretical suppositions that have received little empirical attention. This may be increasingly problematic as there is evidence that trait narcissism rates are increasing (Twenge, Konrath, Foster, Campbell & Bushman, 2008) and the same may be true for NPD (Stinson et al., 2008). Given the detrimental behaviors associated with narcissism and NPD, it is time for the field to devote more empirical resources to this important construct and move from a highly theoretical orientation to an orientation reflecting a greater balance of theory and empirical evidence. We believe that the literature on trait narcissism can be used as an important building block in the construction of a science of NPD.

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Correction to Samuel et al (2010)

In the article, "An Item Response Theory Integration of Normal and Abnormal Personality Scales" by Douglas Samuel, Leonard Simms, Lee Anna Clark, John Livesley, and Tom Widiger (*Personality Disorders: Theory, Research, Treatment*, 2010, Vol. 1, No. 1, pp. 5-21), in the acknowledgments, Douglas Samuel was incorrectly listed as the author of the DAPP-BQ instrument. John Livesley is the correct author of the DAPP-BQ instrument.

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