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Envy Divides the Two Faces of Narcissism

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Abstract

Objective: To test psychodynamic assumptions about envy and narcissism by examining malicious envy in the context of narcissistic grandiosity and vulnerability. **Method:** In Study 1, students and community adults completed trait measures of narcissism, envy, and *schadenfreude*. In Study 2 participants relived an episode of envy, and cognitive-affective components of envy were examined in the context of both self- and informant- reports of their envy and narcissism. In Study 3, narcissism was linked to reports of envy covertly induced in the laboratory. **Results:** Vulnerable narcissism was strongly and consistently related to dispositional envy and *schadenfreude* (Studies 1-2), as well as to all cognitive-affective components of envy (Study 2). Furthermore, it facilitated envy and *schadenfreude* toward a high-status peer (Study 3). Grandiose narcissism was slightly negatively related to dispositional envy (Studies 1-2) and it did not predict informant reports of envy or cognitive-affective components of the emotion (Study 2). Finally, it did not exacerbate envy, hostility, or resentment toward a high-status peer (Study 3). **Conclusion:** The results suggest envy is a central emotion in lives of those with narcissistic vulnerability, and imply that envy should be reconsidered as a symptom accompanying grandiose features in the diagnosis of Narcissistic Personality Disorder.

Keywords: Narcissism; grandiosity; social comparison; envy; entitlement

Envy Divides the Two Faces of Narcissism

Envy has long been considered a central feature of narcissistic personalities. In fact, the Diagnostic and Statistical Manual of Mental Disorders IV (American Psychiatric Association, 1994) lists being “often envious of others or believing that others are envious of him or her” (p. 661) as one of the diagnostic criteria for Narcissistic Personality Disorder, along with other criteria such as self-importance, need for admiration, and entitlement. Despite the fact that clinical views exalt the importance of envy for narcissism, the precise role of malicious envy in manifestation of narcissistic personalities is yet to be elucidated. Contrary to the commonly held assumption that envy stems from narcissistic grandiosity, we present systematic evidence which demonstrates that envy arises within narcissistic *vulnerability*. Moreover, we propose that those exhibiting grandiosity are less prone to envy given their inflated sense of superiority. By utilizing rigorous methods and validated instruments of personality-social psychology, we shed light on years of psychodynamic theorizing and present the first systematic evidence on the role of envy in divergent manifestations of narcissism. This evidence has important implications both for differentiating narcissistic traits and for assessing their pathological manifestations.

Narcissism: The Grandiose and Vulnerable Selves

Although the concept of narcissism as a psychological characteristic was first developed by Freud (1905), critical contributions to understanding narcissism were made by self-theorists Otto Kernberg (1970, 1975) and Heinz Kohut (1971, 1977), who generally viewed narcissistic qualities as a result of “narcissistic injury” in early childhood where a grandiose, false self emerges uncomfortably alongside (i.e., “split” from) a sense of inadequacy and suppressed rage. However, each of these pioneers emphasized different developmental antecedents and structural features of narcissism.

Kohut's (1971) view, on one hand, is driven by the notion of *primary narcissism*, which he defined as a normal aspect of development reflected in a near-perfect state of need-satisfaction infants experience during first years of life. When this state is eventually interrupted due to inevitable shortcomings or absences of parental attention, infants compensate by developing unrealistically positive self-representations (i.e., the "grandiose self") which are ideally replaced by more realistic self-representations when overcoming developmental challenges (Kohut, 1971). Thus, Kohut views adult narcissistic personalities as *regressive*, that is developmentally arrested in some way. Specifically, narcissists are thought to preserve some displays of infantile grandiosity, especially self-centeredness and views of others as an audience, although these displays are *not* sufficient to quench these primitive narcissistic needs, whose unfulfillment leads to low self-esteem and shame propensity (Kohut, 1971, p. 185). In sum, Kohut (1977) emphasized the "depleted self" of narcissists, marked by repressed grandiosity, low self-esteem, and shame about their needs to display themselves to others.

Kernberg (1975), on the other hand, views narcissistic personality as a "pathological structure, clearly different from normal infantile narcissism" (p. 266). Given that narcissists view others primarily as means toward reflecting their own grandiosity, they feel entitled, they lack empathy, and can be exploitative and ruthless. Importantly, Kernberg (1975) stressed the importance of envy for narcissistic personalities. He observed, "...these patients experience a remarkably intense envy of other people who seem to have things they do not have or who simply seem to enjoy their lives" (p. 228). Given narcissists depend on perceiving themselves as superior to others, exposure to others "better" in some way is threatening; as a result of their envy, he thought, narcissistic individuals are likely to show contempt and derogate others. In short, Kernberg (1975) viewed narcissism as a character structure marked by grandiose fantasies,

overdependence on external admiration, and exploitativeness and ruthlessness toward others. Although he implies these qualities co-exist with “feelings of inferiority” and “dissatisfaction with life”, such feelings are masked by apparent superficial social adjustment and an assertive (often antagonistic) inter-personal style (p. 331).

Individual Differences in Narcissism. Given the long history of the construct, multiple measures of individual differences in narcissism have proliferated over the years (see Wink, 1991). While these measures have been generally inspired by the symptoms of NPD, they often assess a sub-clinical range of narcissistic qualities and should not be confused with diagnostic instruments (Foster & Campbell, 2007). The most popular measure of narcissism within personality and social psychology is the Narcissistic Personality Inventory (Raskin & Hall, 1981); based on the NPD criteria presented in DSM-III, it captures inter-related tendencies of authoritativeness, self-absorption, arrogance, and exploitative entitlement (Emmons, 1987) and has been used in majority of research on the construct. Note that the content of the measure focuses on grandiose qualities emphasized by Kernberg, and empirical research using the instrument has confirmed that those scoring high on the measure view themselves as superior to others in their lives (Campbell, Rudich, & Sedikides, 2002; Krizan & Bushman, 2011), react with vitriol and aggression against those threatening their grandiosity (Bushman & Baumeister, 1998) and eventually suffer relationship erosion (Paulhus, 1998a). However, NPI has been criticized given it does not adequately capture pathological aspects of narcissism such as low self-esteem, anxiety, and distress considered key to clinical manifestations of the syndrome (Pincus & Lukowitsky, 2010) and emphasized in the “depleted self” proposed by Kohut (1971).

In fact, there seem to be two distinct clinical themes in phenotypic expressions of narcissism which Cain and colleagues (2008) labeled narcissistic *grandiosity* and narcissistic

vulnerability. Moreover, these manifest in two largely orthogonal personality tendencies. In his seminal evaluation of multiple measures of narcissism, Wink (1991) found two orthogonal components, labeled Vulnerability-Sensitivity and Grandiosity-Exhibitionism. Rathvon & Holmstrom (1996) replicated the results and found that the NPI loaded on the grandiose component, consistent with a large literature indicating that NPI predicts grandiosity, exhibitionism, and egotism (see Morf & Rhodewalt, 2001, for review). Furthermore, the two narcissistic tendencies have distinct personality correlates, although both share self-absorption and an entitled inter-personal style. Whereas grandiose narcissism correlates positively with extraversion, low neuroticism, high self-esteem, exhibitionism, and exploitation, vulnerable narcissism correlates positively with high neuroticism, low self-esteem, and avoidant reactions to others (Buss & Chiodo, 1991; Hendin & Cheek, 1997; Miller & Campbell, 2008; Pincus, Ansell, Pimentel, Cain, Wright, & Levy, 2009). In sum, there is evidence for both the “depleted self” (Kohut, 1971) and the “grandiose self” (Kernberg, 1975) of narcissism, although they present independently across individuals in the general population.

Envy: The Only Unpleasant Sin

According to Smith and Kim (2007), envy is “an unpleasant, often painful emotion characterized by feelings of inferiority, hostility, and resentment produced by an awareness of another person or group of persons who enjoy a desired possession (object, social position, attribute, or quality of being)” (p. 47). Envy has drawn significant attention from various scholars and philosophers given its proclivity to engender a host of socially destructive behaviors such as hostility and aggression toward the advantaged, destruction of common or own goods in order to prevent the envied from enjoying them, and pleasure at the misfortunes of the envied, however undeserved (Schimmel, 1993; Zizzo & Oswald, 2001). Although envy often involves a

sense of injustice spurred by inequality, this envy-laden, subjective sense of injustice should be considered distinct from full-blown resentment given that the envied advantage is not deemed unfair by any collective, agreed-upon standard (Ben-Ze'ev, 1992). Envy “proper” is also often confused with jealousy. Although in common parlance the latter term is often used to indicate envy, proper jealousy involves a third party and is spurred by a fear of losing a possession (e.g., a loved one) to that third party (Salovey & Rodin, 1984).

As the Greek poet Hesiod put it, envy is typically “potter against potter”. That is to say, (1) envy arises from an upward social comparison with someone who is generally similar, with the obvious exception of the envied attribute, and (2) the nature of envied person’s superiority needs to be self-relevant to the envier in order to arouse strong feelings (Salovey & Rodin, 1984; Silver & Sabini, 1978; Tesser, 1991; see Smith and Kim, 2007 for review). Although such unflattering comparisons along important dimensions may be necessary, they are *not* sufficient to induce envy. As many writers have noted, the desired attribute generally needs to be perceived outside one’s reach in order for envy “proper” to manifest (Elster, 1998; Van de Ven, Zeelenberg, & Pieters, 2009). Thus, we typically envy others whose position in society is similar enough to ours as to arouse in us strong feelings of desert for what they have, with the object of desire being simultaneously viewed as out of reach (Ben-Ze'ev, 1992). Elster (1998) suggested this apparent contradiction to be at the heart of envy. According to him, envy “presupposes that I can tell myself a plausible story in which I ended up with the envied possession” (p. 169). Although envy has been traditionally studied as a discrete emotion or an emotional episode, some individuals are chronically predisposed to envy. These individuals tend to be emotionally vulnerable and to doubt their own competence, leading them to frequent envy experiences (Smith et al., 1999).

Finally, As La Rochefoucauld (1664) lamented centuries ago, “we are often vain of even the most criminal of our passions; but envy is so shameful a passion that we can never dare to acknowledge it”. The sinful nature of envy, then, is likely responsible for its protean character where it is “...suppressed, preempted, or transmuted to some other emotion” (Farber, 1966, p. 165). This raises significant challenges to studying the emotion, and later we describe how we met these challenges.

The Experience of Envy among Narcissists

Empirical research described above identified two distinct expressions of narcissistic tendencies, one centered on grandiosity and the other on vulnerability, spanning sub-clinical and clinical domains (Pincus & Lukowitsky, 2010; Russ, Shedler, Bradley, & Westen, 2008). Clinical accounts of narcissism described earlier strongly suggest that envy is a central characteristic of grandiose, but not vulnerable narcissistic features. Kernberg (1975) stressed the importance of envy for narcissistic grandiosity, which he saw emanating from narcissists’ need for superiority. This view remains largely unchallenged, partially because the links between grandiose narcissism and hostility (Bushman & Baumeister, 1998; Ruiz, Smith, & Rhodewalt, 2001) seem to support the notion that envy underlies narcissistic aggression (Hotchkiss, 2003). Moreover, research on how those with narcissistic grandiosity (i.e., those high on the NPI) react to threatening upward comparisons also seems to implicate envy, as these individuals show more hostility toward superior others (Bogart, Benotsch, & Pavlovic, 2004; Smalley & Stake, 1996). Finally, DSM-IV lists envy among other grandiose features as a symptom of Narcissistic Personality Disorder. In line with these observations, Pincus and Lukowitsky (2010) reasonably conclude that “narcissistic grandiosity is often expressed behaviorally through interpersonally exploitative acts, lack of empathy, intense envy, aggression, and exhibitionism” (pp. 426-427).

When it comes to *vulnerable* narcissism, however, envy is presumed less important. Kohut's (1971) observations suggest that narcissists' low self-esteem and feelings of inadequacy result in the self-focused emotion of *shame*, rather than on the other-focused emotion of envy. Given their "depleted self", vulnerable narcissists' emotions tend to focus on personal inadequacy and lead to shame due to their inability to meet desired standards of value, further promoting a sense of inadequacy, and ultimately descending into a self-perpetuating shame-rage spiral (Scheff & Retzinger, 1991; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996). This view is echoed by Pincus & Lukowitsky (2010), who write that "the dominant problem for shy narcissists is shame rather than envy or aggression" (p. 427). In sum, one may anticipate grandiose, but not vulnerable, narcissism to be a strong source of envy.

We suspect, however, that these conclusions may be premature. Consider that grandiose narcissism engenders arrogance and objectively inflated self-views (e.g., Gabriel, Critelli, & Ee, 1994) supported by assertive downward social comparisons (Campbell et al., 2002; Krizan & Bushman, 2011) and a multitude of inter-personal and intra-personal self-enhancement strategies (Morf & Rhodewalt, 2001). Thus, we expect grandiose individuals to rarely encounter situations in which *they perceive* others as better than themselves. This is especially the case as they are more likely to comparatively self-enhance on agentic attributes reflecting status-related competencies (Krizan & Bushman, 2011), and it is precisely these attributes that are the most common source of envy (Smith & Kim, 2007). As a result, those high on grandiose narcissism should, if anything, be *less* likely to experience envy in everyday life given (1) the lack of upward comparison situations necessary to induce the emotion and (2) their ability to deflect these comparisons via comparative self-enhancement strategies (Campbell, Reeder, Sedikides, & Elliot, 2000). Note that some writers indicate that envy experienced by grandiose individuals

may quickly transform to feelings of hate and resentment, lacking the sense of disadvantage which produced envy in the first place. As Hotchkiss (2003) notes, “to admit envy would be to acknowledge inferiority, which no good narcissist would ever do...envy knows intuitively that the best defense is good offense” (p. 16). She further proposes that “unaware of either envy or the need for superiority, these individuals may feel only self-righteous contempt” (p. 17). Thus, whether grandiose narcissism (unconsciously) transmutes to resentment or hostility in an envy-provoking situation is considered carefully in the present work.

On the other hand, we contend that *vulnerable* narcissism should lead to very frequent and intense feelings of envy. Due to their low self-esteem and chronic feelings of inadequacy (Cain et al., 2008; Pincus et al., 2009), those high on narcissistic vulnerability should often find themselves in upward comparison situations where they perceive another individual as better than themselves. Given that a perception of inferiority (even if circumscribed) is critical to producing an envious reaction (Smith, Parrott, Ozer, & Moniz 1994; Van de Ven et al., 2009), it should increase opportunities to feel envy. Furthermore, those high on vulnerable narcissism seem to have contingent self-esteem that very much depends on being attractive, competent, and admired (Zeigler-Hill, Clark, & Pickard, 2008), likely to sharpen the focus on other superior individuals able to “steal” these desired appraisals away. In sum, in contrast to clinical assumptions, we expect narcissistic vulnerability (but not grandiosity) to be a diathesis for envy.

Overview of the Present Studies

Given the prohibitive nature of the emotion and social sanctions against expressing it, studying envy presents important difficulties, especially in conjunction with narcissism. To surmount these formidable challenges, our work is based on the principle of triangulation; we adopted multiple strategies to explicate the relation between envy and narcissism. We rely both

on self-reports and informant-reports of envy and narcissistic traits, and examine these traits among both students and community adults. Furthermore, we measure envy as a disposition and an acute emotion, as well as induce it within the laboratory. Finally, we assess envy globally as well as examine its cognitive-affective components. Together, these studies constitute the most systematic investigation of the role of envy in narcissism conducted to date.

Studies 1a and 1b

To gain initial insights into the links between envy and narcissism, we examined links between self-reports of narcissistic and envy-related traits among college students (Study 1a) and community adults (Study 1b). To supplement the measurement of envy we also assessed chronic *schadenfreude*, that is tendencies to take pleasure in others' misfortune. *Schadenfreude* is a logical consequence of envy given the latter leads to hostility and dislike, attitudes which promote positive reactions to misfortunes of the disliked others. Furthermore, when the envied individual suffers a setback it in some sense "levels the scales", leading to contentment that the envied got what they deserved and that equality has been restored (Smith, Turner, Leach, Garonzik, Urch-Druskat, & Weston, 1996). While both grandiosity and vulnerability may engender some *schadenfreude* given these dimensions share inter-personal antagonism, vulnerability should be a much stronger predictor given its hypothesized link with envy.

Study 1b with community adults enabled not only a replication, but also a test of whether the observed relationships between traits persist across adulthood. In addition to measures from Study 1a (see below), this sample also completed the recently developed Pathological Narcissism Inventory (PNI) (Pincus et al., 2009) which contains sub-scales that measure a number of more specific narcissistic features that span both vulnerability and grandiosity. This larger set of measures relevant to both narcissistic grandiosity and vulnerability enabled us to factor-analyze

them, extract grandiosity and vulnerability factors, and then regress our criteria (i.e., envy and *schadenfreude*) on these general narcissism factors.

Furthermore, we included measures of neuroticism and socially desirable responding (impression-management and self-deception; Paulhus, 1998b) which enabled us to test whether any links between narcissism and envy are due to confounding influences of these variables. Neuroticism is important given it is one of the strongest discriminating variables between narcissistic vulnerability and grandiosity (Miller & Campbell, 2008) and a potent predictor of envy (Smith et al., 1999). In addition, given importance of shame to narcissistic vulnerability (see Kohut, 1971 and earlier discussion), we also assessed shame propensity, allowing us to compare the relative association of each emotion to narcissism.

Method

Participants. Study 1a participants were 192 undergraduate students (50% female) at a large Midwestern university who earned partial research credit toward a course requirement. Study 1b participants (N = 161, 57% female, aged 18 – 37, 62% Caucasian) were recruited online in major cities of the United States (e.g., Chicago, Los Angeles, and Atlanta) via Craig’s List (www.craigslist.org) advertisements and completed a study on “personality” for \$10.

Procedure and Measures. The studies were administered online, and each participant completed the following questionnaires (in the order described). First, they completed the Dispositional Envy Scale (DES) (Smith, Parrott, Diener, Hoyle, & Kim, 1999, e.g., “I feel envy every day”). In addition, to indicate their chronic *schadenfreude* tendencies, participants responded to six ad-hoc items by reporting their level of agreement on a 1 (strongly disagree) to 7 (strongly agree) Likert-type scale. A principal-factors analysis on the items from Study 1a sample (e.g., “Seeing others fail can sometimes feel good”, “Somebody that has what I want

should ‘not have it all’”) revealed a single factor solution (with only one factor with an Eigenvalue larger than 1, accounting for 67% of the variance). As loading of all items were very high (.65 - .87), we aggregated the items into a chronic *schadenfreude* scale ($M = 2.70$, $SD = 1.21$) which exhibited high reliability in both samples ($\alpha = .90$ and .89, respectively).

Next, participants completed the Hypersensitive Narcissism Scale (HSNS) (Hendin & Cheek, 1997) as a measure of vulnerable narcissism and Narcissistic Personality Inventory (NPI) (Raskin & Hall, 1981) as a measure of grandiose narcissism. Given valid criticisms that the NPI over-emphasizes adaptive aspects of dominance and surgency (Pincus & Lukowitski, 2010), we also consider the Grandiose Exhibitionism factor of the NPI which is distinct from the leadership aspects of narcissism (Ackerman, Witt, Donnellan, Trzesniewski, Robins, & Kashy, 2011). To further supplant assessment of grandiosity, participants completed the State-Trait Grandiosity Scale (STGS) (Rosenthal, Hooley, & Steshenko, 2003) and the Psychological Entitlement Scale (PES) (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004).

In addition to these measures, participants from Study *1b* also responded to the seven sub-scales of the Pathological Narcissism Inventory (PNI) (Pincus et al., 2009), the BFI neuroticism scale (John, Donohue, & Kentle, 1991), the Balanced Inventory of Socially Desirable Responding (Paulhus, 1998b), and the Shame Proneness scale (Wolf, Cohen, Panter, & Insko, 2010), which assesses shameful responses (avoidance and self-criticism) to hypothetical situations.

Results & Discussion

The correlations between measures of narcissism and envy tendencies from Study *1a* appear on the left side of Table 1. As we anticipated, grandiose narcissism (as measured by the NPI) did not engender more dispositional envy; if anything, it showed a trend in a negative

direction ($r = -.10$). Similar results held for the Grandiose Exhibitionism factor of the NPI and for the State-Trait Grandiosity scale. Vulnerable narcissism (i.e., HSNS), on the other hand, showed very strong positive links with dispositional envy and *schadenfreude* tendencies, with correlations hovering around .50.

Although entitlement showed weak to moderate links with envy and *schadenfreude* tendencies, it is a feature shared by both forms of narcissism (Cain et al., 2008; Russ et al., 2008; see also Table 1), and it did not predict envy nearly as strongly as did the global measure of vulnerable narcissism (HSNS). In sum, vulnerable narcissism was a strong and consistent predictor of envy-related traits, while grandiose narcissism was not.

An important advantage of using the Pathological Narcissism Inventory (PNI) (Pincus et al., 2009) in Study 1b was that it enabled us to cover an even broader range of narcissism measures and to examine how the underlying vulnerability and grandiosity factors relate to envy. In order to do so, we submitted measures from Study 1b to a principal-factors analysis with Varimax rotation. The analysis and inspection of the scree-plot (see Figure 1) suggested a two-factor solution; there were two factors with an Eigen-value larger than 1, accounting for 43% and 19% of the variance, respectively. Parallel analysis confirmed this decision as only the first two factors had Eigen-values exceeding those from a random data set (Horn, 1965). The rotated loadings of measures on these factors appear on the right side of Table 1, and the factor markers (i.e., those measures which loaded higher than .50 on one factor, but less than .25 on the other) appear in bold. A brief look reveals that narcissistic vulnerability was marked by the HSS and four subscales from the PNI (contingent self-esteem, hiding the self, devaluing, and entitlement rage), whereas narcissistic grandiosity was marked by the NPI, STGS, and the exploitativeness sub-scale from the PNI. Note that the psychological entitlement and grandiose fantasy had

moderate loadings on both factors, confirming that entitled expectations and fantasies of success typify both narcissistic dimensions.

How did these factors relate to envy and *schadenfreude*? As indicated earlier, we simultaneously regressed these criteria on factor scores from the analysis above. The standardized regression coefficients appear on the bottom-right of Table 1. Confirming the results from Study 1a, narcissistic vulnerability had a strong positive association with envy, while grandiosity had a modest *negative* association with envy. Whereas grandiosity was somewhat related to *schadenfreude*, the relation with vulnerability was twice as large.

It is important to consider whether the strong links observed between envy and vulnerable narcissism are due to their common overlap with neuroticism or socially-desirable responding. In order to test these possibilities, we computed partial correlations between dispositional envy and narcissism factors while simultaneously controlling for neuroticism, self-deception, and impression-management. Dispositional envy remained strongly associated with vulnerability ($r_p = .48, p < .001$), while grandiosity was unrelated ($r_p = -.02, ns$). These results indicate that envy is a distinctive feature of vulnerable narcissism and cannot be reduced to the underlying neuroticism or responding tendencies, and also that envy's lack of association with grandiosity remains even after controlling for self-enhancing response tendencies of grandiose individuals. Furthermore, the association of vulnerability and envy remained even after controlling for both aspects of shame (negative self-evaluation and avoidance), $r_p = .36, p < .001$. Taken together, the results from Study 1 indicate narcissistic vulnerability to be strongly associated with chronic envy, irrespective of underlying neuroticism or shame these individuals tend to experience. On the other hand, narcissistic grandiosity was modestly *negatively* related to chronic envy.

Study 2

Across multiple measures and two samples, the findings so far suggested a robust tendency for those high in vulnerable narcissism to experience envy more frequently, whereas those high in grandiose narcissism to envy somewhat less frequently. As indicated in the introduction, self-esteem likely plays a role in these divergent associations, but we did not examine it directly. To this end, we wanted to test to what extent the links between envy and different manifestations of narcissistic traits can be accounted for by their differences in self-esteem, given the importance of this variable both in differentiating narcissistic vulnerability from grandiosity (Miller & Campbell, 2008) and in facilitating envy (Smith et al., 1999). In addition, Study 1 findings rely entirely on global self-reports of emotional and behavioral tendencies that occurred in the past. These may be problematic due to potential distortions of past behavior or experience. In order to get a more precise sense of the intensity and form of envious reactions when envy is actually experienced, in Study 2 we had participants relive an intense episode of envy and then rate various envy-related thoughts and emotions they had during the episode. This approach allowed us to examine links between narcissism and *specific* cognitive-affective components of envy, rather than relying solely on global reports of this undoubtedly complex emotion.

While taking a more targeted look at components that constitute envy helps to alleviate some problems inherent in reports of global tendencies, it retains others. More specifically, the possibility that individual reports of envy are driven by conscious or non-conscious distortions of experience remains a potential problem (Smith & Kim, 2007). This is especially important in light of the counterintuitive findings regarding grandiose narcissism and envy—perhaps those high on narcissistic grandiosity do not admit envy *per se*, but experience their envy-laden hostile

reactions to superior others as driven by a sense of injustice and resentment. To address this problem, in Study 2 we also collected informant reports of narcissistic and envious tendencies, allowing us to examine whether the same patterns held when considering others' perceptions of individuals' enviousness and narcissism. Even though observers don't have access to others' unconscious processes, their external perspective can shed unique light on the nature of others' emotional reactions; for example, observers are often in the best position to understand whether someone's hostility is indeed driven by envy (Silver & Sabini, 1978).

Method

Participants. One-hundred and twenty two students (49% female, ages 18-24) from a large Midwestern university served as research participants in exchange for course credit. Each of the participants was instructed to "bring a good friend" to the study session—these individuals (48% female, ages 18-25) served as informants, and were paid \$3 in exchange for their participation.

Procedures and Measures. The friendship dyads arrived to the laboratory together, and each individual was lead into a separate room. The main participants (i.e., those participating for course credit) were told that the main purpose of the research is to better understand the nature of envy. After being assured their responses will be anonymous and confidential, they were instructed to recall an episode of envy, feel it vividly, and describe what was going on in their mind at the time (as in Smith et al., 1994) .

They were then handed a questionnaire packet in which they first described the envy episode. In order to assess the intensity of envious feelings, they were presented with a series of statements reflecting a variety of cognitive and affective reactions to this experience which participants endorsed on a 1(not at all characteristic) to 9 (very characteristic) scale. As in Smith

and colleagues (1994), these statements captured the following cognitive-affective components of envy: inferiority feelings (4 items, e.g., “The person I envied made me feel inferior”), depressive feelings (4 items, e.g., “I felt sad”), subjective injustice (6 items, e.g., “I was feeling unfairly treated by life”), hostile feelings (4 items, e.g., “I felt hate”), and ill-will (3 items, e.g., “I felt an urge to get even”). Reliabilities appear in the diagonal of Table 2.

Finally, participants completed the Rosenberg Self-Esteem Inventory, (RSE, Rosenberg, 1965), the Dispositional Envy Scale (DES), Narcissistic Personality Inventory (NPI), Hypersensitive Narcissism Scale (HSNS), and Psychological Entitlement Scale (PES). For informants (who did not complete the RSE), DES and HSNS were reworded such that first person pronouns (“I”) were replaced with third person pronouns (“He/she”) that referred to their friend (e.g., “He/she feels envy every day”). Furthermore, NPI and PES items that referred to private beliefs were reworded such that informants would respond based on what their participant friend thinks, rather than what was actually true (e.g., “If he ruled the world *he thinks* it would be a better place”). This approach was critical in order to avoid conflation of grandiose and entitled beliefs with actual status, ability, or deservingness. Finally, all participants indicated “how close are you and the friend you came with” on a 1(not close at all) to 7 (very close) scale.

Results and Discussion

Relevant correlations of self- and informant-reports appear at the top of Table 2. Note that *all* participants indicated they were at least ‘somewhat close’ with their friend, with 44% indicating they were ‘very close’ (the two sets of intimacy ratings correlated .67). Did friends that participants brought to the lab have any insight into the participants’ narcissism and envy? In the case of grandiose narcissism they clearly did, as reflected by the substantial correlation of .45 between self- and informant-reports on the NPI. In the case of vulnerable narcissism and

psychological entitlement, however, negligible correlations reveal this was not the case. There was some agreement regarding envy, however, as informant reports of dispositional envy correlated .26 with self-reports. The low agreement correlations on these dimensions are not surprising given the private, covert nature of emotional experiences central to these traits. Some agreement regarding dispositional envy, however, bolsters validity of the DES and suggests that friends of our participants had at least some insight into the latter's envy.

The links between self-reports mimic those from Study 1, with the NPI and HSNS showing a weak negative and a strong positive relation with envy, respectively. A similar pattern held for informant-reports—participants' friends did not believe that those they considered to be grandiose envied much, but clearly indicated that those they considered to be vulnerable did. Given the lack of self-other agreement regarding vulnerable narcissism, however, the latter relation is best considered reflective of a lay personality theory, even if an accurate one. That is, even though participants' friends could not correctly identify who is high on narcissistic vulnerability, they correctly assumed that those who appear to them as such seem to envy more (see top of Table 2). Regarding self-esteem, it was positively related to grandiosity, but negatively related to vulnerability. Critically, although controlling for self-esteem did slightly reduce the correlation between dispositional envy and vulnerable narcissism, a substantial relationship remained ($r_p = .31, p < .001$).

Relations between NPI, HSNS, and specific components of envy appear at the bottom of Table 2. Inspecting the first column of Table 2 indicates that NPI did *not* predict more intense envious reactions, with a slight exception of ill-will. Virtually the same pattern held for informant-reports on the NPI. In contrast, vulnerable narcissism was consistently related to higher intensity of all envy components. Taken together, these findings lend direct support to the

notion that those high on vulnerable narcissism experience more *intense* envy, whereas those high on grandiose narcissism do not. Whereas psychological entitlement did predict hostile components of envy, it did not predict feelings of inferiority. Thus, consistent with Study 1, entitlement specifically did not predict the breadth of envious reactions as well as did vulnerable narcissism more globally. Finally, while self-esteem logically contributed to more frequent envy among those high on vulnerability, it was not the sole factor accounting for the relation.

Study 3

Consistent with the first study, Study 2 confirmed that narcissistic vulnerability exacerbates envious reactions during an envy episode, and that the lack of positive association between envy and *grandiose* narcissism is not due to distortion of envious reactions in self-reports of grandiose individuals, as the lack of association between envy and grandiosity held even for informant reports of close peers. Despite the informant-report data, one may still object that memory distortions biased participants' envy recollections in Study 2. To this end, Study 3 covertly induced envy within the laboratory and then measured a variety of reactions. If vulnerable and grandiose narcissism (measured prior to the experimental session) show the same associations with envy *in vivo* as they did with recollections of envy, arguments about memory distortions become less compelling. By assessing narcissism prior to inducing envy, we were able to directly examine which narcissistic traits lay the ground for envious feelings.

An additional purpose of Study 3 was to test whether narcissism also promotes toxic consequences of envious feelings. We focused on *schadenfreude*, the pleasure felt following the misfortune of others. Our central interest was in whether (vulnerable) narcissism would exacerbate feelings of *schadenfreude* toward the envied individual (cf. Study 1), and whether

more intense envious feelings among those high on narcissistic vulnerability would drive this greater sense of pleasure at the misfortune of the enviable other.

Method

Overview. In order to arouse envious feelings, the experiment involved reading an interview with a fellow student of either high or low status. In order to create an opportunity for *schadenfreude*, we orchestrated an impression of hypocrisy. To this end, when participants first read the interview with the student, they learned that he or she served on the student honor court whose mission (among others) was to punish academic dishonesty. When subsequently reading about the student again (see below), they learned that the same student was convicted of plagiarism and put on academic probation for one year. We anticipated this discordance between actual behavior and public claims to engender hypocrisy (e.g., Stone, Wiegand, Cooper, & Aronson, 1997), and to induce a fair amount of *schadenfreude* toward the target student's placement on probation. Note that hypocrisy was held constant across both conditions, allowing only condition differences in status of the target to account for potential experimental differences in *schadenfreude*.

Participants and Design. Seventy students (60% female, mean age 19.6) from a large Midwestern university served as research participants in exchange for course credit. They completed the HSNS, PES, and the 16-item short form of the NPI (Ames, Rose, & Anderson, 2006) in a previous mass-testing session. Each participant was randomly assigned to read either about a low-status individual or a high-status individual in an article that ostensibly appeared in the online edition of the university newspaper.

Procedures and Measures. Upon participants' arrival to the laboratory, the experimenter introduced the study as aimed toward understanding "how perceptions and feelings toward the

content of news stories may change based on how the information is presented”. Furthermore, they were told that one interest is in how “people integrate information across different forms of media.” Although people in the study would receive information across many different media, participants were told, they specifically would see two related articles from the on-line edition of the university newspaper. Specifically, they would receive information via computer screen and on paper. They were then seated at a computer on which the first article appeared. The online version of the article was developed in collaboration with the university newspaper and actually posted on their server, thus rendering it indistinguishable from any “real” article that the students would normally encounter.

This first article was presumably from a series of interviews aimed to introduce a given student to others on campus. The content of the article left an impression that the individual (always of the same gender as the participant) was either of *high-status* (a physically attractive, excellent student with upper class parents and an enviable social life) or *low-status* (an average-looking, mediocre student with financial struggles and an unexceptional social life). Note that the interview also indicated involvement with the student court, critical in ensuring the eventual impression of hypocrisy.

After reading the article, participants received a questionnaire with the first set of dependent variables. The first page of the questionnaire stated “given comprehension may be influenced by feelings, please indicate how reading the article made you feel about or toward” the individual in the article. Following were 32 emotional reactions that participants rated on a 0 (none at all) to 11 (great amount) scale. Among these reactions were embedded critical items that allowed us to assess envy and related emotions. Specifically, we created an Envy index based on the responses to *envious of*, *jealous of*, and *resentful envy toward*, a Hostility index (*cold toward*,

annoyed by, hostile, frustrated by, disgusted by, and angry at), a Dejection index (*inferior to, self-lacking, and depressed*), a Resentment index (*resentful, indignant toward, contempt for, grudge against*), and an Admiration index (*liking for, happy for, warm respect for, admiring, inspired by, and pleased for*). Reliabilities for these indices appear in the diagonal of Table 4.

The second page included multiple personal attributes that participants rated on the same scale described earlier. We created an index of perceived status by summing six items (*gifted, advantaged, confident, intelligent, poised, and fortunate*) which served as the manipulation check ($\alpha = .85$). The subsequent pages included multiple bogus questions about the format and effectiveness of the articles that were used to maintain the cover story. Then, participants were taken into another room, and given another questionnaire with a memory test-- for information about the student they read about—which served both to maintain the cover story and to remind students about attributes of the individual, especially their participation in the honor court.

Next, participants were provided with the second article, which was presented as a printout of the college newspaper on-line edition. The title read “Liberal Arts and Sciences Sophomore Guilty of Plagiarism”, and stated that the individual with the name they just read about was found guilty of plagiarism for which the committee recommended one year academic probation. After being instructed to return to the questionnaire and answering several memory questions, they responded to the “final impression control measure”, where among multiple filler items they indicated how “Pleased over what has happened to him/her” they were, on the same 11-point scale described earlier. This served as our measure of *schadenfreude* given that participants should feel good about a hypocrite (a member of the honor court caught plagiarizing) being put on probation. Finally, participants went through funnel debriefing where they were first asked about their general reactions to the study, and then probed with increasing

specificity about their thoughts regarding the study purpose. One participant indicated suspicion about the procedures and was thus removed from the analyses.

Results & Discussion

The analysis of the manipulation check index of perceived status indicated our manipulation was successful; those in the high-status condition ascribed a lot more prestige to the individual in the article ($M = 7.3$) than those in the low-status condition ($M = 5.5$), $t(67) = -4.52$, $p < .001$, $d = 1.1$. The overall intensities of envy, related reactions, and *schadenfreude* appear in Table 3, separately for each experimental condition.

Inspecting means of global envy reports reveals that individuals who read about the low-status target did not experience basically any envy, whereas those who read about the high status target experienced a considerable amount more ($d = 1.90$). Also, envy differed significantly between conditions even after controlling for hostility, resentment, dejection, and admiration in an Analysis of Covariance, $F(1, 63) = 14.15$, $p = .003$. Finally, participants only experienced substantial *schadenfreude* for the high-status student ($d = 1.44$); although students across both conditions were equally deserving of the misfortune (i.e., both acted dishonestly and hypocritically), it was the envied, high-status student that yielded more of the guilty pleasure.

Did narcissism augment these envious reactions? Table 4 presents correlations between grandiose narcissism (NPI-16), vulnerable narcissism (HSNS), entitlement (PES) and different emotional reactions across both the experimental conditions. First, note that reports of envy were strongly related to hostility, dejection, and resentment, as would be expected given the relevance of these reactions for the experience of malicious envy. Overall, all the correlations parallel those from the first two studies.

Critically, did standing on narcissism increase the likelihood of experiencing envy when exposed to a high-status individual? To examine this, we conducted hierarchical regressions where envy and other emotional reactions were modeled as a function of condition, narcissism, and their interaction (after centering). Across all of the dependent variables, grandiose narcissism (via NPI-16) did not interact with the status manipulation in shaping participants' emotional reactions (all $ps > .30$), including envy. However, vulnerable narcissism (via HSNS) did interact with the status manipulation to shape envious reactions ($\beta = .21, t = 2.5, p < .05$). Specifically, there was clear evidence of moderation regarding envious reactions. Those higher on narcissistic vulnerability (+1 SD) were more likely to respond with much stronger envy to the high-status individual (Simple Slope test: $\beta = .87, t = 7.36, p < .01, 95\% \text{ CI} = .64 - 1.10$) than those scoring low (-1 SD) on this dimension (Simple slope test: $\beta = .44, t = 3.71, p < .01, 95\% \text{ CI} = .21 - .67$). These results are in Figure 2. However, vulnerable narcissism did not intensify hostility, dejection, and resentment *per se* as a function of the status manipulation (all $ps > .30$). In short, vulnerable narcissism augmented the impact of status of the envied individual on intensity of envy but not other emotions, reinforcing the centrality of this emotion for narcissistic vulnerability.

Finally, did vulnerable narcissism exacerbate the potential consequence of this envy, namely *schadenfreude* due to student's placement on academic probation? To examine this question, we followed procedures for testing mediated moderation outlined by Muller, Judd, and Yzerbyt (2005). These procedures involve estimating three regression models, and then examining several critical parameters (see Muller et al., 2005, Table 3). The first model involves a simple moderated regression on the outcome variable, in this case predicting *schadenfreude* as a function of the condition, narcissism, and their product term. The second model is the same,

with the exception of the dependant variable being the *mediator*, in this case envy. The third and final model involves predicting the outcome variable (*schadenfreude*) via the same variables as in the first model, with the addition of the mediator variable (envy) and the product term of the mediating and the moderating variable (envy*narcissism). In essence, this model allows for the mediator's (partial) effect on the outcome as well as the residual effect of condition on outcome to be moderated. The critical step involves documenting that (1) the mediator (envy) in this final model remains a predictor of the outcome (*schadenfreude*) across the condition for the average value of the moderator (narcissism), and (2) that the moderating effect on the outcome variable is reduced relative to the first model (i.e., once the mediator is taken into account).

Estimating the first model (i.e., testing whether the dependent variable is moderated) revealed that vulnerable narcissism did seem to exacerbate *schadenfreude* as a function of the target's status, $\beta = .17$, $t = 1.70$, $p = .09$, although the interaction term was only marginally significant. Simple slope tests, however, confirmed that those high (+1 SD) on vulnerable narcissism were much more likely to feel pleased over the envied individual's misfortune ($\beta = .72$, $t = 5.11$, $p < .01$, 95% CI = .44 - 1.00) than those low on vulnerable narcissism (-1 SD, $\beta = .37$, $t = 2.65$, $p < .01$, 95% CI = .10 - .65). The second model (testing whether the mediator is moderated) was discussed earlier, and it clearly indicated that vulnerable narcissism moderated the impact of status on envy (see above for simple slope tests). Critically, the third model confirmed that when envy (the mediator) was included as a predictor along with interaction terms it remained a significant predictor ($\beta = .64$, $p < .001$), while the moderating effect of narcissism on *schadenfreude* was no longer significant, and in the opposite direction ($\beta = -.08$, $p = .43$). Taken together, these results indicate a pattern of mediated moderation; those high on

vulnerable narcissism were more likely to envy the high status individual, and this envy resulted in more intense feelings of *schadenfreude* at the envied individual's misfortune.

Summary of Results

The three studies presented above reflect the most systematic empirical examination of envy and narcissism conducted to date. Despite common assumptions that envy is an inherent component of narcissistic grandiosity, our results question this premise. Specifically, grandiose narcissism was indicative of somewhat less chronic envy according to both self and informant-reports (Studies 1-3). Furthermore, while in the throes of envy, those high on narcissistic grandiosity did *not* experience more hostility, inferiority, or injustice (Studies 2-3), but somewhat less. Note that there was little evidence that these individuals unconsciously suppressed or denied their envy; informant-reports (Study 2) and analyses controlling for socially desirable responding (Study 1) both confirmed that those high in grandiose narcissism are slightly less likely to experience envy. Furthermore, there was no indication that grandiose narcissism potentiated feelings of inferiority, hostility, and resentment in the case of a recalled envy episode (Study 2) or an ongoing envious experience (Study 3). Thus, there was little evidence for the notion that high grandiosity leads to envy being unconsciously transmuted to resentment or a related sentiment. On the whole, grandiose narcissism seems to indicate somewhat ambivalent reactions to enviable others, as those high on grandiosity may be somewhat less (and certainly not more) susceptible to envy

On the other hand, vulnerable narcissism clearly serves as a diathesis for the painful feelings of envy; it was associated with chronic envious tendencies (Studies 1 –3), it potentiated a sense of dejection, hostility, and resentment experienced while reliving envy (Study 2), and it exacerbated strong feelings of envy under exposure to a high status individual (Study 3), feelings

that ultimately lead to *schadenfreude* at the envied individual's misfortune. Note that the association of vulnerable narcissism with chronic envy superseded the one with shame, and could not be accounted for by underlying neuroticism, reporting biases, or self-esteem (Study 1b and 2), nor be reduced to entitlement (Studies 1 – 3). However, entitlement itself did serve as a diathesis for envy, although it could not match the predictive power of vulnerability.

General Discussion

The psychoanalytic tradition has proved a treasure-trove of insights, conceptualizations, and hypotheses regarding narcissism and envy. As has often been the case with attempts to apply scrutiny to psychoanalytic claims (Westen, 1990), however, it can be difficult to translate psychodynamic ideas into operational, testable hypotheses. The present work examined the basic question of what aspects of narcissism promote enviousness, and as such it bears directly on decades of psychoanalytic claims. In the sections that follow we discuss what aspects of narcissism are critical for the experience of envy, with the aim of connecting classic insights by psychoanalytic theorists with contemporary research and our findings.

What is it that Makes a Narcissist Envy?

Kohut's (1971) analysis of narcissism is rooted in the premise that narcissists lack a stable, well-integrated self-organization. As a result, narcissists should experience low self-esteem, shame, and ultimately aggression due to frustration about their inability to quench infantile narcissistic needs. Thus, his focus was on vulnerability and distress experienced by narcissists, and the haphazard displays of grandiosity that are ultimately ineffective in compensating for the lack of integration in the self structure. As described earlier, clinical observations are consistent with these claims (Levy et al., 2009; Russ et al., 2008) and multiple analyses of individual differences have identified vulnerability as a distinct dimension of

narcissism (e.g., Rathvon & Holmstrom, 1996; Wink, 1991). Critically, this perspective has generally stressed the role of shame rather than envy (Pincus & Lukowitsky, 2010). While we do not doubt the importance of shame for vulnerable narcissism (Hibbard, 1992; Pincus et al., 2009; current Study 1b), our analysis indicates that envy has gone unappreciated as an important feature of narcissistic vulnerability, a feature that may help explain critical aspects of this character structure. For example, self-devaluation and hostility associated with envy may promote aggression, and such responses would then promote further self-criticism and shame, ultimately leading to a shame-rage spiral (Scheff & Retzinger, 1991; Tangney et al., 1996).

We propose that envy is central to the emotional life of those exhibiting narcissistic vulnerability. In fact, vulnerable narcissism likely constitutes a “perfect storm” of personality characteristics necessary to arouse potent envy. First, narcissism (of any stripe) engenders self-absorption, which means intensified self-evaluation. Social comparisons are one of the most important and powerful sources of information we turn to when evaluating ourselves (Suls & Wheeler, 2000; Tesser, 1991), which indicates that more narcissistic individuals may be especially sensitive to social comparison information (Krizan & Bushman, 2011). While those high on narcissistic grandiosity may be very adept at avoiding many unflattering implications of this information (Campbell et al., 2000), those high on vulnerability seem less fortunate as they are left with constant exposure to others seemingly better-off across multiple domains they desperately depend on for self-worth (Zeigler-Hill et al., 2008). Second, this apparent bombardment by more successful others is met by entitled expectations which demand that the narcissists get more than others and be better than them (Campbell et al., 2004; Pincus et al., 2009; current studies). This suggests that even an equitable outcome may be interpreted as threatening one-upmanship. Third and final, neuroticism and concomitant low self-esteem

exacerbate sensitivity to social comparisons (Gibbons & Buunk, 1999), and even worse, facilitate impressions of inferiority and self-doubt that make others' enviable lives seem that much more out of reach. This lack of self-efficacy and self-worth is critical in facilitating envious feelings (Smith & Kim, 2007; Van de Ven et al., 2009).

In short, those exhibiting narcissistic vulnerability find themselves in the perfect breeding ground for envy. On one hand, their self-absorption leads them to desperately depend on flattering self-evaluations across multiple domains, often via social comparison. On the other hand, their entitlement, inferiority, and self-doubt virtually assure they will come up against superior others whose desired position, success, or appeal will be viewed as unjust and out of reach. Together, these dynamics likely produce strong and consistent envy we observed in the current studies, and suggest that vulnerable narcissism is one of the most important personality diatheses for the experience of envy. This conclusion is reinforced by the notable finding from Study 3 that vulnerable narcissism predicted envy *in vivo* as strongly as did dispositional envy scale itself!

Those high on narcissistic grandiosity, however, do not seem more likely to envy. Our data suggest they may actually be *less* likely to envy, their haughty grandiosity buffering them against these painful feelings. How do we square these findings with years of observations that narcissistic grandiosity fans the flames of envy (Kernberg, 1975; Ronningstam, 2005)? We propose that findings connecting grandiose narcissism, hostility, and aggressive reactions to ego-threat were somewhat misleading in that they implied that envy played an important role. Links between narcissism and hostility have been well documented; grandiose narcissism is related to trait hostility (Ruiz et al., 2001) and grandiose individuals retaliate aggressively against slights of others, especially when their image of competence is threatened (Bushman & Baumeister, 1998;

Morf & Rhodewalt, 1993; Smalley & Stake, 1996). Moreover, those high on grandiose narcissism react with hostility to superior individuals they encounter in daily life (Bogart et al., 2004), which in particular seems to indicate that envy is involved. Finally, these individuals are especially likely to “out-do” others when under public scrutiny (Wallace & Baumeister, 2002), suggesting they may want to avoid feeling envy or desire others to envy them.

While all these findings are consistent with the notion that grandiose narcissism entails malicious envy, our findings clearly indicate that not to be the case. Note that we, as did prior researchers, observed some links between grandiose narcissism (i.e., NPI), hostility, and ill-will. However, there was no support for the notion that this hostility emanates from envy; rather, we should look to other candidate explanations for why grandiose narcissism predicts hostility. One powerful suspect is entitlement, common to narcissism, which produces hostile reactions when the individuals’ expectations of favored treatment are violated (Campbell et al., 2004; Reidy, Zeichner, Foster, & Martinez, 2008; current Studies 1 – 3). Could grandiosity still lead to envy that remains largely unconscious? Although we could not completely rule out this possibility, grandiose individuals were *not* viewed as envious by their close peers (Study 2), nor was there any evidence that grandiosity lead to increased hostility or feelings of injustice, reactions that should be indicative of suppressed envy (Hotchkiss, 2003).

It is also important to remember that underlying temperament and perceived superiority of those with narcissistic grandiosity likely shield them from many dangers of envy. As we mentioned at the outset, narcissism is associated with beliefs that one is superior to others (Campbell et al., 2002; Krizan & Bushman, 2011). This superiority will eliminate opportunities to feel disadvantaged. When combined with narcissists’ creative toolbox of self-enhancing strategies (Morf & Rhodewalt, 2001), it should protect them against malicious envy given that

the key ingredient of perceived disadvantage will often be missing. Additionally, extraverted temperament and lack of negative affectivity among those high on narcissistic grandiosity (Miller & Campbell, 2008) can protect them against frequent and intense negative emotions. While these individuals certainly get very upset at times, these periods of personal distress and uncertainty seem an exception rather than the rule, seldom producing negative reactions of self-doubt and inferiority important for facilitating envy.

Implications

The current findings carry important implications for understanding narcissism and narcissistic pathology. Our findings stress the centrality of the distinction between grandiose and vulnerable narcissism. The complex history of narcissistic concepts within psychoanalysis (Cain et al., 2008), the elusive factorial structure of the very popular Narcissistic Personality Inventory (Ackerman et al., 2011), and the neglect of features reflecting distress and vulnerability in both diagnostic criteria of Narcissistic Personality Disorder and personality measures (Pincus et al., 2009) have all stifled progress in this domain of inquiry. An important emerging theme, we believe, is that narcissism as a personality construct is best thought of as representing a *domain* of traits, rather than a singular individual difference. As the current data show, envy can be a useful distinguishing characteristic within this domain.

How, then, should the domain of narcissistic traits be construed? Cain and colleagues (2008) focused on clinical *themes* in the work of psychoanalysts and practicing clinicians. Although these themes reflect the unavoidable complexities of real cases (Ronningstam, 2005), they can be elegantly understood as reflecting orthogonal dimensions of narcissistic grandiosity and vulnerability (Pincus et al., 2009) depending on the dominant affect, thought, and behavior of the individual. Factor-analytic studies of narcissism inventories support this distinction (e.g.,

Rathvon & Holmstrom, 1996; Wink, 1991; current Study 1b), as do studies of clinicians' ratings (e.g., Russ et al., 2008). Thus, the narcissistic paradox may be more apparent than real—narcissists do have important deficits in self-regulatory capacities, but some are able to compensate successfully while others are not. Those exhibiting narcissistic grandiosity seem successful at this task---their resilient temperament and social confidence (Buss & Chiodo, 1991; Miller & Campbell, 2008) allows them to both develop and maintain unrealistic self-views regarding their ability and social value (Gabriel et al., 1994). While these strategies may alienate these individuals from others (Paulhus, 1998a) or sometimes cause distress to them (Bushman & Baumeister, 1998), they likely enable these individuals to have relatively satisfying social lives. Indeed, it may be that only when their grandiosity creates enormous friction with others or social expectations, that these individuals experience significant distress and seek counseling or treatment (Pincus, in press). Those exhibiting narcissistic vulnerability, however, seem *unsuccessful* at meeting their idealizing standards of self-value—their neuroticism and social inhibition (Miller & Campbell, 2008; Pincus & Lukowitsky, 2010) prevent them from convincing themselves or others of their worth, often producing avoidant reactions and crippling self-doubt (Hendin & Cheek, 1997; Smolewska & Dion, 2005). As a result, these individuals are more likely to feel dissatisfied and distressed, and end up in the consulting room. A critical avenue for future work should be to examine the dynamic complexities between feelings of shame and envy in daily experience, which are likely critical in producing both avoidant and aggressive reactions (Scheff & Retzinger, 1991; Tangney et al., 1996) in those exhibiting vulnerable narcissistic features.

Note, however, that our data rely on dimensional conceptualizations of narcissism; these phenotypic dimensions should *not* be equated with characteristics of patients with narcissistic

disturbances. As others have noted (Pincus, in press), expressions of grandiosity and vulnerability may co-occur within an individual, and a given person may oscillate between periods of relatively successful satisfaction of narcissistic needs and periods of frustration and depletion. For a given individual, then, grandiose and vulnerable states may both play a critical role in shaping envy and overall psychological adjustment. Indeed, multiple clinicians report working with grandiose narcissistic patients that have struggled with envy, sometimes of the therapist him- or herself (Ronningstam, 2005; Kernberg, 1975). We do not doubt the veracity of such reports—they underscore the fact that no-one is envy-free, and suggest that clinicians should be sensitive to manifestations of envy in any patient with narcissistic disturbance. Connecting individual differences in narcissistic traits with intra-personal dynamics of narcissistic states should lead to a more integrative view of narcissism.

Finally, we suggest that strong feelings of envy need to be reconsidered as a symptom accompanying grandiose features in the current conceptualization of Narcissistic Personality Disorder. In its current form, the symptom is defined as “feelings of envy or belief that one is envied by others” (APA, 1994). This phrasing reflects psychodynamic legacy of the disorder, as it implies that envy may be projected unto others. Grandiose narcissism may engender a belief in being envied, either because of mistrust and cynicism regarding others (Ronningstam, 2005; Ruiz et al., 2001) or because of aims to ensure others’ admiration (Wallace & Baumeister, 2002). However, this does not translate into personal feelings of envy. Rather, these beliefs probably protect those high on grandiose narcissism from feeling envy themselves, as believing one is the target of envy buttresses one’s superiority. Evidence from the clinical and epidemiological literature is also consistent with this proposition (Fossati, Beauchaine, Grazioli, Carretta, Cortinovis, & Maffei, 2005; Russ et al., 2008), although the ambiguity in the current phrasing of

the envy symptom adds to the difficulties when interpreting results regarding prevalence of NPD. In short, envious feeling should be central to assessment of narcissistic vulnerability, but not narcissistic grandiosity. This is especially important given current proposals to change diagnostic approaches to personality disorders (including NPD) so they rely on dimensional conceptualizations (American Psychiatric Association, 2010). Our findings suggest that neither elevated manifestations of grandiosity nor enviousness should be universally required as markers of broader narcissistic dysfunction.

Our findings also enrich the understanding of psychological entitlement. Entitlement beliefs were related to dispositional envy (Study 1) and a sense of subjective injustice, hostility, and dejection during an envy episode (Studies 2 and 3). This suggests that entitled expectations promote a sense of experiencing inferior outcomes, which likely adds to the bitterness and hostility entitled individuals feel toward others, perhaps even fueling their aggressive behavior. Furthermore, this link confirms the perceptions of deservedness as key to the emotion of envy (Ben-Ze'ev, 1992). According to Elster (1998), to be able to experience envy an individual should be in a position to think "I should be able to have it, yet I can't". Thus, the envier's entitlement beliefs likely fuel a sense of desert for other's advantages, ultimately leading to anger and hostility given one's perceived disadvantaged position.

Conclusion

Despite years of clinical theorizing on the dynamics between envy and narcissism, a systematic examination of this issue eluded psychologists for decades. In what is arguably the first methodical look at this complex dynamic, we presented consistent evidence that those with narcissistic qualities envy due to their vulnerability, not their grandiosity. Evidence presented included self-reports, informant-reports, specific envy recollections, and momentary assessment

of envy, as well as data from community adults. Evidence from these data converges on a singular conclusion: it is the person with narcissistic vulnerability that is driven mad by what others have and he or she cannot get.

Authors' Note

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References

- Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the narcissistic personality inventory really measure? *Assessment*, 18, 67-87.
- American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders IV* (4th Ed). American Psychiatric Association: Washington, DC.
- American Psychiatric Association (2010). *DSM-5 development: Personality disorders*. Retrieved from <http://www.dsm5.org/ProposedRevision/Pages/PersonalityDisorders.aspx>.
- Ames, D.R., Rose, P., & Anderson, C.P. (2006). The npi-16 as a short measure of narcissism. *Journal of Research in Personality*, 40, 440-450.
- Ben-Ze'ev, A. (1992). Envy and inequality. *Journal of Philosophy*, 89, 551-581.
- Bogart, L.M., Benotsch, E.C., & Pavlovic, J.D. (2004). Feeling superior but threatened: the relation of narcissism to social comparison. *Basic and Applied Social Psychology*, 26, 35-44.
- Bushman, B.J., & Baumeister, R.F. (1998). Threatened egotism, self-esteem, and direct and displaced aggression: So self-love or self-hate lead to violence? *Journal of Personality and Social Psychology*, 75, 219-229.
- Buss, D.M., & Chiodo, L.M. (1991). Narcissistic acts in everyday life. *Journal of Personality*, 59, 179-215.
- Cain, N.M., Pincus, A.L., & Ansell, E.B. (2008). Narcissism at the crossroads: phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review*, 28, 638-656.

- Campbell, W. K., Bonacci, A. M., Shelton, J., Exline, J. J., & Bushman, B. J. (2004). Psychological entitlement: Interpersonal consequences and validation of a selfreport measure. *Journal of Personality Assessment*, *83*, 29–45.
- Campbell, W.K., Reeder, G.D., Sedikides, C. & Elliot, A.J. (2000). Narcissism and comparative self-enhancement strategies. *Journal of Research in Personality*, *34*, 329-347.
- Campbell, W.K., Rudich, E.A., & Sedikides, C. (2002). Narcissism, self-esteem, and the positivity of self-views: two portraits of self-love. *Personality and Social Psychology Bulletin*, *28*, 358-368.
- Elster, J. (1998). *Alchemies of the mind: Rationality and the emotions*. Cambridge, United Kingdom: Cambridge University Press.
- Emmons, R. (1987). Narcissism: theory and measurement. *Journal of Personality and Social Psychology*, *52*, 11-17.
- Farber, L. (1966). *Ways of the will*. New York: Basic Books.
- Fossati, A., Beauchaine, T. P., Grazioli, F., Carretta, I., Cortinovi, F., & Maffei, C. (2005). A latent structure analysis of diagnostic and statistical manual of mental disorders, fourth edition, narcissistic personality disorder criteria. *Comprehensive Psychiatry*, *46*, 361-367.
- Foster, J.D. & Campbell, W.K. (2007). Are there such things as “narcissists” in social psychology? A taxometric analysis of the Narcissistic Personality Inventory. *Personality and Individual Differences*, *43*, 1321-1332.
- Freud, S. (1905). Three essays on the theory of sexuality. *Standard Edition*, *7*, 125-245.
- Gabriel, M.T., Critelli, J.W., & Ee, J.S. (1994). Narcissistic illusions in self-evaluations of intelligence and attractiveness. *Journal of Personality*, *62*, 143-155.

- Gibbons, F. X. & Buunk, B. P. (1999). Individual differences in social comparison: Development of a scale of social comparison orientation. *Journal of Personality and Social Psychology, 76*, 129-142.
- Hendin, H. M., & Cheek, J. M. (1997). Assessing hypersensitive narcissism: A reexamination of Murray's Narcissism Scale. *Journal of Research in Personality, 31*, 588–599.
- Hibbard, S. (1992). Narcissism, shame, masochism, and object relations: an exploratory correlational study. *Psychoanalytic Psychology, 9*, 489-508.
- HORN, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika, 30*, 179-185.
- Hotchkiss, S. (2003). *Why is it always about you?* New York: Free Press.
- John, O. P., Donohue, E., & Kentle, R. (1991). *The Big Five Inventory—Versions 4a and 54 (Tech. Rep.)*. Berkeley: Institute of Personality and Social Research, University of California.
- Kernberg, O. (1970). A psychoanalytic classification of character pathology. *Journal of the American Psychoanalytic Association, 18*, 800-802.
- Kernberg, O. (1975). *Borderline conditions and pathological narcissism*. New York: Jason Aronson.
- Kohut, H. (1971). *The analysis of the self*. New York City: International Universities Press, Inc.
- Kohut, H. (1977). *The restoration of the self*. New York City: International Universities Press, Inc.
- Krizan, Z., & Bushman, B. J. (2011). Better than my loved ones: social comparison tendencies among narcissists. *Personality and Individual Differences, 50*, 212-216.
- Levy, K.N., Chauhan, P., Clarkin, J. F., Wasserman, R. H., & Reynoso, J. S. (2009). Narcissistic pathology: empirical approaches. *Psychiatric Annuals, 39*, 200-213.

- Miller, J.D., & Campbell, W.K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality, 76*, 449-476.
- Morf, C.C., & Rhodewalt, F. (1993). Narcissism and self-evaluation maintenance: explorations in object relations. *Personality and Social Psychology Bulletin, 19*, 668-676.
- Morf, C.C., & Rhodewalt, F. (2001). Expanding the dynamic self-regulatory processing model of narcissism: research directions for the future. *Psychological Inquiry, 12*, 243-251.
- Muller, D., Judd, C.M., & Yzerbyt, V.Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology, 89*, 852-863.
- Paulhus, D.L. (1998a). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: a mixed blessing? *Journal of Personality and Social Psychology, 74*, 1197-1208.
- Paulhus, D.L. (1998b). *Manual for the Paulhus Deception Scales: BIDR Version 7*. Toronto: Multi-Health Systems.
- Pincus, A. L. (in press). The pathological narcissism inventory. In J. S. Ogdorniczuk (Ed.), *Treating pathological narcissism*. Washington, DC: American Psychological Association.
- Pincus, A.L., Ansell, E.B., Pimentel, C.A., Cain, N.M., Wright, A.G.C., & Levy, K.N. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment, 21*, 365-379.
- Pincus, A.L., & Lukowitsky, M.R. (2010). Pathological narcissism and narcissistic personality disorders. *Annual Review of Clinical Psychology, 6*, 421-446.
- Raskin, R.N., & Hall, C.S. (1981). The narcissistic personality inventory: Alternative form reliability and further evidence of construct validity. *Journal of Personality, 52*, 393-404.

- Rathvon, N., & Holmstrom, R.W. (1996). An mmpi-2 portrait of narcissism. *Journal of Personality Assessment*, 66, 1-19.
- Reidy, D. E., Zeichner, A., Foster, J. D., & Martinez, M. A. (2008). Effects of narcissistic entitlement and exploitativeness on human physical aggression. *Personality and Individual Differences*, 44, 865-875.
- Ronningstam, E.F. (2005). *Identifying and understanding the narcissistic personality*. New York City: Oxford University Press, Inc.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenthal, S. A., Hooley, J.M., & Steshenko, Y. (2003, February). *Distinguishing grandiosity from self-esteem: development of the state-trait grandiosity scale*. Paper presented at the annual meeting of Society for Personality and Social Psychology, Los Angeles, CA.
- Russ, E., Shedler, J., Bradley, R., & Westen, D. (2008). Refining the construct of narcissistic personality disorder: diagnostic criteria and subtypes. *American Journal of Psychiatry*, 165, 1473-1481.
- Ruiz, J. M., Smith, T. W., & Rhodewalt, F. (2001). Distinguishing narcissism from hostility: similarities and differences in interpersonal circumplex and five-factor correlates. *Journal of Personality Assessment*.76, 537-555.
- Salovey, P., & Rodin, J. (1984). Some antecedents and consequences of social-comparison jealousy. *Journal of Personality and Social Psychology*, 47, 780-792.
- Scheff, T. J., & Retzinger, S. (1991). *Emotions and violence: shame and rage in destructive conflicts*. Lexington, Mass: Lexington Books
- Schimmel, S. (1993). *Seven Deadly Sins*. New York: Bantam Doubleday.

- Silver, M., & Sabini, J. (1978). The perception of envy. *Social Psychology, 41*, 105-117.
- Smalley, R.L., & Stake, J.E. (1996). Evaluating sources of ego-threatening feedback: self-esteem and narcissism effects. *Journal of Research in Personality, 30*, 483-495.
- Smith, R.H., & Kim, S.H. (2007). Comprehending envy. *Psychological Bulletin, 133*, 46-64.
- Smith, R. H., Parrott, W. G., Diener, E., Hoyle, R. H., & Kim, S. H. (1999). Dispositional envy. *Personality and Social Psychology Bulletin, 25*, 1007-1020.
- Smith, R. H., Parrott, W. G., Ozer, D., & Moniz, A. (1994). Subjective injustice and inferiority as predictors of hostile and depressive feelings in envy. *Personality and Social Psychology Bulletin, 20*, 705-711.
- Smith, R. H., Turner, T., Leach, C. W., Garonzik, R., Urch-Druskat, V., & Weston, C. M. (1996). Envy and *schadenfreude*. *Personality and Social Psychology Bulletin, 22*, 158-168.
- Smolewska, K., & Dion, K.L. (2005). Narcissism and adult attachment: a multivariate approach. *Self and Identity, 4*, 59-68.
- Stone, J., Wiegand, A. W., Cooper, J., & Aronson, E. (1997). When exemplification fails: Hypocrisy and the motive for self-integrity. *Journal of Personality and Social Psychology, 72*, 54-65.
- Suls, J. M., & Wheeler, L. (Eds.). (2000). *Handbook of social comparison: Theory and research*. New York: Plenum Press.
- Tangney, J. P., Wagner, P., Hill-Barlow, D., Marschall, D.E. & Gramzow, R. (1996). Relation of shame and guilt to constructive versus destructive responses to anger across the lifespan. *Journal of Personality and Social Psychology, 70*, 797-809.

- Tesser, A. (1991). Emotion in social comparison and reflection processes. In J. M. Suls & T. A. Wills (Eds.), *Social comparison: Contemporary theory and research* (pp. 115–145). Hillsdale, NJ: Erlbaum.
- Van de Ven, N., Zeelenberg, M., & Pieters, R. (2009). Leveling up and down: the experiences of benign and malicious envy. *Emotion, 9*, 419-429.
- Wallace, H.M. & Baumeister, R.F. (2002). The performance of narcissists rises and falls with perceived opportunity for glory. *Journal of Personality and Social Psychology, 82*, 819-834.
- Westen, D. (1990). The relations among narcissism, egocentrism, self-concept, and self-esteem. *Psychoanalysis and Contemporary Thought, 13*, 185-241.
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology, 61*, 590-597.
- Wolf, S.T., Cohen, T.R., Panter, A.T., & Insko, C.A. (2010). Shame proneness and guilt proneness: toward the further understanding of reactions to public and private transgressions. *Self and Identity, 9*, 337-362.
- Zeigler-Hill, V., Clark, C.B., & Pickard, J.D. (2008). Narcissistic subtypes and contingent self-esteem: do all narcissists base their self-esteem on the same domains? *Journal of Personality, 76*(4), 753-774.
- Zizzo, D. J., & Oswald, A. (2001). Are people willing to pay to reduce others' incomes? *Annales d'Economie et de Statistique, July/December*, 39–65.

Figures

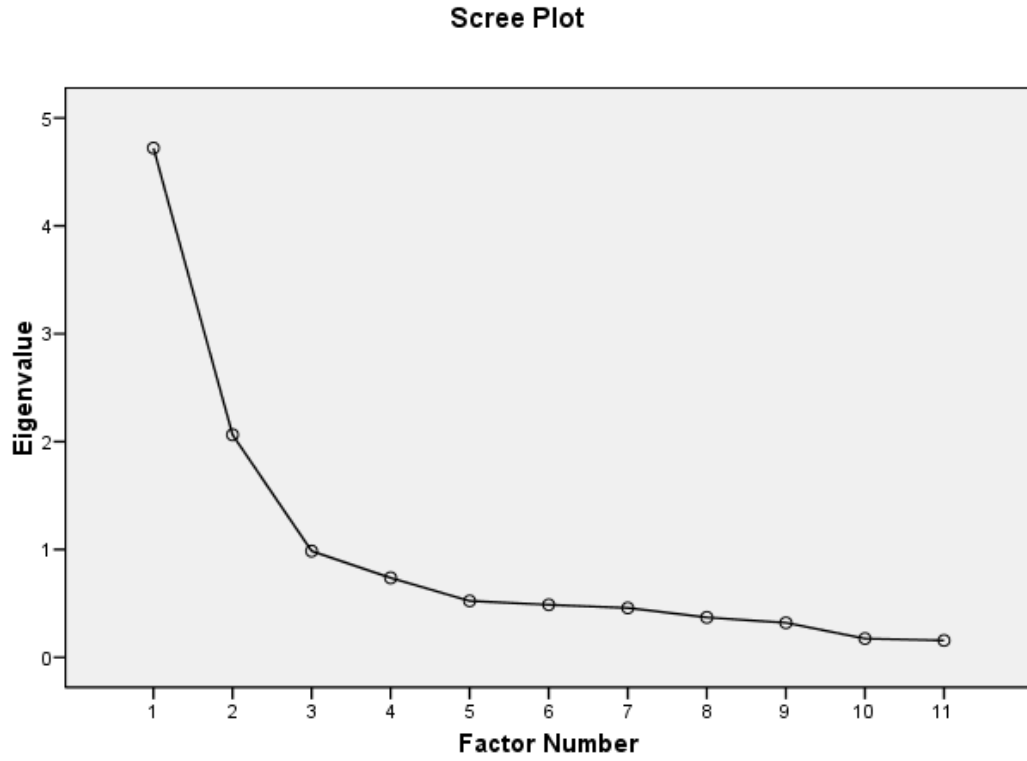


Figure 1: Scree plot from Narcissism factor extraction in Study 1b

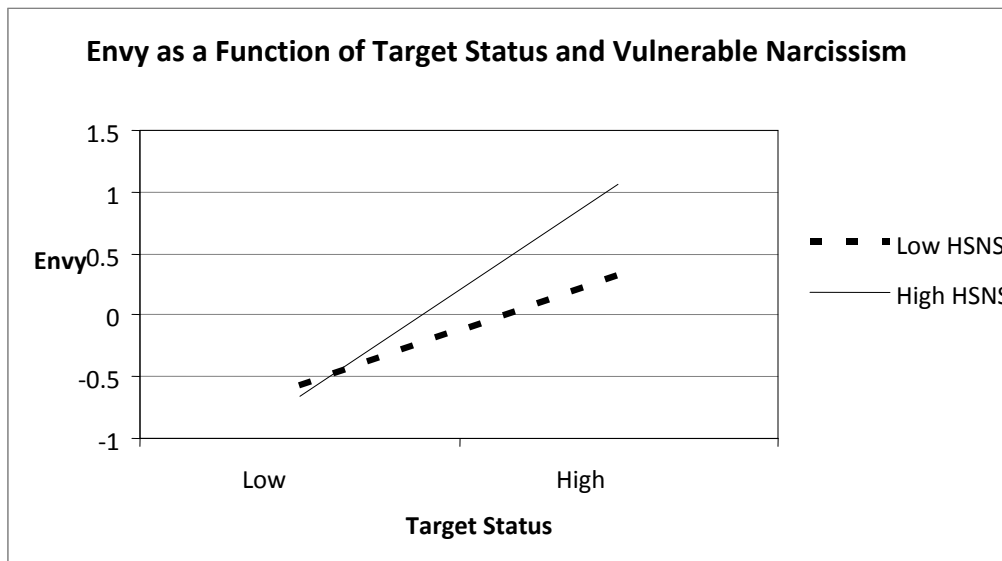


Figure 2: Vulnerable Narcissism by Target Status Interaction in Study 3

Table 1.
Correlations between Trait Ratings in Study 1a (left) and Factor-analytic results from Study 1b (right)

	Study 1a (N = 192)							Study 1b (N = 151)		
	1.	2.	3.	4.	5.	6.	7.	Factor 1 (Vulnerability)	Factor 2 (Grandiosity)	
1. Dispositional Envy Scale (DES)	.90							--	--	
2. Chronic Schadenfreude Scale (CSS)	.60**	.90								
3. Narcissistic Personality Inv. (NPI)	-.10	.05	.83					-.06	.79	
4. Grandiose Exhibitionism (via NPI)	-.06	-.02	.74**	.69				--	--	
5. State-Trait Grandiosity Scale (STGS)	-.08	.12	.56**	.35**	.95			.07	.77	
6. Psychological Entitlement Scale (PES)	.25**	.33**	.35**	.30**	.45**	.87		.28	.48	
7. Hypersensitive Narcissism Scale (HNS)	.52**	.41**	.08	.04	.08	.37**	.75	.62	.06	
8. Contingent Self-Esteem (PNI)	-----							.88	.09	
9. Exploitativeness (PNI)	-----							.20	.64	
10. Self-sacrificing Self-enhancement (PNI)	-----							.52	.29	
11. Hiding the Self (PNI)	-----							.58	.00	
12. Grandiose Fantasy (PNI)	-----							.58	.43	
13. Devaluing (PNI)	-----							.89	.16	
14. Entitlement Rage (PNI)	-----							.85	.22	
								<i>β</i>	<i>β</i>	
								Dispositional Envy Scale (DES):	.69**	-.16**
								Chronic Schadenfreude Scale (CSS):	.56**	.29**

Table 2.
Correlations between Self- and Informant-Ratings on Traits and Envy Components in Study 2 (N = 121)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Traits														
1. NPI Self-Rating	.82 (40)													
2. HSNS Self-Rating	-.04	.73(10)												
3. DES Self-Rating	-.17	.52**	.88 (8)											
4. PES Self-Rating	.37**	.19*	.13	.84 (9)										
5. NPI Informant-Rating	.45**	-.03	-.14	.20*	.84 (40)									
6. HSS Informant-Rating	-.01	.08	.15	.03	.20*	.81 (10)								
7. DES Informant-Rating	-.03	.13	.26**	-.02	.01	.52**	.92 (8)							
8. PES Informant-Rating	.05	-.05	.00	-.02	.37**	.59**	.46**	.87 (9)						
9. Self Esteem Self-Rating	.24**	-.51**	-.64**	.01	.24**	-.03	-.15†	.06	.89 (10)					
Components of Envy														
10. Inferiority Feelings	-.12	.37**	.51**	-.01	-.06	.09	.07	-.07	-.44**	.92 (4)				
11. Depressive Feelings	-.07	.33**	.53**	.10	.00	.14	.17†	.03	-.36**	.60**	.88 (4)			
12. Subjective Injustice	-.13	.22*	.49**	.19*	-.16	-.00	.05	-.06	-.37**	.42**	.41**	.90 (6)		
13. Hostile Feelings	.10	.20*	.34**	.22*	.18	.17	.13	.10	-.15†	.48**	.51**	.52**	.90 (4)	
14. Ill Will	.20*	.18	.36**	.26*	.18	.11	.13	.05	-.08	.33**	.43**	.47**	.73**	.830 (3)

Note. †0.05 < p < 0.10, *p < 0.05, **p < 0.01. Cronbach's alphas have been reported along the diagonal with the number of items in parentheses.

Table 3.
Emotional Reactions as a function of Target Status in Study 3 (N = 69)

Emotional Reactions	Low-Status Target (<i>n</i> = 37)		High-Status Target (<i>n</i> = 32)		<i>d</i>	Group Comparisons	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		t-statistic	p-value
Envy Index	0.69	1.14	4.40	2.51	1.90	8.09	.000
Dejection Index	0.71	1.07	2.43	1.89	1.12	4.72	.000
Hostility Index	0.70	1.15	4.77	2.28	2.25	9.54	.000
Resentment Index	0.68	1.01	3.14	1.84	1.17	5.77	.000
Admiration Index	4.38	2.15	3.39	2.09	-0.47	1.95	.056
<i>Schadenfreude</i>	1.1	1.27	4.03	2.80	1.44	5.73	.000

Table 4.
Correlations between Narcissistic Traits, Dispositional Envy, and Emotional Reactions in Study 3 (N = 69)

	1	2	3	4	5	6	7	8	9
1. Narcissistic Personality Inventory (NPI)	.75 (16)								
2. Hypersensitive Narcissism Scale (HSNS)	.05	.84 (10)							
3. Dispositional Envy Scale (DES)	-.14	.58**	.92 (8)						
4. Psychological Entitlement Scale (PES)	.41**	.41**	.31**	.89(9)					
Emotional Reactions									
5. Envy_index	-.07	.35**	.34**	.21†	.92 (3)				
6. Hostility_index	.07	.29*	.30*	.18	.73**	.94 (6)			
7. Dejection_index	.08	.33**	.33**	.30*	.82**	.57**	.67 (3)		
8. Resentment_index	.04	.40*	.30*	.13	.82**	.81**	.73**	.65 (4)	
9. Admiration_index	-.13	-.11	-.05	-.10	-.12	-.46**	.06	-.20	.90 (6)

Note. †0.05 < p < 0.10, *p < 0.05, **p < 0.01. Cronbach's alphas have been reported along the diagonal with the number of items in parentheses.