

Burning With Envy? Dispositional and Situational Influences on Envy in Grandiose and Vulnerable Narcissism

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Abstract

Research on narcissism and envy suggests a variable relationship that may reflect differences between how vulnerable and grandiose narcissism relate to precursors of envy. Accordingly, we proposed a model in which dispositional envy and relative deprivation differentially mediate envy's association with narcissistic vulnerability, grandiosity, and entitlement. To test the model, 330 young adults completed dispositional measures of narcissism, entitlement, and envy; one week later, participants reported on deprivation and envy feelings toward a peer who outperformed others on an intelligence test for a cash prize (Study 1) or earned higher monetary payouts in a betting game (Study 2). In both studies, structural equation modeling broadly supported the proposed model. Vulnerable narcissism robustly predicted episodic envy via dispositional envy. Entitlement—a narcissistic facet common to grandiosity and vulnerability—was a significant indirect predictor via relative deprivation. Study 2 also found that (a) the grandiose leadership/authority facet indirectly curbed envy feelings via dispositional envy, and (b) episodic envy contributed to schadenfreude feelings, which promoted efforts to sabotage a successful rival. Whereas vulnerable narcissists appear dispositionally envy-prone, grandiose narcissists may be dispositionally protected. Both, however, are susceptible to envy through entitlement when relative deprivation is encountered.

Research on narcissists has found them to be entitled, self-aggrandizing, exploitative, arrogant, and self-centered, traits that imply a belief in one's superiority (Horvath & Morf, 2010; Krizan & Bushman, 2011). Perhaps surprisingly, narcissists have also been characterized as envious in clinical writings (Kernberg, 1984) and the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* (American Psychiatric Association, 2013). R. Smith and Kim (2007) define envy as “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). The inclusion of inferiority feelings as central to the experience of envy suggests that narcissists paradoxically feel both smugly superior and painfully inferior to others. Although this complex set of relations is plausible, empirical evidence for it is rather meager and inconsistent.

A potential resolution to this paradox has emerged from a growing body of research supporting the existence of distinct grandiose and vulnerable narcissistic phenotypes (Cain, Pincus, & Ansell, 2008). These phenotypes share an underlying exaggerated sense of self-importance and entitlement (Dickinson &

Pincus, 2003; Russ, Shedler, Bradley, & Westen, 2008) as well as impaired self-esteem regulation (Ronningstam, 2011). When expressed, however, narcissistic grandiosity often takes on domineering, aggressive, and exhibitionistic interpersonal styles, whereas narcissistic vulnerability may manifest in worry-proneness, hypersensitivity, and vulnerability to life's traumas (Wink, 1991). Moreover, the phenotypes display divergent patterns of correlations with self-esteem and shame (Pincus et al., 2009), Big Five personality traits (Miller & Maples, 2011), social motives (Foster & Trimm, 2008), and various interpersonal behaviors and psychopathology (Miller et al., 2011). These substantive differences suggest they may also diverge with respect to enviousness.

Initial research suggested that narcissistic vulnerability, but not grandiosity, was related to dispositional envy (Gold, 1996; Luglio, 2002). Krizan and Johar (2012) provided the first

The authors would like to thank Michael Ellery, Robert Martin, and Don Stewart for their contributions to the research.

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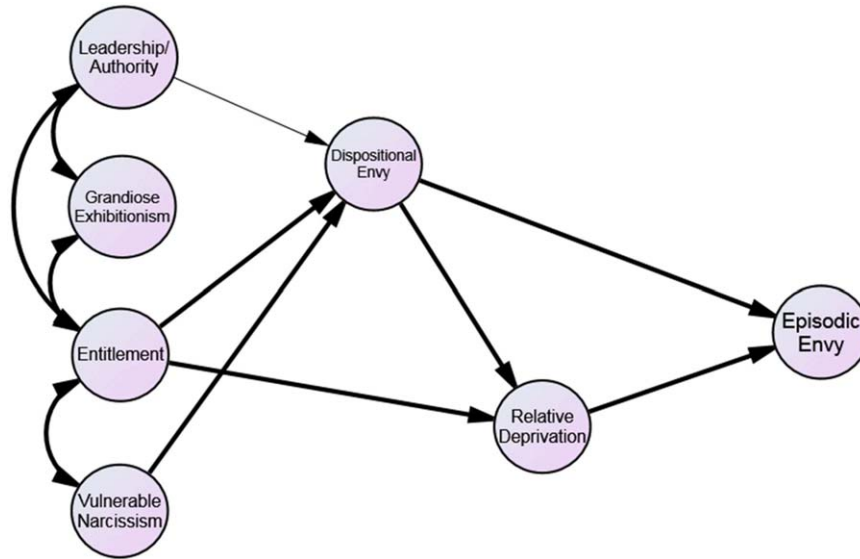


Figure 1 Conceptual model relating grandiose narcissism (Leadership/Authority, Grandiose Exhibitionism), entitlement, and vulnerable narcissism to envy. Thick arrows indicate positive predictive paths or covariances; thin arrows indicate negative predictive paths.

comprehensive investigation into the relationship between grandiose and vulnerable narcissism and envy. They observed that vulnerable, but not grandiose, narcissism was positively correlated with dispositional envy across self- and informant reports. In addition, vulnerable narcissism was positively and significantly correlated with 4 of 5 cognitive components of episodic envy (inferiority feelings, depressive feelings, subjective injustice beliefs, and hostile feelings) when recalling a past example of envy, whereas grandiose narcissism was only associated with increased ill will. Finally, they found that elevated levels of vulnerable, but not grandiose, narcissism increased the likelihood of envy feelings and intensified subsequent schadenfreude in response to a misfortune befalling a high-status hypocritical character.

The available empirical evidence suggests that vulnerable narcissism exhibits a stronger and more robust association with envy than grandiose narcissism. One possible explanation is that grandiose narcissism entails a mixture of adaptive and maladaptive elements (Ackerman et al., 2011), with the former offering some protection against envy. Indeed, grandiose narcissists may be less likely to find themselves in situations that elicit envy because they tend to be socially skilled (Wink, 1991) and well-liked upon first impression (Paulhus, 1998), and they excel in situations that offer self-enhancement opportunities (Wallace & Baumeister, 2002). Alternatively, grandiose narcissists may be affected by intense envy that is defended against or beyond conscious awareness, as suggested by their exaggerated affective and behavioral reactivity to criticisms and defeats (Kernberg, 1984, 2007; Ronningstam, 2005) or aggression following ego threat (Bushman & Baumeister, 1998).

Vulnerable narcissists appear to have no such protection against envy. They are prone to feeling inferior (Ronningstam, 2009) and hostile (Miller, Gentile, Wilson, & Campbell,

2013; Miller, Price, Gentile, Lynam, & Campbell, 2012), both of which are central components of envy. Vulnerable narcissists may be susceptible to envy partly because their self-concept is not bolstered by high levels of agency or extraversion, but rather is undermined by high levels of neuroticism (Miller et al., 2011; Miller et al., 2012).

In the following section, we propose an integrated model of both grandiose and vulnerable expressions of narcissistic envy as a means of organizing and clarifying the theoretical and empirical relations that link narcissism and envy (see Figure 1). Our model expands on prior research by proposing that intermediary variables of dispositional envy and relative deprivation may help to explain why narcissists may be more susceptible to envy, and it accounts for the divergent relations between narcissistic vulnerability and grandiosity via differences in the number and strength of paths linking each phenotype to envy. As described later, we separated out relatively adaptive (leadership and authority) and maladaptive (grandiose exhibitionism) aspects of narcissistic grandiosity to further illuminate these relations (Ackerman et al., 2011), while also examining the role of entitlement—a feature of both narcissistic grandiosity and vulnerability—in promoting envy reactions. We also address some of the methodological limitations in the literature by testing the model through (a) inducing feelings of envy toward real, rather than hypothetical, others through laboratory situations involving deprivation using financial incentives; (b) using a costly aggression measure thought to capture behavioral consequences of envy (Zizzo & Oswald, 2001); and (c) using structural equation modeling (SEM) to evaluate the role of our proposed mediators of the narcissism–envy link to yield a rigorous and detailed assessment of the model.

Consistent with the emerging consensus in the literature reviewed above that narcissism encompasses grandiose and

vulnerable phenotypic expressions, the proposed model construes these grandiose and vulnerable narcissistic traits as exogenous sources of envy that are conceptually linked, but functionally independent. Following Ackerman and colleagues (2011), we distinguish grandiose exhibitionism and leadership/authority as correlated facets of grandiose narcissism to capture the complexity inherent in grandiose narcissism's association with envy. The inclusion of entitlement alongside other narcissistic facets acknowledges its relations to both narcissistic grandiosity and vulnerability while permitting a detailed examination of the unique influences of narcissistic vulnerability, grandiosity, and entitlement on envy. Dispositional envy is hypothesized to exhibit a positive relationship with vulnerable narcissism and entitlement, no relationship with grandiose exhibitionism, and a negative relationship with leadership and authority. Both entitlement and dispositional envy are proposed to accentuate perceptions of relative deprivation and, in turn, manifestations of envy. Below we elaborate on the influences on envy expression of entitlement, dispositional envy, and relative deprivation.

Psychological entitlement entails the belief that one is entitled to and deserving of more than others, and it has been conceptualized as a stable individual difference variable (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004) as well as a rare commonality across otherwise divergent grandiose and vulnerable narcissistic phenotypes (Dickinson & Pincus, 2003). Our model conceptualizes entitlement as a personality dimension linked to narcissistic grandiosity and vulnerability that may uniquely promote precursors of episodic envy: dispositional envy and relative deprivation. Insofar as narcissistic traits foster belief in one's superiority and specialness, whether in overt grandiosity or private fantasy, such beliefs may plausibly foster this sense of entitlement by raising the bar for acceptable social and performance outcomes and the ease with which these results should be achieved. As Krizan and Johar (2012) note, "entitled expectations promote a sense of experiencing inferior outcomes, which likely adds to the bitterness and hostility entitled individuals feel towards others" (p. 1446). Chronic focus on one's perceived lack compared to others stemming from entitlement might plausibly set the stage for a dispositional sensitivity to envy, as well as magnify situational perceptions of unjust deprivation and thereby encourage expressions of envy.

Dispositional envy represents a preparedness to experience envy in many situations insofar as it may chronically direct attention to upward social comparisons, including one's lack of a desired possession and the resulting implications for the self. Chronically envious individuals may be especially likely to view such comparisons as revealing suspected inferiority, perceive their deprivation as unjust, and experience hostility and ill will toward advantaged others (R. Smith, Parrott, Diener, Hoyle, & Kim, 1999). In this way, dispositional envy promotes episodic envy not only through heightened sensitivity to experiences of relative deprivation but also independently of deprivation experiences through persistent attention to

preexisting differences in possessions with respect to others and characteristic appraisals of one's felt desert.

Relative deprivation is a painful emotional state where one wants and feels deserving of a desired object but fails to possess it (Crosby, 1982). According to referent cognitions theory (Folger, 1986), relative deprivation is most likely to occur in situations where an alternative desirable outcome can easily be imagined, future success or amelioration is unlikely, and one's lack is poorly justified. Perceptions that one ought to have experienced better outcomes are central to relative deprivation (H. Smith, Pettigrew, Pippin, & Bialosiewicz, 2012). For narcissists, entitlement may make favorable referent outcomes salient and magnify their deservingness appraisals. However, these amplified expectancies are likely to heighten perceptions of injustice when frustrated and exacerbate narcissists' reactivity to perceived deprivations, fostering expressions of envy. While relative deprivation and envy share some conceptual overlap, as both involve negative affective reactions toward others' superior fortunes and a degree of resentment, envy focuses on an advantaged comparison target and entails additional feelings of hostility and inferiority, whereas relative deprivation typically focuses on what *ought* to be and the system producing the inequality (H. Smith et al., 2012; R. Smith & Kim, 2007).¹

Overview of the Present Studies

In the two studies reported below, we employed a number of methodological strategies to enhance the ecological validity and precision of our tests of the model. In each study, we tested our model by inducing feelings of envy through placing participants in competitive situations in which they were at a relative disadvantage. Structural equation modeling (SEM) was used in both studies to help isolate shared variance in each latent construct from error and measure-specific variance. This is important in light of the different measures of narcissism used in the literature and across the two studies. Finally, Study 2 included measures of *schadenfreude* and costly behavioral aggression that are likely to follow from envy.

STUDY 1

Method

Participants. A total of 126 undergraduate students (80% female) with a mean age of 19.35 years (range = 17–41) from a large western Canadian university participated in exchange for partial course credit. A slight majority of participants identified as White/European ($n = 71$); other ethnicities present included Filipino ($n = 17$), Chinese ($n = 9$), South Asian ($n = 9$), and seven other groups with $n \leq 6$.

Procedures and Measures. Ostensibly, this two-part study examined the relationship between personality factors and the ability to "think clearly and solve problems under time pressure" when monetary incentives were at stake. The questionnaires in Part 1 were administered online in a randomized order. While

Table 1 Study 1: Descriptive Statistics, Scale Reliabilities, and Correlations

	Mean	SD	1	2	3	4	5	6	7
1. Leadership/Authority	5.01	2.91	(.77)	.46*	-.02	.27*	.02	.13	.12
2. Grandiose Exhibitionism	3.70	2.49		(.73)	.03	.41*	.03	.13	.15
3. Vulnerable narcissism	35.11	8.88			(.75)	.38*	.45*	.23**	.25*
4. Entitlement	31.45	10.86				(.89)	.36*	.43*	.28*
5. Dispositional envy	63.85	20.02					(.92)	.37*	.55*
6. Relative deprivation ^a	17.18	8.88						(.88)	.59*
7. Episodic envy ^a	23.61	10.25							(.83)

Note. Some scales underwent square root ([√]) transformation to improve normality. Mean and standard deviation statistics reflect untransformed scales. Scale reliabilities are in parentheses on the diagonal.

* $p < .01$ ** $p < .05$.

the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) remains a popular measure of grandiose narcissism, its factor structure has been debated (e.g., Corry, Merritt, Mrug, & Pamp, 2008). Velicer's (1976) minimum average partial (MAP) test determined that a two-factor solution best fit the data and largely replicated Ackerman and colleagues' (2011) Leadership/Authority (LA) and Grandiose Exhibitionism (GE) factors, but not the Exploitativeness/Entitlement factor ($\alpha = .32$). Accordingly, as we planned to carve out a separate entitlement variable in any case, we used the items from the Psychological Entitlement Scale (PES; Campbell et al., 2004) to do so. Vulnerable narcissism was assessed using the Hypersensitive Narcissism Scale (HSNS; Hendin & Cheek, 1997). Dispositional envy was assessed using a composite measure combining two existing scales: the eight-item Dispositional Envy Scale (DES; R. Smith et al., 1999) and the 20-item York Enviousness Scale (YES; Gold, 1996). Three items from the YES were removed due to low item-total correlations, leaving a 25-item unidimensional scale. All scale reliabilities were adequate or better (see Table 1).

Approximately one week later, groups of 8 to 12 participants met in the laboratory and were given 15 minutes to complete a booklet of 16 matrices (excerpts from Raven's Advanced Progressive Matrices; Raven, Court, & Raven, 1998) that varied in difficulty. The experimenter told each group that \$50 would be distributed evenly among any participants who correctly answered 75% or more of the matrices. Participants were led to believe this criterion was difficult but achievable. Participants indicated their perceived likelihood of winning the \$50 prize prior to completing the matrices, with most expressing moderate-level belief that they would meet this criterion ($M = 4.43$ on a 7-point scale).

Unbeknownst to the participants, one of three trained confederates (two female, one male) participated in each session. Following a script, each confederate continued working on the matrices beyond the experimenter's general instruction to stop writing, requested additional time, and briefly resisted the experimenter's attempt to pick up the booklet. This procedure was designed to foster ill will toward the confederate as trying to get an unfair advantage. After ostensibly scoring the matrices in

a separate room, the experimenter announced that all participants had scored at least 75% correct, and, as per instructions from his research supervisor, the criterion score would be raised from 75% to 90%. This arbitrary change was introduced to create conditions to foster relative deprivation among participants (Folger, 1986), as the confederate was announced as the sole winner of the \$50 cash prize under the stricter criterion. There were no significant differences across confederates on envy ratings ($p > .05$, *ns*).

Participants then completed self-report measures of relative deprivation and episodic envy toward the winner of the \$50 prize. The six-item deprivation scale was constructed using five modified items previously used by Olson and Ross (1984), as well as one item created by the authors.² Episodic envy was assessed using Cohen-Charash's (2009) nine-item Episodic Envy Scale. Prior to debriefing, questions gauging participants' perceptions of the study suggested the procedure was convincing; few participants reported suspiciousness, and most verbally reported strong annoyance and dislike for the confederate and endorsed mild to moderate envy (average item $M = 2.62$, with an observed range from 1 to 5.2 on a 7-point scale).

Results and Discussion

Relative deprivation and episodic envy scales underwent square-root transformations in order to normalize their distributions. Descriptive statistics, scale reliabilities, and correlations are presented in Table 1. The patterns of zero-order correlations were generally consistent with hypotheses, with vulnerable narcissism and entitlement (but neither component of grandiose narcissism) showing significant positive associations with envy.

The proposed SEM was evaluated with AMOS 18.0 using the maximum-likelihood method (Arbuckle, 2009). Latent variables were created for grandiose (LA and GE) and vulnerable narcissism, entitlement, dispositional envy, relative deprivation, and episodic envy by dividing each scale's items into three randomized parcels. Prior factor analyses confirmed that all scales were sufficiently unidimensional to allow parceling.

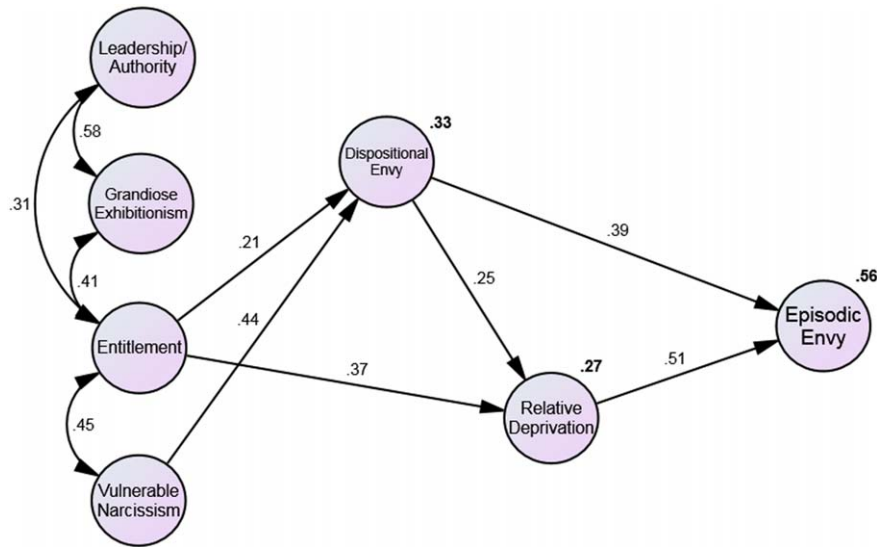


Figure 2 Study 1: Grandiose narcissism (Leadership/Authority, Grandiose Exhibitionism), entitlement, and vulnerable narcissism and their relations to dispositional and episodic envy. All paths are statistically significant ($p < .05$). All coefficients are standardized regression coefficients. Squared multiple correlations are boldfaced.

A two-step modeling procedure (Kline, 1998) assessed the measurement model separately, followed by tests of the structural model against alternative models. Based on Hu and Bentler’s (1999) recommendations, we evaluated our overall model based on multiple fit indices, including the comparative fit index (CFI; values close to .95 or higher), root mean square error of approximation (RMSEA; values close to .06 or lower), and the standardized root mean square residual (SRMR; values close to .08 or lower). Additionally, the criterion of a value below 2 on the χ^2/df statistic was used in place of the traditional p -value, which may be overly sensitive to modest departures from perfect fit that are tolerable in personality research (Byrne, 2010).

The initial test of our measurement model revealed adequate fit to the data, $\chi^2/df = 1.64$, CFI = .934, RMSEA = .072 (.056–.087 with 90% confidence), SRMR = .073. We examined several possible indicators of model misspecification, including the adequacy of our factor loadings. All loadings were statistically significant ($p < .001$) and approached or exceeded recommended values of .7 (Lei & Wu, 2007), with most indicators well in excess of these minimum values. Mardia’s multivariate kurtosis was acceptable (critical ratio = 2.40), and only one large standardized residual ($z = 2.81$) was identified, with most being relatively small ($z < 1$). Modification indices were examined to assess model misspecification; no substantive and theoretically plausible modification indices were identified.

In the second step, we evaluated our hypothesized structural model. Covariance between vulnerable narcissism and the grandiose LA and GE factors was constrained to zero, consistent with our hypotheses and prior research (Ackerman et al., 2011). All predicted paths were statistically significant ($p < .05$), with the exception of the path from LA to dispositional envy

($\beta = -.06$, ns), although this path was in the expected direction. The overall model fit was generally adequate. Next, we examined a fully free path model among latent variables and trimmed nonsignificant paths individually; this procedure removed the LA–dispositional envy paths and did not incorporate any novel paths. A nested model comparison revealed that removing these paths did not significantly worsen model fit, $\Delta\chi^2 (df = 1) = 0.32$, $p = .57$. The final model presented in Figure 2 displayed adequate fit, $\chi^2/df = 1.58$, CFI = .937, RMSEA = .068 (.052–.083 with 90% confidence), SRMR = .077, and explained 56% of episodic envy variance.

In order to test the indirect model effects, we utilized 95% bias-corrected bootstrapped confidence intervals using 5,000 bootstrapped samples in AMOS 18.0. This procedure has been widely advocated as a reliable method for making inferences about indirect effects in mediation analyses (Hayes, 2013). The indirect effect of vulnerable narcissism on episodic envy through intermediary variables of dispositional envy and relative deprivation was significant with a 95% confidence interval that did not contain zero, $\beta = 0.226$, SE = 0.064, 95% CI [.112, .362], $p < .001$. The indirect effect of entitlement on episodic envy was also significant, $\beta = 0.296$, SE = 0.074, 95% CI [.148, .437], $p < .01$.

Taken together, the results are consistent with recent findings suggesting that vulnerable narcissism is closely associated with envy (Krizan & Johar, 2012) and provide a more nuanced perspective on relations between grandiose narcissism and envy. Vulnerable narcissism and entitlement facilitated envious reactions indirectly via trait enviousness, whereas entitlement uniquely exerted an indirect effect on episodic envy via relative deprivation. In contrast, the “healthy” aspects of narcissistic grandiosity involving leadership and authority did not

meaningfully contribute to or protect against envy feelings. Overall, the findings provide broad support for the proposed model.

STUDY 2

Having demonstrated preliminary support for the proposed model relating narcissistic grandiosity and vulnerability to dispositional and episodic envy, we conducted a second study to replicate and extend these findings in a different context. Psychodynamic conceptualizations have long stressed that envious individuals are not only willing to harm advantaged others, but also may accept considerable personal sacrifice to do so, even preferring the destruction of a desired object over witnessing another enjoy it (e.g., Klein, 1957/1975). Accordingly, we assessed whether participants would engage in actions aimed at sabotaging an advantaged player despite incurring financial cost to do so, as well as feelings of *schadenfreude* in response to the sabotaged rival's downfall. We also enhanced our measurement of narcissism by incorporating the Pathological Narcissism Inventory (PNI; Pincus et al., 2009).

Our second study utilized a paradigm developed by Zizzo and Oswald (2001) wherein individuals could choose to sabotage an advantaged rival by spending one's monetary earnings to "burn" a portion of the opponent's earnings. As in Study 1, we assessed self-reported dispositional and episodic envy and sought to induce envy feelings in student participants toward other student competitors. We expected that all significant paths from Study 1 would be replicated, and that the paths from vulnerable narcissism may be stronger owing to assessing more pathological content with the PNI (Pincus et al., 2009).

Method

Participants. To ensure adequate power ($> .80$), we sought a sample of 200 participants based on published recommendations (e.g., McQuitty, 2004), and a power analysis based on the RMSEA (Preacher & Coffman,). The final sample included 204 students (70% female) with an average age of 19.14 years (range = 17–44) from a western Canadian university who earned partial course credit. A slight majority of participants identified as White/European ($n = 116$), although a variety of other ethnicities were present, including Filipino ($n = 27$), Chinese ($n = 16$), South Asian ($n = 12$), and seven other groups with $n \leq 10$.

Procedures and Measures. This study was conducted in two parts separated by approximately one week, ostensibly investigating the relationship between personality factors and betting behaviors. In Part 1, participants completed online questionnaires in a randomized order that included all dispositional narcissism, entitlement, and envy measures used in Study 1, as well as the 52-item PNI (Pincus et al., 2009), which captures

pathological processes characteristic of narcissistic grandiosity and vulnerability.

A MAP test (Velicer, 1976) involving the three NPI and seven PNI subscale totals and HSNS and PES scale totals revealed that a two-factor solution, representing vulnerable and grandiose narcissism, best fit the data and explained 40% and 18% of the variance, respectively. Because the PES demonstrated weak loadings on both factors (Factor 1: .40; Factor 2: .34), we retained it as a separate exogenous variable consistent with Study 1. Factor 1, representing vulnerable narcissism, contained the HSNS and six of seven PNI factors. Items from these scales were blended in three parcels to measure the latent vulnerable narcissism variable. Factor 2, representing grandiose narcissism, was composed of the NPI LA and GE factors.³ However, a follow-up item-level factor analysis supported the retention of the original LA and GE distinction used in Study 1. Accordingly, the only measurement difference in Study 2 involves vulnerable narcissism via the inclusion of the PNI.

In Part 2, participants met in the laboratory in groups of four and were introduced to a competitive betting game in which they made wagers on the outcome of a six-sided die roll. If a one or two was rolled, they won twice their bet and kept their wager; otherwise, the wager was lost. To heighten participants' motivation, they were informed that they could keep all winnings. To promote envious reactions toward opponents in the adjacent room, participants answered an ambiguous factual question that served as the basis for putting them at a competitive disadvantage in the game. Specifically, players were placed in Room A or B based on their answer. Participants in both rooms were told their answers were further from the correct answer, and consequently they would begin the betting rounds with less money (500 vs. 1,000 *doblons*, a fictional currency that converts to \$5 and \$10, respectively) and wager less per round (100 vs. 150 *doblons*). Participants' inferior outcomes were made salient by recording scores in full view of the participants at all times. Following five betting rounds, participants always had less earnings than at least one opposite-room opponent (often both) and completed a questionnaire assessing relative deprivation and envy feelings toward their most successful rival. On average, participants endorsed mild feelings of deprivation (average item $M = 2.77$, observed range = 1–6.83) and envy (average item $M = 2.08$, observed range = 1–4.67; both on a 7-point scale).

To assess whether envy might promote acts of sabotage toward an advantaged rival even at a significant cost to oneself, participants were told that they could choose to spend any portion of their monetary earnings to eliminate six times that amount of any opponent's earnings, and that they could eliminate earnings from multiple opponents. We used a costly 6:1 ratio to ensure that only those feeling sufficiently envious would spend prospective monetary earnings to burn an advantaged opponent. To prevent participants from burning their opponents because they anticipated having their earnings burned by other players, participants were told that their advantaged opposite-room opponents would not be allowed to participate in the elimination round. To ensure participants understood the task, they

Table 2 Study 2: Descriptive Statistics, Scale Reliabilities, and Correlations

	Mean	SD	LA	GE	VN	ENT	DE	RD	EE	BA	SCH
1. Leadership/Authority	4.46	2.83	(.76)	.49*	-.09	.13 [†]	-.16**	.07	.00	.03	-.05
2. Grandiose Exhibitionism	3.70	2.32		(.70)	.08	.24*	-.03	.15**	.13 [†]	.01	-.01
3. Vulnerable narcissism	131.25	41.19			(.96)	.29*	.75*	.24*	.35*	.03	.29*
4. Entitlement	29.39	9.55				(.87)	.26*	.37*	.25*	.05	.28*
5. Dispositional envy ^a	61.33	19.18					(.93)	.32*	.37*	.09	.40*
6. Relative deprivation ^a	16.63	7.42						(.88)	.58*	.16**	.51*
7. Episodic envy ^b	18.71	8.06							(.83)	.08	.54*
8. Burned amount ^b	387.30	530.81								(n/a)	.19**
9. Schadenfreude ^{b,c}	9.84	5.57									(.88)

Note. LA = Leadership/Authority; GE = Grandiose Exhibitionism; VN = vulnerable narcissism; ENT = entitlement; DE = dispositional envy; RD = relative deprivation; EE = episodic envy; BA = burned amount (cents); SCH = schadenfreude. Some scales underwent square root (^a) or logarithmic (^b) transformation. Some correlations (^c) are limited to participants who burned ($n = 133$). Mean and standard deviation statistics reflect untransformed scales. Scale reliabilities are in parentheses on the diagonal.

* $p < .01$; ** $p < .05$; [†] $p < .1$.

were provided with examples of hypothetical burning choices and their effect on final payouts for all players. In actuality, 65% of participants chose to spend a portion of their earnings to burn others' earnings, suggesting the study procedures were successful in motivating hostile, costly actions in most participants.

Following the elimination round, participants learned the final payouts for all players and completed a four-item questionnaire created by the authors assessing feelings of *schadenfreude*.⁴ On average, participants endorsed mild feelings of schadenfreude (average item $M = 2.90$, observed range = 1–6.75 on a 7-point scale). Following a debriefing outlining all deceptive elements and study purposes, participants were paid their earnings and dismissed.

Results and Discussion

To improve normality, we used log-transformed episodic envy and burning amount and square root-transformed dispositional envy, relative deprivation, and schadenfreude scores. Descriptive statistics, scale reliabilities, and correlations are presented in Table 2. All scale reliabilities were adequate or better.

Consistent with findings from Study 1, vulnerable narcissism was uncorrelated with either LA or GE and was distinguished from them by a strong positive correlation with dispositional envy as well as moderate positive correlations with relative deprivation, episodic envy, and schadenfreude. Similarly, GE was moderately and positively correlated with entitlement (although not as strongly as in Study 1), as well as weakly and positively correlated with relative deprivation and episodic envy (marginally significant). The LA factor was generally unrelated to most variables but was negatively correlated with dispositional envy.

On average, participants spent nearly \$0.65 (approximately 16% of their earnings; range = 0–100%) in order to burn \$3.87 of their opponents' earnings, and 65% of participants chose to burn at least one opponent. Indeed, the tendency to give up a

portion of their earnings to burn opponents' earnings was positively correlated with deprivation feelings ($r = .16, p < .05$). A subsequent correlation analysis using only participants who chose to burn others' earnings ($n = 133$) indicated that burning amount was positively correlated with entitlement ($r = .24, p < .01$), deprivation feelings ($r = .21, p < .05$), and schadenfreude ($r = .19, p < .05$).

As in Study 1, each scale was randomly distributed into three parcels after confirming sufficient unidimensionality. The measurement model displayed adequate fit to the data, $\chi^2/df = 1.39$, CFI = .978, RMSEA = .044 (.029–.057 with 90% confidence), SRMR = .046. All parcels approached or exceeded satisfactory loadings onto the latent variables, with the majority well in excess of minimum recommended values (Lei & Wu, 2007). Multivariate kurtosis was acceptable (critical ratio = 2.90). Modification indices were examined, although no substantive and theoretically plausible additions were identified. No large standardized residuals were observed.

The hypothesized structural model had similarly adequate model fit statistics, and all paths and covariances were significant ($p < .05$) and in the expected direction, with the exception of the entitlement–dispositional envy path ($\beta = .06, ns$). No large standardized residuals were observed to suggest significant model misspecification. The final model depicted in Figure 3, removing the sole nonsignificant path, demonstrated adequate fit, $\chi^2/df = 1.39$, CFI = .977, RMSEA = .044 (.030–.056 with 90% confidence), SRMR = .056, and explained 44% of episodic envy variance.

The indirect model effects were assessed using the same 95% bias-corrected bootstrapping procedure used in Study 1. The indirect effects of both vulnerable narcissism and entitlement on episodic envy were positive and significant with confidence intervals that did not include zero—vulnerable narcissism: $\beta = .282, SE = .061, 95\% \text{ CI } [.165, .392], p < .01$; entitlement: $\beta = .187, SE = .047, 95\% \text{ CI } [.103, .276], p < .01$. In contrast, the indirect effect of LA on episodic envy was negative and significant: $\beta = -.045, SE = .024, 95\% \text{ CI } [-.112, -.008], p < .05$.

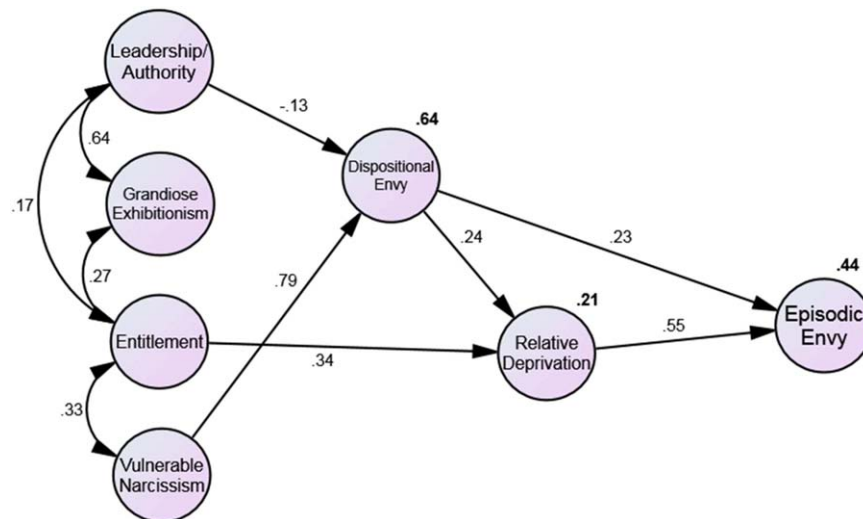


Figure 3 Study 2: Grandiose narcissism (Leadership/Authority, Grandiose Exhibitionism), entitlement, and vulnerable narcissism and their relations to dispositional and episodic envy. All paths are statistically significant ($p < .05$). All coefficients are standardized regression coefficients. Squared multiple correlations are boldfaced.

In order to provide a strict replication of Study 1, we repeated the model analysis procedure using HSNS-derived vulnerable narcissism parcels. The results largely replicated the model depicted in Figure 3, although, as in Study 1, the path from LA to dispositional envy was negative but not statistically significant ($\beta = -.08$, *ns*). Model fit was adequate, $\chi^2/df = 1.51$, CFI = .961, RMSEA = .050 (.038–.062 with 90% confidence), SRMR = .064, and explained 44% of episodic envy variance. Notably, the 95% bias-corrected bootstrapped indirect effects of both vulnerable narcissism and entitlement on episodic envy were significant ($p < .001$), consistent with Study 1.

Next, we examined how our model variables predicted the extent to which participants burned, a possible consequence of envy. This analysis should be considered exploratory, as burning has not been studied in the psychological literature. Based on work by R. Smith, Powell, Combs, and Schurtz (2009) and Krizan and Johar (2012) portraying pleasurable feelings of schadenfreude as a natural consequence of felt envy, we hypothesized that participants might have engaged in opportunistic burning in order to experience gratification caused by an envied rivals downfall. While schadenfreude was assessed after burning decisions were made, presumably students may have taken, or anticipated, satisfaction in the opportunity to burn advantaged others' earnings while debating what amount to spend. To evaluate these predictions, we inserted schadenfreude and burning variables to the model subsequent to episodic envy. We had anticipated that episodic envy, schadenfreude, and relative deprivation would directly predict burning amount; of these, only the schadenfreude–burning path was statistically significant and retained in the model ($\beta = .47$, $p < .001$), whereas relative deprivation and episodic envy indirectly predicted greater burning via schadenfreude. The model demonstrated good overall fit, $\chi^2/df = 1.29$, CFI = .979, RMSEA = .038 (.024–.050 with 90%

confidence), SRMR = .066, and explained 22% of burning variance. As in the previous model predicting self-reported envy, bias-corrected 95% bootstrapped estimates of the indirect effects on burning indicated that vulnerable narcissism and entitlement predicted greater burning (both $ps < .01$), whereas LA narcissism predicted somewhat less burning ($p < .05$).

GENERAL DISCUSSION

The present study aimed to determine whether the inconsistent link between narcissism and envy reflects the unique characteristics of narcissistic vulnerability and grandiosity, with entitlement as a bridging construct. Specifically, we hypothesized that vulnerable narcissism would be more extensively linked than grandiose facets to episodic envy precursors of dispositional envy and situational relative deprivation, and that entitlement, as a distinct but related facet, would also contribute extensively to envy through these pathways.

The results exhibit a high degree of consistency between Studies 1 and 2 across two distinct experimental paradigms. Consistent with prior research (Krizan & Johar, 2012), narcissistic vulnerability was strongly and consistently linked to envy, whereas grandiose narcissism was not. Also, unique components of narcissistic grandiosity diverged with respect to their relations in the model. Whereas higher levels of entitlement indirectly predicted greater self-reported episodic envy (Studies 1 and 2) and dispositional envy (Study 1 only), the GE facet was consistently unrelated to envy or its precursors. Moreover, the “healthy” LA aspect facilitated a small, though notable, reduction in self-reported envy in the model via dispositional envy (Study 2 only). The two models diverged with respect to only one other path: Entitlement’s positive path to dispositional envy in Study 1 did not replicate in Study 2. Collectively, the findings

highlight the importance of the grandiose–vulnerable distinction and the complexity inherent in grandiose narcissism.

Dispositional and Situational Routes to Envy

The present findings suggest that there may be two relatively distinct routes that link narcissism to envious reactions: a dispositional path via chronic envy and a situational path involving perceptions of personal deprivation. In the former case, vulnerable narcissism entailed unique and marked susceptibility to dispositional envy feelings, which, in turn, promoted stronger feelings of envy toward an advantaged rival in both studies. Conversely, the relatively adaptive leadership and authority facet of grandiose narcissism curbed envy feelings via this trait route in Study 2. The divergence observed along this dispositional path accounts for the variability observed across prior non-experimental survey findings examining narcissism–envy relations and is consistent with a growing body of research suggesting that vulnerable narcissism is uniquely associated with high levels of distress, negative affect, and psychological problems such as depression and anxiety (Miller et al., 2011). Unlike their grandiose counterparts, vulnerable narcissists are poorly protected from chronic feelings of shame and emptiness and are dependent upon external feedback (vs. active self-enhancement strategies) to regulate self-esteem (Cain et al., 2008; Dickinson & Pincus, 2003). These qualities may predispose individuals to more frequent and intense experiences of envy, whereas the adaptive qualities of grandiose narcissism may offer some degree of protection against this emotion. Although entitlement also fostered elevated envy reactions via this dispositional path, the inability to replicate this path suggests that it may be less robust.

In the second, and arguably more interesting, route, situational perceptions of relative deprivation prompted envy feelings toward an advantaged rival. This tendency to perceive the lack of a desired object or attribute as an experience of deprivation appeared to be strengthened by two distinct mechanisms: harboring entitled attitudes and chronic feelings of envy. That dispositional envy can trigger episodic envy both directly and via situationally triggered feelings of relative deprivation testifies to its prepotency. Conversely, the finding that entitlement may potentiate relative deprivation independently of chronic envy reveals narcissists' Achilles' heel, in which seemingly positive beliefs about worthiness and deservingness set the stage for situational experiences of deprivation and envy. As entitlement is related to both narcissistic grandiosity and vulnerability (Russ et al., 2008), this suggests that the frustration of narcissistic entitlements may be a common, cross-cutting narcissistic route to envy.

Simply put, the present study identifies two important routes linking narcissism to envy feelings due to both dispositional and situational factors. Susceptibility to the first, the dispositional route to envy, appears to be consistently strong among individuals with high levels of vulnerable narcissism owing to their

generally envy-prone personality, whereas grandiose narcissists with elevated leadership and authority traits may be relatively protected from this route to envy. The second route to envy, through situationally primed relative deprivation, is one to which entitled individuals are particularly susceptible.

Envy's Vile Offspring: Schadenfreude and Sabotage?

Experiences of heightened envy, in turn, appeared to set the stage for feelings of schadenfreude, consistent with past research (cf. R. Smith et al., 2009). Schadenfreude reactions were linked to both narcissistic vulnerability and entitlement, suggesting it is a characteristic (and opportunistic) way in which individuals with these traits may attempt to self-regulate after envy feelings are activated. This malicious sense of pleasure was also an important correlate of the extent to which participants aggressed against an advantaged opponent. The fact that such sabotage was also costly to them further underscores its personal significance to their emotional economy. Note that this finding emerged from a key difference between the present study and most studies assessing envy and schadenfreude concerning the cause of the envied rival's failure. Rather than assess schadenfreude after the happenstance failure of a real or hypothetical rival, as is typically done, participants in Study 2 were permitted to engage in behavioral aggression, "burning," to sabotage their (real) rival and thereby directly bring about the hitherto successful rival's failure. Because the burning methodology also exacts a cost from the saboteur, it provides a compelling means of examining the motivations for incidents of sabotage. Further research exploring similar behavioral (e.g., aggression) and cognitive-affective (schadenfreude) consequences of envy toward real rivals in alternative contexts is needed to evaluate the reliability and generalizability of these findings and further explore these consequences of envy.

LIMITATIONS AND FUTURE DIRECTIONS

While the present studies provide support for the distinction between narcissistic grandiosity and vulnerability, the bridging role of entitlement, and their relations to envy, several limitations should be noted. First, and most crucially, the cross-sectional nature of our data is an important limitation in making causal mediational claims, as alternative theoretical models may demonstrate comparable or better fit. Additionally, the structural models examined were relatively complex and would have benefited from a larger sample size to enhance the stability and power of the findings and satisfy the recommendation of five participants per parameter (Bentler & Chou, 1987). Nevertheless, the theoretical model was developed a priori based on clinical writings and empirical research and was broadly supported across two studies with distinct experimental paradigms.

Finally, the nonclinical, predominantly female young adult participant sample in both studies may limit generalizability of these findings. However, we observed a broad range of scores on most study measures, and research elsewhere has supported the utility of narcissism research with nonclinical samples (Miller, Gaughan, Pryor, Kamen, and Campbell, 2009; Pincus et al., 2009).

We contend that the present model provides a meaningful explanation for why narcissism—particularly its vulnerable expression—is envy-prone. Future research might profitably expand on this model by considering a diathesis/stress framework to examine narcissists' experience of envy across various situational contexts and the level of environmental stress or deprivation needed to evoke envy reactions. Such an understanding appears compatible with efforts elsewhere to articulate typical narcissistic processes and behavior, such as the activation of distinctive personality signatures in response to situational triggers (Morf, Torchetti, and Schürch, 2011) or input-intermediary-output chains (Wright, 2014). Within this dynamic framework, we suggest sufficient levels of environmental stress in the form of inferior outcomes or felt desert may prompt characteristic consequences of deprivation perceptions and, in turn, envy feelings. Additionally, the methodological implications from this study include both the importance of including and assessing situational primes for envy (e.g., relative deprivation) as well as separately measuring (or representing) vulnerable narcissism, grandiose narcissism (GE, LA), and entitlement when examining narcissism's relations to envy.

CONCLUSION

Using two distinct paradigms designed to induce envy, we conclude that narcissistic vulnerability is closely linked to envy. However, entitled expectations regarding what one *ought* to have obtained may promote heightened feelings of relative deprivation and envy toward advantaged others when such outcomes are not forthcoming.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. Portions of this research have been reported in Darren Neufeld's master's thesis.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Preparation of this article was supported by grants to the first author from the Social Sciences and Humanities Research Council of Canada and the University of Manitoba.

Notes

1. Relative deprivation and envy have been thought to typically occur in objectively (vs. subjectively) unfair situations involving external and modifiable (vs. internal and unmodifiable) outcomes (Krizan & Smith, 2014). However, perceptions of deprivation may largely lie in the eye of the beholder, with subjective deprivation exhibiting a stronger relationship to outcomes than objective deprivation (H. Smith et al., 2012). We suggest that when narcissists perceive themselves to be deprived (irrespective of objective deprivation), this cognitive appraisal may foster envy feelings and malicious behavior directed at advantaged rivals.
2. Items asked respondents to rate the extent to which they felt deprived of, angry/resentful about not receiving, and deserving of/entitled to the highest score, as well as the extent to which they believed they would have obtained the highest score if given a second chance. All items used a 7-point rating scale (1 = *Not characteristic at all*; 7 = *Extremely characteristic*).
3. The NPI Exploitativeness/Entitlement factor did not load significantly on either factor (both < .35). The PNI Exploitativeness factor loaded on Factor 2 but was later dropped due to measurement differences relative to the dichotomously scored NPI and partial duplication of NPI items.
4. Items asked respondents to rate the extent to which they felt relief that X had been "brought down a level," resented X for his or her high score, smiled upon learning that some of X's money was eliminated, and secretly hoped that X experienced a small failure. The scale used a 7-point format (1 = *Strongly disagree*; 7 = *Strongly agree*).

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