



# The influence of pathological narcissism on emotional and motivational responses to negative events: The roles of visibility and concern about humiliation

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## ABSTRACT

The present study examined the associations between pathological forms of narcissism and responses to scenarios describing private or public negative events. This was accomplished using a randomized two-wave experimental design with 600 community participants. The grandiose form of pathological narcissism was associated with increased negative affect and less forgiveness for public offenses, whereas the vulnerable form of pathological narcissism was associated with increased negative affect following private negative events. Concerns about humiliation mediated the association of pathological narcissism with increased negative affect but not the association between grandiose narcissism and lack of forgiveness for public offenses. These findings suggest that pathological narcissism may promote maladaptive responses to negative events that occur in private (vulnerable narcissism) or public (grandiose narcissism).

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## 1. Introduction

Narcissism is characterized by grandiosity and inflated views of the self. These qualities can be observed, for example, in the tendency for narcissistic individuals to overestimate their attractiveness and intelligence (Gabriel, Critelli, & Ee, 1994). Both clinical and social-personality psychologists have shown considerable interest in narcissism in recent years but attempts to integrate these bodies of literature have been impeded by differences in the definitions and measurement of narcissism (Cain, Pincus, & Ansell, 2008; Miller & Campbell, 2008; Pincus et al., 2009). Clinical psychologists generally think of narcissism as a personality disorder characterized by arrogant or haughty behaviors, feelings of entitlement, a lack of empathy, and a willingness to exploit other individuals (American Psychiatric Association, 2000). This form of narcissism is often associated with emotional instability and the tendency to experience negative emotional states. In contrast, social-personality psychologists usually consider narcissism to be a normally distributed personality feature. The subclinical form of narcissism studied by social-personality psychologists tends to be at least somewhat emotionally resilient and extraverted (Miller & Campbell, 2008). These differences in conceptualization lead

clinical psychologists to think of narcissism as a relatively pathological construct and social-personality psychologists to think of narcissism as at least somewhat “normal” because of its blend of relatively adaptive (e.g., leadership and authority) and maladaptive properties (e.g., exploitation and entitlement; see Miller & Campbell (2008) or Pincus et al. (2009), for extended discussions). In an effort to be consistent with previous research (e.g., Pincus et al., 2009), we will refer to these types of narcissism as *pathological narcissism* and *normal narcissism*, respectively.

One of the costs that narcissistic individuals face for holding such potentially inflated self-views is that they may experience extreme reactions to events that challenge these views. This sort of narcissistic reactivity has been observed for individuals with high levels of normal narcissism who confronted threatening achievement events or social events that occurred within the confines of the laboratory (e.g., Barry, Chaplin, & Grafeman, 2006; Besser & Priel, in press a; Besser & Priel, 2009; Bushman & Baumeister, 1998; Kernis & Sun, 1994; Rhodewalt & Morf, 1998; Twenge & Campbell, 2003) or that took place in everyday life (e.g., Bogart, Benotsch, & Pavlovic, 2004; Rhodewalt, 2005; Rhodewalt, Madrian, & Cheney, 1998; Zeigler-Hill, Myers, & Clark, 2010). The observed reactions of individuals with high levels of normal narcissism to these sorts of experiences have included anger (Besser & Priel, 2009; Besser & Priel, in press a), aggressive behavior (Bushman & Baumeister, 1998), decreased self-esteem (Rhodewalt et al., 1998; Zeigler-Hill et al., 2010), and negative emotions (Besser & Priel, 2009; Besser & Priel, in press a; Rhodewalt & Morf, 1998). Additionally, studies have demonstrated that individuals with high

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levels of normal narcissism are prone to derogate or attack those who provide ego-threatening feedback in the form of failure or social rejection (e.g., Bushman & Baumeister, 1998; Bushman, Bonacci, Van Dijk, & Baumeister, 2003; Campbell, Bonacci, Shelton, Exline, & Bushman, 2004; Kernis & Sun, 1994; Twenge & Campbell, 2003) and often refuse to forgive the past transgressions of others (Eaton, Struthers, & Santelli, 2006; Exline, Baumeister, Bushman, Campbell, & Finkel, 2004).

Many of the current theories concerning the reactivity of narcissists are derived, to varying extents, from the *psychodynamic mask model* of narcissism which is based on the influential perspectives offered by Kohut (1966, 1977), Kohut and Wolf (1986) and Kernberg (1975, 1986). Despite important differences in their views of narcissism, Kohut and Kernberg both posit that narcissistic grandiosity serves as a façade that conceals underlying feelings of inferiority and low self-esteem which stem from early experiences of inadequate or insensitive parenting (see Bosson et al., 2008, for a review). The inconsistencies in the self-views of narcissists are believed to be responsible for their heightened reactivity because negative events undermine their tenuously held feelings of self-worth and increase the salience of their negative self-attitudes. That is, threats to self-esteem or other negative events may lead to the emergence of underlying negative self-views which trigger reactions that either reflect these negative self-views (e.g., low self-esteem, anxiety) or serve as attempts to bolster their tenuous feelings of self-worth (e.g., anger, aggressive tendencies).

Explanations for narcissistic reactivity that are based on the psychodynamic mask model generally concern challenges to the grandiose façade of narcissists. It has been suggested, however, that pathological narcissism may be a heterogeneous construct consisting of both a grandiose and a vulnerable form which may be experienced independently of each other, simultaneously, or in an alternating fashion (e.g., Akhtar & Thomson, 1982; Cooper, 1998; Dickinson & Pincus, 2003; Gabbard, 1989; Gabbard, 1998; Gersten, 1991; Hendin & Cheek, 1997; Kohut, 1971; Pincus & Lukowsky, 2010; Pincus et al., 2009; Rathvon & Holmstrom, 1996; Rose, 2002; Røvik, 2001; Wink, 1991; Wink, 1996). Grandiose narcissism is the most easily recognized form of pathological narcissism because it is characterized by exhibitionism, feelings of entitlement, and a willingness to exploit others. This grandiose form of pathological narcissism is clearly represented by the diagnostic criteria for Narcissistic Personality Disorder (American Psychiatric Association, 2000). In contrast to grandiose narcissism which is characterized by arrogance and self-absorption, the vulnerable form of pathological narcissism is characterized by self-reported feelings of inferiority, low self-esteem, shame, helplessness, and a relatively submissive interpersonal style (Cooper & Ronningstam, 1992; Dickinson & Pincus, 2003; Gabbard, 1989; Gramzow & Tangney, 1992; Pincus et al., 2009; Rose, 2002). Individuals reporting high levels of grandiose and vulnerable narcissism appear to differ in the approaches they use to regulate their self-esteem. Individuals with high levels of grandiose narcissism tend to use overt strategies in order to gain admiration and respect, whereas those with high levels of vulnerable narcissism may not seek approval from others directly because they may not be confident in their ability to employ overt strategies (Cooper, 1988; Cooper, 1998; Cooper & Maxwell, 1995; Dickinson & Pincus, 2003; Pincus et al., 2009). As a result of their insecurity, those who possess this vulnerable form of narcissism may be forced to rely on less direct means for regulating their self-esteem such as avoiding confrontation and shamefully withdrawing from situations that fail to provide them with the approval and acceptance they crave so desperately (e.g., Akhtar, 2003).

An important distinction between grandiose and vulnerable forms of pathological narcissism concerns responses to negative events that may threaten their feelings of self-worth. Although less

is known about the reactivity associated with pathological forms of narcissism compared to normal narcissism, a recent study by Besser and Priel (in press a) found that grandiose and vulnerable forms of pathological narcissism differed in terms of their associations with the reported emotional reactions of individuals to threats in the achievement and interpersonal domains. More specifically, participants with high levels of grandiose narcissism were highly responsive to threats concerning achievement failure (i.e., learning that an important promotion had been given to a coworker), whereas those with high levels of vulnerable narcissism were particularly responsive to threats concerning romantic betrayal (i.e., learning that one's lover had been unfaithful). The fact that these events elicited different levels of reactivity for specific forms of pathological narcissism provides initial evidence that individuals with these forms of pathological narcissism may differ with regard to the sorts of experiences that threaten their feelings of self-worth (e.g., Kernberg, 1986; Ronningstam, 2005).

Concern about humiliation may play a vital role in the responses of individuals with pathological forms of narcissism to negative events. The fact that grandiose narcissism is characterized by such a strong desire for respect and admiration coupled with a reliance on others for self-esteem regulation may explain the importance of humiliation in narcissistic reactivity. Given the importance that individuals with high levels of grandiose narcissism place on being viewed positively by others in their social environments, negative experiences such as rejection and failure may be particularly aversive when they take place in public settings because these experiences disrupt their attempts to gain prestige and respect. That is, negative experiences may always be difficult for individuals with high levels of grandiose narcissism to manage, but experiences that occur in public settings may be especially problematic because they elicit feelings of humiliation (Rothstein, 1984; Steiner, 1999). These humiliating experiences may lead to a range of negative emotions for individuals with high levels of grandiose narcissism and may elicit a desire among these individuals to strike back at the transgressor who is responsible for the humiliation in an attempt to protect their feelings of self-worth.

## 2. Overview and predictions

The purpose of the present study was to examine whether individuals with high levels of grandiose and vulnerable narcissism differed in their responses to negative events. The negative events used in this study included interpersonal rejection or achievement failure, with both types of events occurring in private or public settings. In order to assess the responses to these negative experiences, we asked participants to read a scenario describing one of these events and to report their feelings and motivations in response to the situation immediately after reading the scenario. We focused exclusively on negative events because previous studies that have examined the reactivity of narcissistic individuals have generally observed an asymmetry in their responses such that individuals with high levels of normal narcissism tend to be more sensitive to negative events than they are to positive events (e.g., Rhodewalt & Morf, 1998). For example, individuals with high levels of normal narcissism were recently found to report greater decreases in their state self-esteem than those with low levels of normal narcissism on days when they experienced mundane failures (e.g., falling behind on tasks) even though there was no difference in the reactivity of those with high or low levels of normal narcissism to everyday successes (e.g., getting ahead on tasks; Zeigler-Hill et al., 2010). That is, success in everyday situations may not be terribly important for narcissists but failures in mundane activities may be especially meaningful for them because these experiences suggest that their grandiose self-views may be inaccurate.

The underlying rationale for the present investigation was that while individuals with high levels of normal narcissism have clearly been found to exhibit high levels of reactivity in response to negative events, few studies have examined how grandiose and vulnerable forms of pathological narcissism are associated with reactivity (cf. Besser & Priel, *in press a*). We were especially interested in the possibility that individuals with high levels of grandiose narcissism may be particularly reactive to negative experiences that occur in a public setting as opposed to those taking place in a private setting. The reason for this prediction was that individuals with high levels of grandiose narcissism may use other individuals to regulate their feelings of self-worth and these public experiences may interfere with their attempts to maintain and enhance their self-esteem. We were also interested in the possibility that existing concerns about humiliation may be important in determining the reactions of those with high levels of grandiose narcissism to negative events. More specifically, we were interested in examining whether concerns about humiliation mediate the association between grandiose narcissism and responses to negative experiences that occur in public.

Our predictions for vulnerable narcissism were much less certain than our predictions for grandiose narcissism. This uncertainty is not terribly surprising given the relative lack of attention that has been devoted to this form of pathological narcissism. The findings of Besser & Priel (*in press a*) suggest that vulnerable narcissism is associated with strong responses to negative events involving social rejection. However, that study dealt only with relatively private events that did not take place in front of a large group of onlookers. It seemed unclear to us whether vulnerable narcissism would be associated with more or less reactivity to public events than private events. As a result, the present study was able to extend previous studies by exploring the link between vulnerable narcissism and reactions to hypothetical negative events (i.e., interpersonal rejection and achievement failure) occurring in either private or public settings.

### 3. Methods

#### 3.1. Participants

Our sample consisted of 600 Jewish Israeli community participants (300 men, 300 women) who responded to requests posted in various public areas (e.g., clubs, hotels, restaurants, shops) that asked for volunteers to take part in a study concerning personality and mood. We were initially contacted by a total of 680 individuals who were interested in possibly participating in the study but 80 of these individuals declined to participate due to time constraints. Our recruitment of participants ended when we reached 600 participants. Participants were unmarried young adults in their mid-20s (range 20–30 years;  $M = 24.07$ ,  $SD = 2.25$ ) and all of the participants had more than 12 years of formal education with the average number of years being 12.80 (12–17 years,  $SD = 1.12$ ). Participation in the study was voluntary and participants were not paid or compensated for their participation. Of the 600 participants, 300 were randomly assigned to the interpersonal rejection conditions. One hundred and fifty of these participants (74 men, 76 women) were randomly assigned to the private interpersonal rejection condition and 150 (76 men, 74 women) were randomly assigned to the public interpersonal rejection condition. The remaining 300 participants were randomly assigned to the achievement failure conditions. One hundred and fifty of these participants (76 men, 74 women) were randomly assigned to the private achievement failure condition and 150 (74 men, 76 women) were randomly assigned to the public achievement failure condition.

#### 3.2. Procedure

The study was conducted across two separate sessions. For half of the participants, the Time 1 (T1) session took place at the beginning of the week and the Time 2 (T2) session took place 6 days later. For the other half of the participants, the T1 session took place at the end of the week and the T2 session took place 6 days later. An interval of 6 days was selected because it is long enough to allow us to separate the assessment of self-reported predictors from the manipulation conditions and the post-manipulation outcomes that were assessed, but it was still short enough to keep track of participants and minimize attrition. Moreover, the within-subjects pre/post design used in the present study for the assessments of change in mood measures also required this separation to avoid recollection effects. Participants reported individually to a psychology laboratory where they were informed that the present study concerned the association between personality and behaviors that occur in the context of romantic relationships or personal achievement. During the T1 session, participants completed measures of narcissism, concern about humiliation, negative affect, and other measures that were not relevant to the present study. All questionnaires were administered in Hebrew with the original English versions being translated using the back-translation method. Participants were reminded of their right to withdraw from the study if they felt uncomfortable at any point but none elected to do so. Thus, no attrition occurred between the T1 and T2 sessions.

During the T2 session, participants were randomly assigned to read a hypothetical scenario intended to convey private interpersonal rejection, public interpersonal rejection, private achievement failure, or public achievement failure (see Appendix A). The same process used by Besser and Priel (2009) was used to develop and validate these scenarios. More specifically, a pilot study was conducted in which seven independent judges who were blind to the aims of the study rated eight scenarios in a random order concerning their capacity to evoke threat, using scales ranging from 1 (*not at all*) to 7 (*very much*). Four of these scenarios concerned interpersonal rejection and four scenarios concerned achievement failure. The interrater intraclass correlation reliability coefficients (Shrout & Fleiss, 1979) for the ratings of the judges across the scenarios were acceptable ( $ICCs > .93$ ). The scenarios selected for the present study received the highest scores for their capacities to evoke a threat concerning interpersonal rejection (i.e., “Your romantic partner has been having an affair because you were not an adequate partner”) or achievement failure (i.e., “Your professor tells you that your presentation was horrible and that you will receive a failing grade for it”). These scenarios also had the highest levels of interrater agreement and were judged to have the greatest capacity to elicit humiliation and/or shame from participants.

Participants assigned to the interpersonal rejection conditions during the T2 session were instructed to, “Please think of a serious committed romantic relationship that you currently have, have had in the past, or would like to have in the future.” Along similar lines, participants assigned to the achievement failure conditions were instructed to, “Please think of an important academic course that you are currently taking, have taken in the past, or would like to take in the future.” After reading the appropriate hypothetical scenario, the participants were asked to provide reports concerning their affective states at that moment. That is, participants were asked to read the scenarios and then report on how they felt using the same measure of negative affect employed at T1. Participants were also asked to report on their levels of unforgiving motivations concerning the transgressor in the scenario. We controlled for potential order effects by presenting the questionnaires in a random order during both laboratory sessions. The participants were provided with a written debriefing statement at the end of their participation in the study.

### 3.3. Measures

#### 3.3.1. Pathological narcissism

The pathological narcissism inventory (PNI; Pincus et al., 2009) was used to assess grandiose and vulnerable aspects of pathological narcissism. The PNI is a 52-item measure for which responses were made on scales ranging from 0 (*not at all like me*) to 5 (*very much like me*).<sup>1</sup> The PNI measures seven dimensions of pathological narcissism: contingent self-esteem (e.g., “It’s hard for me to feel good about myself unless I know other people like me”), exploitative tendencies (e.g., “I can make anyone believe anything I want them to”), self-sacrificing self-enhancement (e.g., “I try to show what a good person I am through my sacrifices”), hiding of the self (e.g., “When others get a glimpse of my needs, I feel anxious and ashamed”), grandiose fantasy (e.g., “I often fantasize about being recognized for my accomplishments”), devaluing (e.g., “When others don’t meet my expectations, I often feel ashamed about what I wanted”), and entitlement rage (e.g., “It irritates me when people don’t notice how good a person I am”). These seven dimensions, in turn, load onto the two higher-order factors referred to as grandiose narcissism (i.e., exploitative, self-sacrificing self-enhancement, grandiose fantasy, and entitlement rage) and vulnerable narcissism (i.e., contingent self-esteem, hiding of the self, and devaluing). Initial information concerning the reliability and validity of the PNI has shown that it correlates in the expected direction with other measures of narcissism and related constructs such as level of self-esteem, interpersonal style, clinical outcomes, and contingent self-esteem (Pincus et al., 2009; Zeigler-Hill, Clark, & Pickard, 2008). The internal consistencies of the PNI grandiosity and vulnerability subscales were .88 and .90, respectively.

#### 3.3.2. Concern about humiliation

The humiliation inventory (Hartling & Luchetta, 1999) is a 32-item measure that was developed to assess the internal experiences associated with humiliation. This measure consists of two subscales: cumulative humiliation (12 items; e.g., “Throughout your life how seriously have you felt harmed by teasing?”) and fear of humiliation (20 items; e.g., “At this point in your life, how much do you fear being ridiculed?”). The primary difference between these subscales is their time frame. The cumulative humiliation subscale evaluates humiliating experiences from the past to the present and the fear of humiliation subscale evaluates concerns about humiliation in the future. Responses to these items were made on scales ranging from 1 (*not at all*) to 5 (*extremely*). Previous research has found the Humiliation Inventory to possess adequate psychometric properties (e.g., internal consistencies greater than .94; Hartling & Luchetta, 1999). The internal consistencies of the cumulative humiliation and fear of humiliation subscales for the present study were .94 and .96, respectively.

#### 3.3.3. Negative affect

Negative affect was measured before and after exposure to the scenarios using the visual analogue scale (VAS; Albersnagel, 1988). The VAS consists of 14 adjectives used to describe negative affect that comprise three negative affective states: dysphoria (i.e., *depressed, sad, blue, despondent, tormented, and lost*), hostility (i.e., *hostile, irritable, annoyed, and disagreeable*), and anxiety (i.e., *anxious, nervous, uneasy, and tense*). Participants were asked to indicate how they were feeling “at the moment” by placing a vertical mark on each 80-mm line with opposing labels for each adjective (e.g., *not at all sad* to *extremely sad*). Adequate internal consistencies were observed for the subscales of the VAS at T1 (.90 for dysphoria,

.78 for hostility, and .80 for anxiety) and T2 (.91 for dysphoria, .80 for hostility, and .86 for anxiety).

#### 3.3.4. Unforgiving motivations

The 18-item revised transgression-relevant interpersonal motivations inventory (TRIM-18-R; McCullough & Hoyt, 2002; McCullough, Root, & Cohen, 2006) was used to assess current motivations toward the transgressor in the scenario. Participants were asked to rate their level of agreement with the items on scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The TRIM-18-R is composed of three subscales: revenge (5 items; e.g., “I want to make him/her pay” and “I want him/her to get what he/she deserves”), avoidance (7 items; e.g., “I want to avoid him/her” and “I want to live as if he/she doesn’t exist/isn’t around”), and benevolence (6 items; e.g., “I have goodwill toward him/her” and “I want to put the hurt aside, so we can resume our relationship”). Previous research has found the TRIM to possess good convergent and discriminant validity (McCullough, Bellah, Kilpatrick, & Johnson, 2001; McCullough, Emmons, Kilpatrick, & Mooney, 2003; McCullough, Fincham, & Tsang, 2003; McCullough & Hoyt, 2002; McCullough et al., 1998). For the present study, the revenge and avoidance subscales were used as indicators of the unforgiving motivations construct and were found to possess adequate internal consistency (i.e., .86 for the avoidance subscale and .85 for the revenge-motivations subscale).

## 4. Results

### 4.1. Descriptive statistics

A series of 2 (domain: interpersonal rejection vs. achievement failure)  $\times$  2 (visibility: private vs. public) ANOVAs were conducted in order to examine whether there were initial differences between the participants randomly assigned to the different conditions for grandiose narcissism, vulnerable narcissism, concern about humiliation, and negative affect ( $F_s < 1.40$ , *ns*). These analyses confirmed the utility of our study design by indicating that there were no significant differences in the variables assessed at T1 (i.e., prior to the experimental manipulation). As a result, any significant effects that emerged at T2 can be attributed to the experimental manipulation and its interaction with individual differences such as narcissism and concern about humiliation.

### 4.2. Manipulation check

In order to examine the efficacy of the threat manipulation, a series of 2 (domain: interpersonal rejection vs. achievement failure [between subjects])  $\times$  2 (visibility: private vs. public [between subjects])  $\times$  2 (time: Time 1 vs. Time 2 [within-subjects repeated measure]) ANOVAs were conducted to assess relative changes in the levels of negative affect (i.e., dysphoria, anxiety, and hostility). Partial eta squared  $\eta_p^2$  was used as a measure of effect size. It is the ratio of the variance accounted for by an independent variable (SSH) to the sum of the variance accounted for by the independent variable and the variance unaccounted for by the model as a whole (SSH + SS). Analyses revealed significant main effects for Time such that participants reported higher levels of negative affect at T2 than at T1 for dysphoria ( $F[1, 596] = 1262.98$ ,  $p < .001$ ;  $\eta_p^2$  effect size = .68, observed power = 1.0), anxiety ( $F[1, 596] = 515.99$ ,  $p < .001$ ;  $\eta_p^2$  effect size = .47, observed power = 1.0), and hostility ( $F[1, 596] = 794.77$ ,  $p < .001$ ;  $\eta_p^2$  effect size = .57, observed power = 1.0). The main effects for Time were qualified by its interactions with domain for dysphoria ( $F[1, 596] = 35.36$ ,  $p < .001$ ;  $\eta_p^2$  effect size = .07, observed power = 1.0), anxiety ( $F[1, 596] = 21.20$ ,  $p < .001$ ;  $\eta_p^2$  effect size = .03, observed power = .99), and hostility

<sup>1</sup> The response scales presented to participants actually ranged from 1 (*not at all like me*) to 6 (*very much like me*) but the data were recoded prior to analysis in order to be consistent with the response scales used by Pincus et al. (2009).



**Table 1**

Relative changes in negative affect and unforgiving motivations following exposure to interpersonal rejection and achievement failure.

	Interpersonal rejection						Achievement failure					
	Private			Public			Private			Public		
	T1 M (SD)	T2 M (SD)	Cohen's <i>d</i>	T1 M (SD)	T2 M (SD)	Cohen's <i>d</i>	T1 M (SD)	T2 M (SD)	Cohen's <i>d</i>	T1 M (SD)	T2 M (SD)	Cohen's <i>d</i>
Dysphoria	15.13 (16.56)	54.05 (18.41)	1.782	14.39 (16.10)	50.28 (20.78)	1.548	15.91 (14.84)	44.92 (19.54)	1.387	17.75 (17.20)	42.11 (20.97)	1.156
Anxiety	25.43 (12.78)	42.54 (11.97)	1.137	23.83 (11.49)	40.64 (13.32)	1.145	25.62 (9.85)	37.67 (13.86)	0.794	26.00 (10.33)	36.44 (13.38)	0.692
Hostility	23.86 (10.32)	43.34 (12.03)	1.307	22.54 (10.92)	42.32 (14.07)	1.328	23.99 (9.27)	37.68 (12.95)	1.020	22.72 (9.83)	37.93 (14.34)	1.028
Avoidance	–	27.79 (4.40)	–	–	27.50 (5.00)	–	–	19.27 (5.35)	–	–	21.86 (5.97)	–
Revenge	–	14.01 (4.40)	–	–	14.19 (4.43)	–	–	10.81 (3.80)	–	–	11.80 (4.68)	–

Note. Avoidance and revenge were only assessed at T2.

( $F[1, 596] = 18.37, p < .001; \eta_p^2$  effect size = .03, observed power = .99). Further examination of these interactions indicated that the reported changes in negative affect were greater for the interpersonal rejection conditions (which concerned imagining their partner having an affair because they were inadequate lovers) than for the achievement failure condition (which involved imagining their professor giving them a failing grade because they gave a bad presentation). Means, standard deviations, and Cohen's  $d$ 's<sup>2</sup> are presented in Table 1.

A 2 (domain: interpersonal rejection vs. achievement failure)  $\times$  2 (visibility: private vs. public) MANOVA was conducted in order to examine the consequences of these negative event scenarios on unforgiving motivation (i.e., avoidance and revenge). These analyses revealed significant main effects for domain ( $F[2, 596] = 131.95, p < .001; \eta_p^2$  effect size = .32, observed power = 1.0) and visibility ( $F[2, 596] = 3.61, p < .05; \eta_p^2$  effect size = .02, observed power = .67). These main effects were qualified by the domain  $\times$  visibility interaction that also emerged ( $F[2, 596] = 5.49, p < .01; \eta_p^2$  effect size = .02, observed power = .85). Further examination of this interaction indicated that the unforgiving motivations that were reported following the interpersonal rejection scenarios were significantly greater than the unforgiving motivations reported following the achievement failure scenarios. Levels of unforgiving motivations were also higher for the public achievement failure condition than they were for the private achievement failure condition. No significant differences in levels of unforgiving motivations were reported between the private interpersonal rejection condition and the public interpersonal rejection condition. Means and standard deviations are presented in Table 1.

#### 4.3. Data analytic strategy

We used structural equation modeling (SEM; Hoyle & Smith, 1994) to examine the link between the forms of pathological narcissism and reactions to these hypothetical negative events. This allowed us to evaluate these associations while assessing measurement errors in the independent and dependent variables as well as auto-correlations among errors in repeated self-reported measures. The SEM analyses were performed with the AMOS software (version 4.0; Arbuckle, 1999) using the maximum-likelihood method. We used the chi-square statistic as a fit index. A nonsignificant chi-square has traditionally been used as a criterion for not rejecting an SEM model because it indicates that the discrepancy between the input covariance matrix and the model implied

covariance matrix is not significantly different. Due to the restrictiveness of the chi-square approach for assessing model fit (e.g., Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993; Kenny & McCoach, 2003; Landry, Smith, Swank, & Miller-Loncar, 2000), the following criteria were used in addition to the overall chi-square test of exact fit to evaluate the proposed models: the relative/normed chi-square ( $\chi^2/df$ ; Wheaton, Muthen, Alwin, & Summers, 1977), the non-normed fit index (NNFI), the comparative fit index (CFI), the root mean square of approximation (RMSEA), and the Akaike information criterion (AIC). Models for which  $\chi^2/df$  was  $\leq 2$  (Tabachnick & Fidell, 2007), CFI and NNFI were each greater than 0.95, and the RMSEA index was between 0.00 and 0.06 with confidence intervals between 0.00 and 0.08 were deemed acceptable (Hu & Bentler, 1999). These moderately stringent acceptance criteria clearly reject inadequate or poorly specified models while accepting models for consideration that meet real-world criteria for reasonable fit and representation of the data (Kelloway, 1998).

We used Baron and Kenny's (1986) criteria for mediation to examine the hypothesis that levels of concerns about humiliation mediate the association between pathological narcissism and relative change in negative affect and unforgiving motivations. Using this strategy, in the first SEM model, the direct relationships between the independent variables (levels of grandiose and/or vulnerable narcissism) and the dependent variable (relative change in negative affect or unforgiving motivations following threats) were investigated. If either of these relationships was found to be significant, the mediational model was examined. In the second SEM model, the relationships between the independent variables and the hypothesized mediator (concerns about humiliation) were estimated. In the third SEM model, the relationship between independent variable and the dependent variable, controlling for the hypothesized mediators, was investigated. In this model, mediation would be indicated by the following combination: (a) a significant relationship between the independent variable and the hypothesized mediator, (b) a significant relationship between the hypothesized mediator and the dependent variable, and (c) a decrease in the direct relationship between the independent variable and the dependent variable (Baron & Kenny, 1986; Kenny, Kashy, & Bolger, 1998). If the direct relationship (c) remained significant, partial mediation would be indicated; whereas if this direct relationship no longer remained significant, full mediation would be indicated. As a further test of mediation, MacKinnon, Lockwood, Hoffman, West, and Sheets's (2002)  $z'$  test was used to examine the significance of the indirect relationship between the independent variable and the dependent variable via the hypothesized mediator.

Table 2 presents the intercorrelations between the study variables. These data were provided in order to depict the first-order

<sup>2</sup> These  $d$  metrics are based on the average SD from two means that corrects for dependence between means (within-subjects) using Eq. (8) from Morris and DeShon (2002).

**Table 2**

Intercorrelations for the measures of pathological narcissism, concerns about humiliation, negative affect, and unforgiving motivations.

	Interpersonal rejection											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Grandiose narcissism (T1)	–	.64***	.24**	.18*	.22**	.36***	.43***	.20*	.34***	.26***	.13	.34***
2. Vulnerable narcissism (T1)	.73***	–	.38***	.25**	.25**	.54***	.49***	.17*	.30***	.19*	.01	.17*
3. Dysphoria (T1)	.31***	.37***	–	.67***	.55***	.47***	.32***	.21**	.26**	.25***	-.06	.19*
4. Anxiety (T1)	.25**	.31***	.65***	–	.52***	.39***	.29***	.30***	.30***	.31***	-.04	.20*
5. Hostility (T1)	.22**	.25**	.63***	.60***	–	.30***	.20*	.31***	.29***	.29***	.06	.13
6. Fear of humiliation (T1)	.51***	.59***	.36***	.36***	.24**	–	.66***	.35***	.38***	.31***	.07	.07
7. Cumulative humiliation (T1)	.45***	.51***	.26**	.23**	.17*	.64***	–	.44***	.42***	.34***	.12	.13
8. Dysphoria (T2)	.27***	.33***	.22**	.13	.18*	.20*	.24**	–	.78***	.80***	.20*	.13
9. Anxiety (T2)	.27***	.27***	.29***	.26***	.33***	.13	.16*	.66***	–	.75***	.24**	.20*
10. Hostility (T2)	.25**	.27***	.12	.10	.11	.09	.18*	.68***	.59***	–	.17*	.33***
11. Avoidance (T2)	.03	.07	.12	.15	.05	-.04	.08	.33***	.30***	.31***	–	.14
12. Revenge (T2)	.31***	.22**	.11	.15	.10	.18*	.23**	.37***	.40***	.49***	.42***	–
	Achievement failure											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Grandiose narcissism (T1)	–	.55***	.23**	.15	.14	.31***	.31***	.39***	.36***	.42***	.34***	.39***
2. Vulnerable narcissism (T1)	.60***	–	.50***	.18*	.39***	.53***	.47***	.42***	.35***	.39***	.25**	.36***
3. Dysphoria (T1)	.20*	.43***	–	.59***	.59***	.48***	.41***	.39***	.31***	.29***	.21**	.26**
4. Anxiety (T1)	.04	.21**	.60***	–	.44***	.31***	.28***	.21**	.19*	.18*	.04	.10
5. Hostility (T1)	.15	.28***	.55***	.54***	–	.32***	.30***	.20*	.23**	.25**	.16*	.19*
6. Fear of humiliation (T1)	.29***	.40***	.33***	.22**	.29***	–	.68***	.46***	.32***	.49***	.21*	.24**
7. Cumulative humiliation (T1)	.10	.27***	.23**	.23**	.25**	.46***	–	.40***	.32***	.42***	.28***	.24**
8. Dysphoria (T2)	.15	.33***	.26**	.18*	.30***	.36***	.41***	–	.82***	.75***	.41***	.43***
9. Anxiety (T2)	.24**	.35***	.25**	.18*	.35***	.36***	.39***	.79***	–	.69***	.38***	.43***
10. Hostility (T2)	.18*	.32***	.16*	.16*	.27***	.33***	.35***	.77***	.73***	–	.42***	.50***
11. Avoidance (T2)	.07	.25**	.15	.06	.25**	.21**	.31***	.47***	.48***	.50***	–	.55***
12. Revenge (T2)	.14	.18*	.15	.12	.17*	.08	.22**	.27***	.31***	.40***	.52***	–

Note. Correlations for the public conditions are presented above the diagonals whereas correlations for the private conditions are presented below the diagonals.

correlations among each of the observed indicator variables that are not shown through the assessment of the relations among the latent construct and observed measures examined in the structural model presented in the figures.

#### 4.4. Narcissism and relative changes in negative affect in response to negative events

A model including grandiose and vulnerable narcissism<sup>3</sup> and their effects on relative change in negative affect, defined as a latent factor and including all three simultaneously assessed negative-affect subscales as its indicators, was specified and estimated simultaneously for all four conditions using SEM multiple-group analysis constraining the factor loadings for negative affect to the same values across groups and across time (i.e. the respective T1 and T2 indicators constrained to the same values) as well as constraining the correlated residuals to the same values across groups, with effects of grandiose and vulnerable narcissism left free to be estimated was found to fit the observed data  $\chi^2(77) = 117.70$ ,  $p < .01$ ,  $\chi^2/df = 1.53$ , NNFI = .99, CFI = 1.0, RMSEA = .03 (C.I. .01, .04), AIC = 315.70.

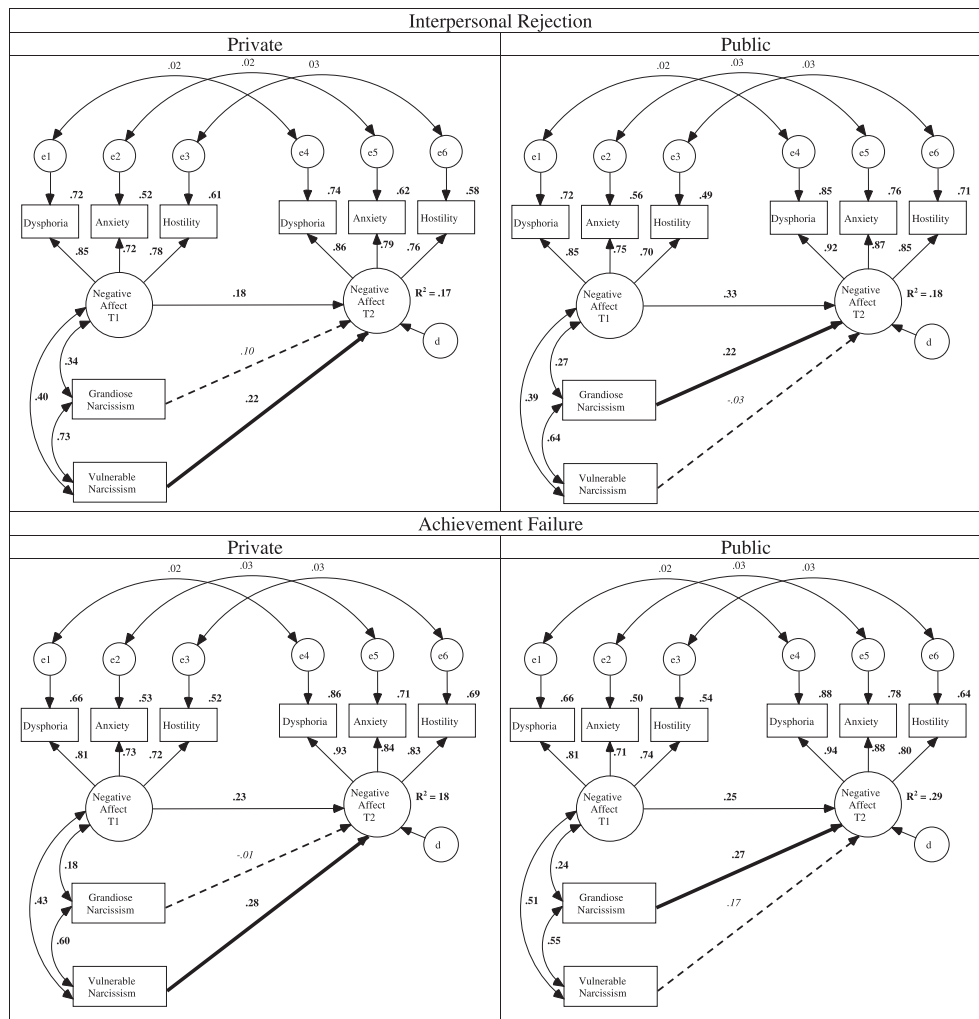
As shown in Fig. 1, vulnerable narcissism significantly predicted increased negative affect for those participants exposed to the private interpersonal rejection condition ( $\beta = .22$ ,  $t = 2.13$ ,  $p < .05$ ), whereas the association for grandiose narcissism was not significant for this condition ( $\beta = .10$ ,  $t = .86$ ,  $ns$ ). The opposite pattern emerged for the public interpersonal rejection condition such that grandiose narcissism was significantly associated with increased

levels of negative affect ( $\beta = .22$ ,  $t = 2.11$ ,  $p < .05$ ) whereas vulnerable narcissism was not a significant predictor ( $\beta = -.03$ ,  $t = -.24$ ,  $ns$ ). The patterns observed for the interpersonal rejection conditions were replicated for the achievement failure conditions: Vulnerable narcissism was associated with increased levels of negative affect following exposure to the private condition ( $\beta = .28$ ,  $t = 2.53$ ,  $p < .01$ ), but grandiose narcissism did not emerge as a significant predictor ( $\beta = -.01$ ,  $t = -.13$ ,  $ns$ ). In contrast, grandiose narcissism was significantly associated with higher levels of negative affect for those exposed to the public achievement failure condition ( $\beta = .26$ ,  $t = 2.99$ ,  $p < .01$ ), whereas vulnerable narcissism was not associated with relative changes in negative affect following exposure to this condition ( $\beta = .17$ ,  $t = 1.68$ ,  $ns$ ).

We compared this model with a model that constrained the path estimates of grandiose narcissism on negative affect for the public conditions and vulnerable narcissism on negative affect for the private conditions to the same values across groups in addition to the constraints of the previous model (i.e., constraining the factor loadings for negative affect to the same values across groups and across time as well as constraining the correlated residuals to the same values across groups). This model obtained the following fit indices:  $\chi^2(85) = 147.07$ ,  $p < .001$ ,  $\chi^2/df = 1.7$ , NNFI = .99, CFI = .99, RMSEA = .04 (C.I. .03, .05), AIC = 329.07. The higher AIC of this model indicate it is a less parsimonious model<sup>4</sup>. Taken together, these results suggest that grandiose narcissism is associated with greater negative affect following negative events that occur in public, whereas vulnerable narcissism is associated with more negative reactions to events that occur in private. The fit of the constrained model is worse than that for the corresponding unconstrained model ( $\Delta\chi^2(df = 8) = 29.37$ ,  $p < .0001$  and  $\Delta AIC = 13.37$ ), thus we conclude that the direct effects

<sup>3</sup> It is important to note that our model controlled for the shared variance (correlation) between grandiose and vulnerable forms of pathological narcissism. This is important because these constructs were measured with scales from the same self-report instrument. Moreover, this correlation may reflect the core of pathological narcissism that is common to both the grandiose and vulnerable expressions (e.g., Pincus et al., 2009; Zeigler-Hill et al., 2008).

<sup>4</sup> Burnham and Anderson (1998) suggest if AIC values for one model (e.g., path estimates were free to be estimated) are 10 or more units lower than AIC values for a second model (e.g., constrained to the same values across groups), there is strong evidence that the first model is better than the second model.



**Fig. 1.** The effects of grandiose and vulnerable narcissism on relative change in negative affect under the four study conditions. *Note:* Rectangles indicate measured variables and large circles represent latent constructs. Small circles reflect residuals (e) or disturbances (d); bold numbers above or near endogenous variables represent the amount of variance explained ( $R^2$ ). Bidirectional arrows depict correlations and unidirectional arrows depict hypothesized directional links. Standardized maximum likelihood parameters are used. Bold estimates are statistically significant.

model differ by group. These findings indicate that specific types of visibility (i.e., private or public) moderated the association between narcissism variables and reactions to negative events.

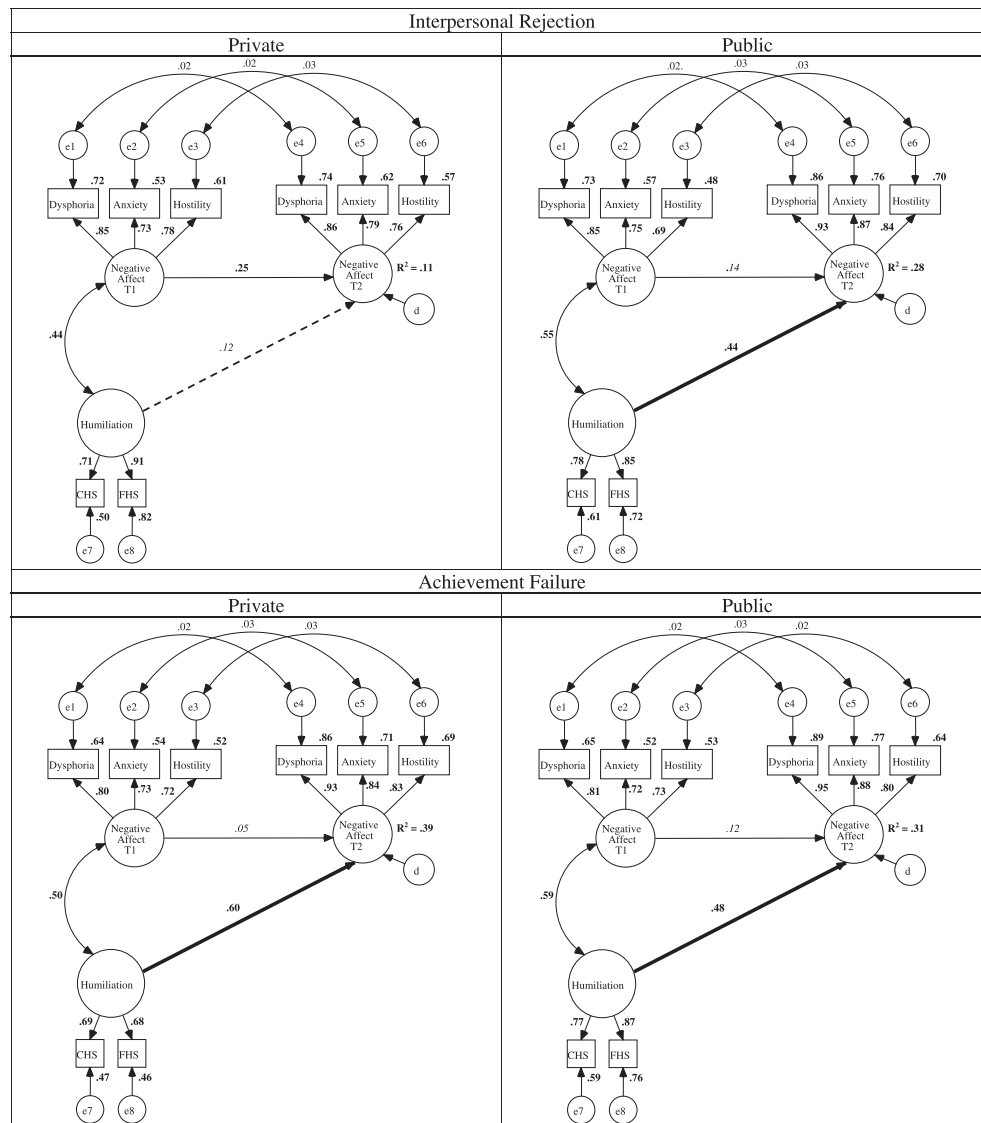
#### 4.5. Concern about humiliation and relative change in negative affect in response to negative events

A model including concern about humiliation (a latent variable defined by the fear of humiliation and concerns about humiliation which served as its indicators) and its effect on relative change in negative affect was specified and estimated simultaneously for all four groups using SEM multiple-group analysis with constraining the factor loadings for negative affect to the same values across groups and across time (i.e. the respective T1 and T2 indicators constrained to the same values) as well as constraining the correlated residuals to the same values across groups, with the path estimate of concern about humiliation on negative affect left free to be estimated. This model was found to fit the observed data well:  $\chi^2(81) = 106.65$ ,  $p < .03$ ,  $\chi^2/df = 1.32$ , NNFI = .99, CFI = 1.0, RMSEA = .02 (C.I. .001, .03), AIC = 296.65.

As shown in Fig. 2, concern about humiliation significantly predicted increased negative affect among participants exposed to the public interpersonal rejection condition ( $\beta = .44$ ,  $t = 3.29$ ,

$p < .001$ ) but this association was not observed for the private interpersonal rejection condition ( $\beta = .12$ ,  $t = .99$ , ns). For achievement failure, concern about humiliation was a significant predictor of increased negative affect following exposure to the public condition ( $\beta = .48$ ,  $t = 3.89$ ,  $p < .001$ ) or the private condition ( $\beta = .60$ ,  $t = 3.94$ ,  $p < .001$ ).

We compared this model with a model that constrained the path estimate of concern about humiliation on negative affect for the public and private conditions to the same values across groups in addition to the constraints of the previous model (i.e., constraining the factor loadings for negative affect to the same values across groups and across time as well as constraining the correlated residuals to the same values across groups). This model obtained the following fit indices:  $\chi^2(85) = 150.47$ ,  $p < .0001$ ,  $\chi^2/df = 1.77$ , NNFI = .99, CFI = .99, RMSEA = .04 (C.I. .03, .05), AIC = 332.47. The higher AIC of this model indicate it is a less parsimonious model. The fit of the constrained model is worse than that for the corresponding unconstrained model ( $\Delta\chi^2[df = 4] = 43.82$ ,  $p < .0001$  and  $\Delta AIC = 35.82$ ), thus we conclude that the direct effect model differ by group. These findings indicate that visibility (i.e., public vs. private) moderated the effect of concern about humiliation on negative reactions to negative interpersonal events.



**Fig. 2.** The effect of concern about humiliation on relative change in negative affect under the four study conditions. *Note.* Rectangles indicate measured variables and large circles represent latent constructs. Small circles reflect residuals (e) or disturbances (d); bold numbers above or near endogenous variables represent the amount of variance explained ( $R^2$ ). Bidirectional arrows depict correlations and unidirectional arrows depict hypothesized directional links. Standardized maximum likelihood parameters are used. Bold estimates are statistically significant.

#### 4.6. The role of concern about humiliation in the affective responses of narcissists to negative events

A model including the direct effect of *grandiose narcissism* on relative change in negative affect and its indirect effect on relative change in negative affect through its association with concern about humiliation was specified and estimated simultaneously for the *public* interpersonal rejection and achievement failure conditions using SEM multiple-group analysis constraining the factor loadings for negative affect to the same values across groups and across time (i.e. the respective T1 and T2 indicators constrained to the same values) as well as constraining the correlated residuals to the same values across groups, with the path estimate of grandiose narcissism and of concern about humiliation on negative affect were left free to be estimated. This model (see Fig. 3) was found to fit the observed data well:  $\chi^2(49) = 81.69$ ,  $p < .002$ ,  $\chi^2/df = 1.67$ , NNFI = .99, CFI = 1.0, RMSEA = .04 (C.I. .02, .06), AIC = 199.69.

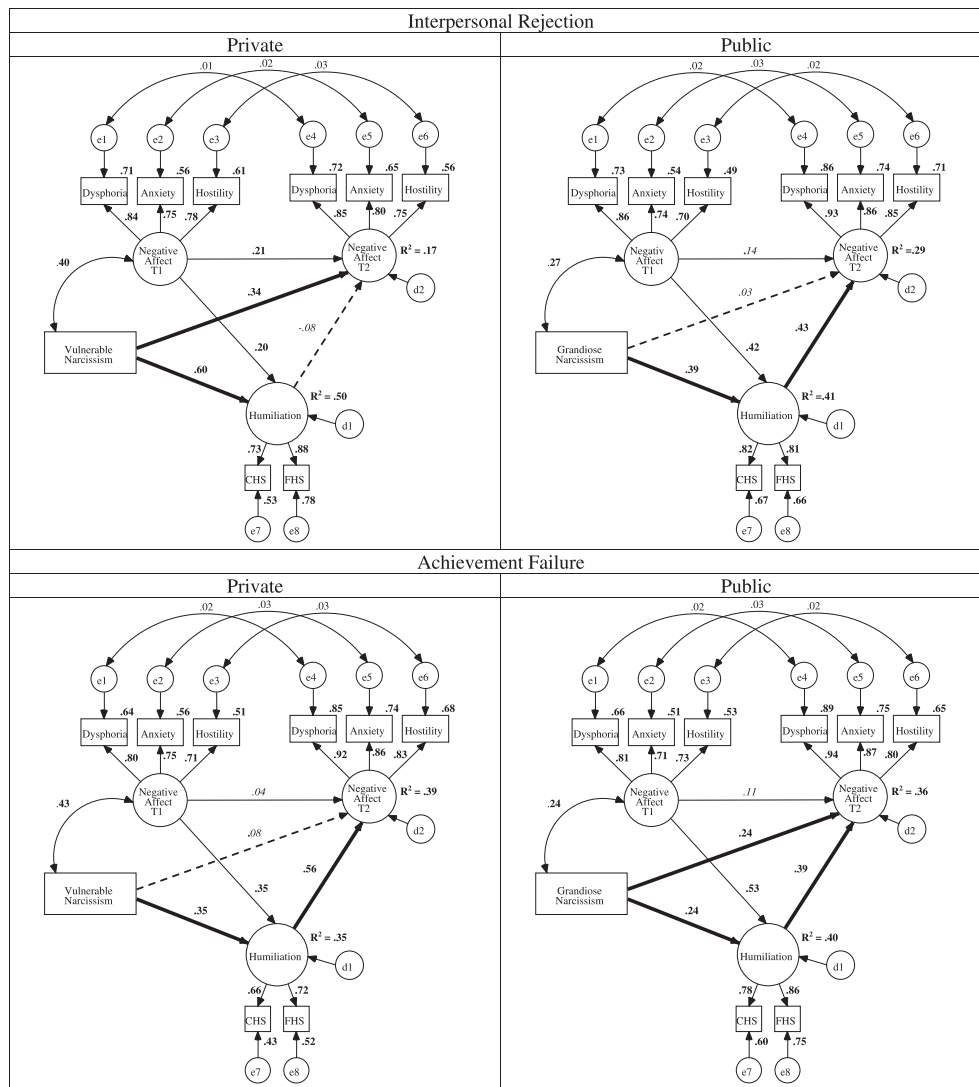
A similar model including the direct effect of *vulnerable narcissism* on relative change in negative affect and its indirect effect

though its association with concern about humiliation was specified and estimated simultaneously for the *private* interpersonal and achievement threat groups using SEM multiple-group analysis. This model (see Fig. 3) was found to fit the observed data well:  $\chi^2(49) = 55.14$ ,  $p > .25$ ,  $\chi^2/df = 1.13$ , NNFI = .99, CFI = 1.0, RMSEA = .02 (C.I. .000, .04), AIC = 173.14.

As shown in Fig. 2, the association between concern about humiliation and relative change in negative affect did not emerge following exposure to the *private* interpersonal rejection condition. Fig. 3 shows how vulnerable narcissism was significantly associated with concern about humiliation ( $\beta = .60$ ,  $t = 7.56$ ,  $p < .001$ ) and was still associated with increased negative affect ( $\beta = .34$ ,  $t = 2.74$ ,  $p < .01$ ).

As shown in Fig. 3, grandiose narcissism was significantly associated with concern about humiliation following exposure to the public interpersonal rejection condition ( $\beta = .39$ ,  $t = 4.64$ ,  $p < .001$ ). Concern about humiliation, in turn, significantly predicted increased negative affect ( $\beta = .43$ ,  $t = 3.23$ ,  $p < .001$ ). It is important to note that the significant association between grandiose





**Fig. 3.** The direct effects of grandiose narcissism (for the public interpersonal and achievement threats) and vulnerable narcissism (for the private interpersonal and achievement threats) on relative change in negative affect and their indirect effects through their associations with concern about humiliation. *Note.* Rectangles indicate measured variables and large circles represent latent constructs. Small circles reflect residuals (e) or disturbances (d); bold numbers above or near endogenous variables represent the amount of variance explained ( $R^2$ ). Bidirectional arrows depict correlations and unidirectional arrows depict hypothesized directional links. Standardized maximum likelihood parameters are used. Bold estimates are statistically significant.

narcissism and negative affect became nonsignificant when concern about humiliation was accounted for in the model ( $\beta = .03$ ,  $t = .32$ ,  $ns$ ), whereas the indirect association between grandiose narcissism and negative affect through concern about humiliation was significant ( $z' = 2.69$ ,  $p < .01$ ) which indicates that concern about humiliation mediated this association.

Fig. 3 shows how vulnerable narcissism was associated with concern about humiliation in the private achievement failure condition ( $\beta = .35$ ,  $t = 3.17$ ,  $p < .01$ ). Concern about humiliation was, in turn, significantly associated with increased levels of negative affect ( $\beta = .56$ ,  $t = 3.35$ ,  $p < .001$ ). The association between vulnerable narcissism and increased negative affect that had been observed in previous analyses became nonsignificant when concern about humiliation was added to the model ( $\beta = .08$ ,  $t = .77$ ,  $ns$ ). The indirect effect linking vulnerable narcissism to increased negative affect through concern about humiliation was found to be significant ( $z' = 2.35$ ,  $p < .01$ ). Thus, concern about humiliation mediated this association.

As shown in Fig. 3, grandiose narcissism was associated with concern about humiliation for the public achievement failure con-

dition ( $\beta = .24$ ,  $t = 3.02$ ,  $p < .01$ ). Concern about humiliation was found to predict increased negative affect ( $\beta = .39$ ,  $t = 3.27$ ,  $p < .001$ ). Although the direct association between grandiose narcissism and negative affect remained significant despite the addition of concern about humiliation to the model ( $\beta = .24$ ,  $t = 3.11$ ,  $p < .01$ ), the indirect association between grandiose narcissism and negative affect, through concern about humiliation, was also found to be significant ( $z' = 2.28$ ,  $p < .05$ ). Thus, concern about humiliation, although significantly, only partially mediated this association.

#### 4.7. Narcissism and unforgiving motivations following negative events

The revenge and avoidance subscales were used as indicators of the unforgiving motivations latent variable in a model including the direct effects of grandiose narcissism on unforgiving motivations, and estimated simultaneously for the *private* interpersonal rejection and achievement failure conditions using SEM multiple-group analysis with all parameters left free to be estimated. This

model was not found to fit the observed data:  $\chi^2(2) = 10.28$ ,  $p < .001$ ,  $\chi^2/df = 5.20$ , RMSEA = .12 (C.I. .06, .20), AIC = 42.39.

A model including the direct effect of grandiose narcissism on unforgiving motivations was specified and estimated simultaneously for the public interpersonal rejection and achievement failure conditions using SEM multiple-group analysis with all parameters left free to be estimated. This model (see Fig. 4) was found to fit the observed data well:  $\chi^2(2) = 2.96$ ,  $p > .23$ ,  $\chi^2/df = 1.488$ , NNFI = 1.0, CFI = 1.0, RMSEA = .04 (C.I. .0000, .08), AIC = 34.96. As shown in Fig. 4, grandiose narcissism was associated with unforgiving motivations for both the public interpersonal rejection condition ( $\beta = .66$ ,  $t = 5.17$ ,  $p < .001$ ) and the public achievement failure condition ( $\beta = .48$ ,  $t = 4.21$ ,  $p < .001$ ).

#### 4.8. Concern about humiliation and unforgiving motivations

A model including the direct effect of concern about humiliation on unforgiving motivations was specified and estimated simultaneously for the public interpersonal and achievement threat groups using SEM multiple-group analysis with all parameters left free to be estimated. This model (see Fig. 4) was found to fit the observed data well:  $\chi^2(4) = .83$ ,  $p > .94$ ,  $\chi^2/df = .21$ , NNFI = 1.0, CFI = 1.0, RMSEA = .0001 (C.I. .0000, .03), AIC = 48.83.

As shown in Fig. 4, concern about humiliation significantly predicted unforgiving motivations following exposure to the public

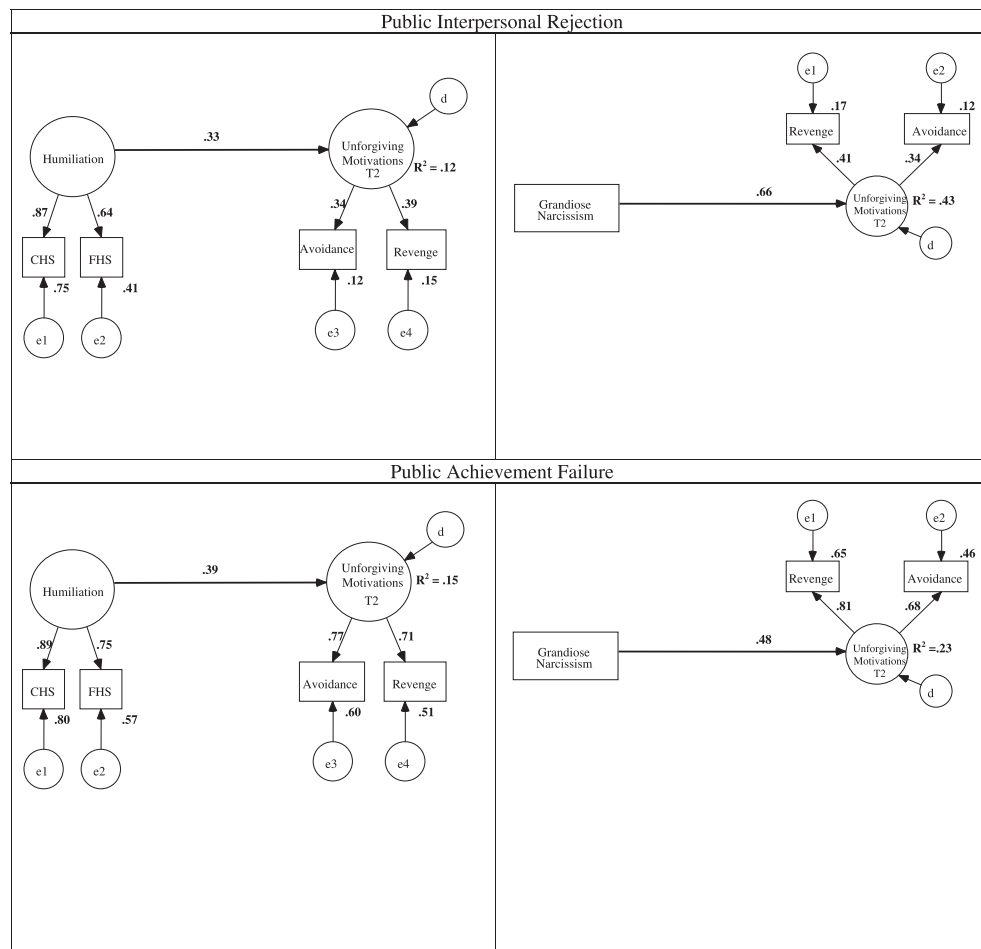
interpersonal rejection condition ( $\beta = .33$ ,  $t = 2.01$ ,  $p < .05$ ), as well as the achievement failure condition ( $\beta = .39$ ,  $t = 3.13$ ,  $p < .01$ ).

#### 4.9. The role of concern about humiliation in the unforgiving motivations of narcissists following negative events

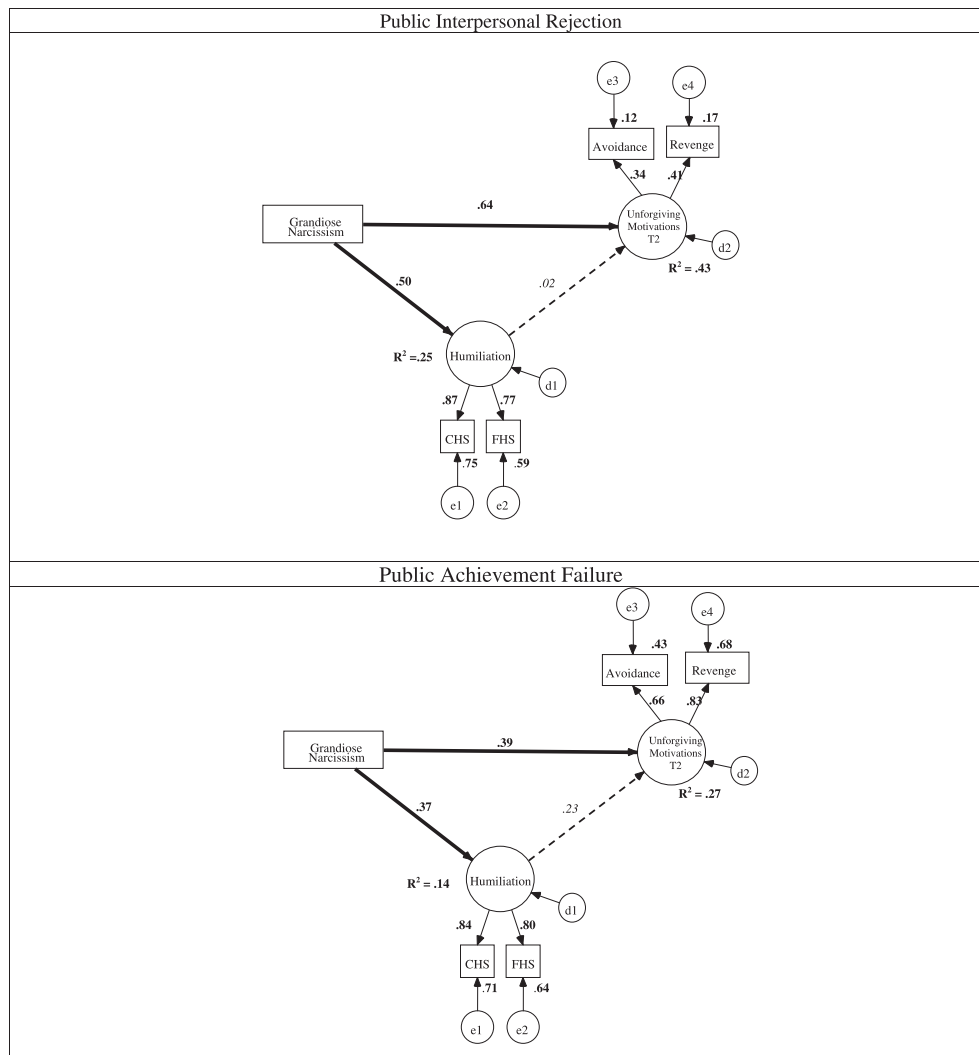
A model including the direct effect of grandiose narcissism on unforgiving motivations and its indirect effect on unforgiving motivations through its association with concern about humiliation was specified and estimated simultaneously for the public interpersonal rejection condition and the public achievement failure condition using SEM multiple-group analysis with all parameters left free to be estimated. This model (see Fig. 5) was found to fit the observed data well:  $\chi^2(7) = 3.26$ ,  $p > .86$ ,  $\chi^2/df = .47$ , NNFI = 1.0, CFI = 1.0, RMSEA = .000 (C.I. .000, .04), AIC = 70.12.

As shown in Fig. 5, grandiose narcissism was associated with unforgiving motivations for the public interpersonal rejection condition ( $\beta = .64$ ,  $t = 3.44$ ,  $p < .001$ ), beyond its association with concern about humiliation ( $\beta = .50$ ,  $t = 4.87$ ,  $p < .001$ ). Concern about humiliation did not remain a significant predictor of unforgiving motivations in this model ( $\beta = .02$ ,  $t = .12$ , *ns*).

As shown in Fig. 5, grandiose narcissism was associated with unforgiving motivations ( $\beta = .39$ ,  $t = 4.20$ ,  $p < .001$ ), beyond its association with concern about humiliation ( $\beta = .37$ ,  $t = 3.85$ ,  $p < .001$ ). Concern about humiliation, although decreased, remained



**Fig. 4.** The direct effect of grandiose narcissism on unforgiving motivations and the direct effect of concern about humiliation on unforgiving motivations in response to public interpersonal rejection and achievement failure threats. *Note.* Rectangles indicate measured variables and large circles represent latent constructs. Small circles reflect residuals (e) or disturbances (d); bold numbers above or near endogenous variables represent the amount of variance explained ( $R^2$ ). Bidirectional arrows depict correlations and unidirectional arrows depict hypothesized directional links. Standardized maximum likelihood parameters are used. Bold estimates are statistically significant.



**Fig. 5.** The direct effect of grandiose narcissism on unforgiving motivations and its indirect effects through its association with concern about humiliation for the public interpersonal rejection and achievement failure scenarios. *Note.* Rectangles indicate measured variables and large circles represent latent constructs. Small circles reflect residuals (e) or disturbances (d); bold numbers above or near endogenous variables represent the amount of variance explained ( $R^2$ ). Bidirectional arrows depict correlations and unidirectional arrows depict hypothesized directional links. Standardized maximum likelihood parameters are used. Bold estimates are statistically significant.

a significant predictor of unforgiving motivations in this model ( $\beta = .23$ ,  $t = 2.10$ ,  $p < .05$ ). These results indicate that grandiose narcissism accounted for the observed significant effect of concern about humiliation on unforgiving motivations following exposure to the public interpersonal rejection condition and affected unforgiving motivations both directly and indirectly through concerns about humiliation in response to exposure to the public achievement threat condition.

## 5. Discussion

The present study examined the links that grandiose and vulnerable forms of pathological narcissism have with the reactions of individuals to scenarios describing negative events (i.e., interpersonal rejection and achievement failure) occurring in either private or public settings. We assessed the responses of participants to these scenarios by determining the magnitude of the relative change in their negative affect and their reported willingness to forgive the transgressor in these scenarios. Our results suggest that grandiose narcissism is associated with higher levels of negative affect following negative events that occur in public settings,

whereas vulnerable narcissism is associated with more negative emotions following negative events that occur in private. These findings suggest that the visibility of negative events appears to influence how individuals with high levels of grandiose or vulnerable narcissism respond to these unpleasant experiences. Although grandiose and vulnerable narcissism share certain characteristics (Dickinson & Pincus, 2003), our findings are consistent with recent research suggesting that important differences exist between these forms of pathological narcissism (see Cain et al., 2008).

Public exposure may be especially important to individuals with high levels of grandiose narcissism because of their desire to be respected and admired by others. More specifically, grandiose narcissism may be associated with sensitivity to negative events that occur in public because of the implications these events may have for the social reputations of these individuals and the additional difficulties they may face in cultivating the respect and admiration they want so desperately. Similar events may be less threatening for individuals with high levels of grandiose narcissism when they occur in private because they can more easily attribute responsibility for these events to the negative attributes and shortcomings of others. In essence, private negative events may have less impact on those with high levels of grandiose narcissism

because their private nature minimizes the consequences of these events for their self-esteem regulation strategies (e.g., avoiding responsibility for failure).

Another reason public events may have such a strong impact on individuals with high levels of grandiose narcissism is that these individuals may be hypervigilant for cues concerning worthlessness due to their underlying feelings of inferiority (e.g., Kernberg, 1975; Kohut, 1966). Under normal conditions, individuals with high levels of normal narcissism have been shown to automatically and immediately inhibit (i.e., repress) their feelings of worthlessness that are activated by negative experiences (Horvath & Morf, 2009). For example, individuals with high levels of normal narcissism have been found to be resistant to repeated failures on intellectual tasks (Campbell, Goodie, & Foster, 2004) as well as social rejection (Rhodewalt & Eddings, 2002). However, this inhibition strategy may not be particularly effective for grandiose narcissists when the event occurs in a public setting because its public nature may prevent the grandiose narcissist from subsequently repressing their feelings of worthlessness that are activated by the event. This is the basic pattern that Baumeister and Cairns (1992) found for repressors who received negative feedback in public (they spent more time reading it) compared to those who received the feedback in private (they spent less time reading it). When negative events occur in public, grandiose narcissists may not be able to use some of the typical defensive strategies, such as repression or distortion of feedback (e.g., Campbell, Sedikides, Reeder, & Elliott, 2000), that generally allow them to maintain their tenuous feelings of self-worth.

Concern about humiliation was a significant predictor of increased negative affect in response to both interpersonal rejection and achievement failure in public settings, whereas it was a significant predictor for private achievement failure but not private interpersonal rejection. Humiliation may be especially important for the reactions of individuals with high levels of grandiose narcissism to public negative events. We found that concern about humiliation mediated the association between grandiose narcissism and negative affect following public negative events. These findings are consistent with clinical observations regarding narcissism and fear of humiliation which suggest that fear of humiliation is a central affect-laden fantasy of narcissists (Rothstein, 1984; Steiner, 1999). That is, narcissists appear to be extremely concerned about losing their sense of perfection and tend to interpret negative events as being humiliating (Rothstein, 1984). However, at least in the short-term, narcissists seem to have an ability to maintain positive self-beliefs in the face of unexpectedly low performance (Robins & Beer, 2001). This ability to resist negative feedback is not without its costs, however, and may result in aggression, externalization, and other cognitive distortions (e.g., Rhodewalt & Morf, 1998; Twenge & Campbell, 2003).

Are individuals with high levels of grandiose narcissism willing to forgive the transgressors in the scenarios we examined? It has been suggested that affective responses to transgressions occur along two dimensions reflecting righteous indignation (e.g., sadness, anger, contempt) and perceived attack (e.g., fear, worry; McCullough, Worthington, & Rachal, 1997). These affective responses prompt revenge and avoidance, respectively. After a transgression, narcissistically entitled individuals require more punishment of the transgression and compensation before they can forgive the offense (Exline et al., 2004). The results of the present study indicate that grandiose narcissism is associated with a lack of forgiveness after imagining public negative events. This suggests that it is not only the severity of the transgression that influences the willingness of individuals with high levels of grandiose narcissism to forgive. Rather, the level of exposure accompanying the event is also important such that individuals with high levels of grandiose narcissism are generally less willing to forgive

public transgressions. This extends previous work concerning narcissism and forgiveness (e.g., Emmons, 2000; Exline et al., 2004) by suggesting that the visibility of the transgression is important for determining the willingness of narcissistic individuals to forgive.

The unwillingness of narcissistic individuals to forgive may be further exacerbated by the fact that they are more easily offended (McCullough, Emmons et al., 2003; McCullough, Fincham et al., 2003). It seems that self-regulatory tactics that preserve feelings of superiority and esteem (Morf & Rhodewalt, 2001) are especially useful to narcissistic individuals when they are confronted with negative information or feedback that result in aggression toward the perceived transgressor (e.g., Bushman & Baumeister, 1998). It is interesting to note that unlike the negative emotional reactions observed for the public scenarios, concern about humiliation failed to mediate the association between grandiose narcissism and unwillingness to forgive. This suggests that concern about humiliation may have little to do with the lack of forgiveness that individuals with high levels of grandiose narcissism express toward those who transgress against them.

Individuals with high levels of vulnerable narcissism are less equipped to use overt self-enhancement strategies to regulate their self-esteem and, as a result, are often forced to rely on indirect strategies for maintaining their feelings of self-worth, such as trying to gain the approval and acceptance of others (e.g., Zeigler-Hill et al., 2008). This may provide at least a partial explanation as to why these individuals experience such intense anxiety in their relationships with others, report being hypervigilant to cues of separation, and experience tremendous distress following separation (e.g., Besser & Priel, 2009; Mikulincer, Kedem, & Paz, 1990). This heightened interpersonal sensitivity, which is similar in many ways to rejection sensitivity (Downey & Feldman, 1996), appears to be an important component of vulnerable narcissism (Besser & Priel, in press a; Cooper, 1998; Dickinson & Pincus, 2003; Gabbard, 1989; Gabbard, 1998; Gersten, 1991; Kraus & Reynolds, 2001; Wink, 1991). This interpersonal sensitivity may have implications for the self-esteem regulation of individuals with high levels of vulnerable narcissism because self-esteem and relational value are believed to be intimately connected (Leary, Tambor, Terdal, & Downs, 1995). This connection between self-esteem and perceived relational value may be especially strong for individuals who are highly sensitive to rejection (Berenson & Downey, 2006; Murray, Griffin, Rose, & Bellavia, 2003). In essence, individuals with high levels of vulnerable narcissism may have highly sensitive sociometers that are closely attuned to cues in their social environments concerning their relational value. At this point, it is not exactly clear why private events elicit such strong reactions from individuals with high levels of vulnerable narcissism, as compared to public events, but it is possible that the intimacy of these negative experiences may be especially damaging to the perceived relational value of these individuals (e.g., Besser & Priel, 2009, in press a).

Our results for vulnerable narcissism are largely consistent with those of previous studies suggesting that individuals with high levels of vulnerable narcissism are likely to experience interpersonal distress, report interpersonal problems concerning social avoidance, and possess attachment styles characterized by negative self-representations (i.e., fearful and preoccupied styles; Dickinson & Pincus, 2003). Similarly, other studies have shown vulnerable narcissism to be associated with outcomes such as vulnerability to negative events (Wink, 1991). This heightened vulnerability may explain why vulnerable narcissism was strongly associated with reactions to private negative events. Further research is clearly needed to gain a more complete and nuanced understanding of the reactions of individuals with high levels of vulnerable narcissism to negative events.

It should be noted that there are important limitations associated with the present study. The first limitation is that the study



relied exclusively on self-report measures. This leaves open the possibility that the responses provided by the participants may have been biased in some manner. That is, participants may have portrayed themselves more (or less) favorably than was warranted. For example, some participants may have denied narcissistic qualities that they actually possess or reported less negative emotional reactions to the imagined scenarios than they really experienced in an attempt to provide socially desirable responses. The second limitation is that the present study relied on scenarios describing negative events rather than laboratory simulations of these experiences or a daily diary approach. Future studies should extend the present findings by using complementary research designs. The third limitation is that the only potential mediator we examined was concern about humiliation. However, other self-conscious emotions (e.g., shame, guilt, or embarrassment) may also play an important role in the responses of narcissistic individuals to negative events. The fourth limitation concerns the generalizability of the present results beyond our Israeli community sample. Our concern about generalizability stems from the following issues: (1) the PNI is a relatively new instrument that has not been used outside of the United States and (2) there are cultural differences between Americans and Israelis such that Israelis tend to place greater emphasis on collectivistic ideals than is commonly observed among Americans (Oyserman, Coon, & Kemmelmeier, 2002). It is possible that the tendency for Israelis to value collectivism may have led them to be highly reactive to negative events that occurred either in public or private settings because of the importance they place on the impressions that others have of them. This collectivistic tendency among Israelis may also explain the relative ease with which uncompensated community samples are collected in Israel compared to other countries such as the United States. These concerns suggest that future research should attempt to replicate the present findings in a culture with less emphasis on collectivistic qualities.

## 6. Conclusion

The present study examined the associations between pathological forms of narcissism and reactions to negative events in both private and public settings. Grandiose narcissism was found to be associated with reactions to public negative events such that concerns about humiliation played an important role in emotional responses to these events. In contrast, vulnerable narcissism was associated with emotional reactions to private negative events. These results suggest that both forms of pathological narcissism are associated with emotional reactions to descriptions of negative events but that they differ with respect to the responses elicited by the level of exposure of these events (i.e., whether they occur in private or in public). This suggests that future studies concerning pathological narcissism may need to take into account and assess the “equivalence of stimuli” (Compas, 1987) because it should not be assumed that a particular event is experienced in the same way and has the same meaning (see e.g., Besser, Guez, & Priel, 2008; Besser & Priel, *in press b*) when it occurs in different contexts (i.e., private vs. public). Despite its limitations, we believe the present study supports a view of pathological narcissism as promoting maladaptive affect-regulation strategies in response to interpersonal rejection and achievement failure. Moreover, our findings indicate that both forms of pathological narcissism and concerns about humiliation may play vital roles in determining how individuals respond to negative events.

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## Appendix A

Scenarios for the interpersonal rejection and achievement failure conditions.

Visibility	
Private	Public
<i>Interpersonal rejection</i>	
Imagine that you and your romantic partner have gotten into a fight during a party with some of your friends. Your partner is so angry with you that he/she pulls you aside so that no one else can hear and tells you that he/she has been having an affair for the last few weeks because you have not been an adequate partner, and that he/she is going to leave you	Imagine that you and your romantic partner have gotten into a fight during a party with some of your friends. Your partner is so angry with you that he/she yells out to everyone that he/she has been having an affair for the last few weeks because you have not been an adequate partner and that he/she is going to leave you
<i>Achievement failure</i>	
Imagine that you are giving a class presentation to your professor and your fellow students. After you finish the presentation, your professor pulls you aside so that no one else can hear and tells you that your presentation was horrible and that you will receive a failing grade for it	Imagine that you are giving a class presentation to your professor and your fellow students. After you finish the presentation, your professor announces in front of the other students that your presentation was horrible and that you will receive a failing grade for it

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