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Are Normal Narcissists Psychologically Healthy?:

Self-Esteem Matters

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Abstract

Five studies established that normal narcissism is correlated with good psychological health. Specifically, normal narcissism is: (a) inversely related to daily sadness and dispositional depression, (b) inversely related to daily and dispositional loneliness, (c) positively related to daily and dispositional subjective well-being as well as couple well-being, (d) inversely related to daily anxiety, and (e) inversely related to dispositional neuroticism. More importantly, self-esteem fully accounted for the relation between normal narcissism and psychological health. Thus, normal narcissism is beneficial for psychological health only insofar as it is associated with high self-esteem. Explanations of the main and mediational findings in terms of response or social desirability biases (e.g., defensiveness, repression, impression management) were ruled out. Supplementary analysis showed that the links among normal narcissism, self-esteem, and psychological health were preponderantly linear.

Are Normal Narcissists Psychologically Healthy?:

Self-Esteem Matters

The subclinical narcissistic personality is currently attracting keen theoretical and empirical interest (Rhodewalt & Morf, in press; Sedikides, Campbell, Reeder, Elliot, & Gregg, 2002; Wallace & Baumeister, 2002). Conceptually, we define subclinical narcissism in terms of a self-centered, self-aggrandizing, dominant, and manipulative interpersonal orientation (Emmons, 1987; Paulhus, 1998; Paulhus & Williams, 2002). Operationally, we define subclinical narcissism as a multifaceted construct consisting of seven components: autonomy, entitlement, exhibitionism, exploitation, self-sufficiency, superiority, and vanity (Narcissistic Personality Inventory [NPI]; Raskin & Hall, 1979, 1981; Raskin & Terry, 1988). The NPI is a self-report inventory, is based on the definition of narcissism provided by the *Diagnostic and Statistical Manual of Mental Disorders* ([DSM-III]; American Psychiatric Association, 1980), and measures narcissism on a continuum or as a personality trait (Emmons, 1987). Thus, it is important to clarify that this research does not address pathological narcissism and, instead, focuses exclusively on persons with relatively high degrees of narcissism (high or normal narcissists) or with relatively high scores on the NPI.

A Brief Review of Theory and Research on Normal Narcissism

Two complementary views of normal narcissism have been offered by Paulhus (2001). The first is based on the Big Five framework. Specifically, the structure of interpersonal traits is represented in terms of two dimensions: agency and communion (Leary, 1957; Wiggins, 1979). The vector that diagonally slices the two circumplex axes of high-agency and low-communion is regarded as the locus of normal narcissism (Wiggins & Pincus, 1994). Subsequent work has confirmed the view that normal narcissists are relatively high on agency and low on communion (Campbell, Rudich, & Sedikides, 2002; Paulhus & John, 1998). Costa and McCrae (1995) related the high-agency and low-communion axes to the Big Five traits of extraversion and agreeableness, arguing that the former were slight rotations of the latter. Based on this insight, Paulhus (2001) labeled high narcissists "disagreeable extraverts." The second view of normal narcissism is based on attachment theory. According to the working model hypothesis (Griffin & Bartholomew, 1994),

attachment styles are structured around one's perception of self (positive vs. negative) and others (positive vs. negative). High narcissists have a positive perception of self but a negative perception of others, resembling the attachment style of dismissives.

There is now compelling empirical support for the claim that normal narcissists love the self abundantly, far more than they love others. To begin with, normal narcissism is inversely related to agreeableness, empathy, gratitude, affiliation and need for intimacy, whereas it is positively related to competitiveness, exploitativeness, machiavellianism, anger, hostility, and cynical mistrust of others (Morf & Rhodewalt, 2001; Rhodewalt, 2001; Sedikides et al., 2002). Also, compared to low narcissists, high narcissists relish direct competition against others (Morf, Weir, & Davidov, 2000). Furthermore, high narcissists glorify the self, conveniently disregarding the possibility that their self-promoting tactics constitute a slight against others. For example, Gabriel, Critelli, and Ee (1994) asked participants to rate their own intelligence and physical attractiveness in relation to the average college student. High narcissists overestimated their intelligence and attractiveness, as evidenced both by the results of an intelligence test and by judges' ratings of participants' attractiveness. Similarly, John and Robins (1994) examined participants' evaluations of their positive contribution to a group discussion task. High narcissists rated their own contribution as more impactful than that of other discussants, a judgment contradicted by observers and peers. In addition, normal narcissists are interpersonally dismissive and abrasive. For example, Kernis and Sun (1994) gave participants bogus interpersonal feedback. When the feedback was unfavorable, high narcissists regarded the evaluator as incompetent and unlikable, an opinion that they are prepared to convey even in a face-to-face interaction (Morf & Rhodewalt, 1993; Smalley & Stake, 1996). Moreover, not only do high narcissists derogate unfavorable evaluators, they also behave aggressively toward them (Bushman & Baumeister, 1998; Stucke & Sporer, 2002).

High narcissists manifest entitlement behavior at the direct expense of even close others. Research on the self-serving bias (SSB) is a case in point. The SSB refers to the tendency to take credit for success but disavow blame for failure. The SSB is a robust phenomenon (Campbell & Sedikides, 1999; Sedikides & Gregg, 2003), but a rare exception

occurs when participants collaborate on an interdependent (i.e., joint outcomes) task with a close other. Here, no SSB normally emerges (Sedikides, Campbell, Reeder, & Elliot, 1998, 2002). However, normal narcissists display the SSB even when their partner is a close other (Sedikides et al., 2002). In addition, they derogate close others who outperform them (Morf & Rhodewalt, 1993). It would appear that high narcissists self-enhance even at an interpersonal cost. In fact, they deliberately use close others for self-enhancement purposes, a tactic labelled "The Others Exist for Me" illusion by Sedikides et al. (2002). No surprise then that high narcissists are attracted to partners who express admiration while being turned off by partners who offer intimacy (Campbell, 1999), preferring a game-playing ("ludic") love style (Campbell, Foster, & Finkel, 2002), and showing low commitment to dating relationships (Campbell & Foster, 2002).

<center>Normal Narcissism and Psychological Health</center>

Does the high agency/low communion of normal narcissism have implications for psychological functioning? Does this excessive self-aggrandizement and interpersonal abrasiveness reflect psychological maladjustment? Specifically, are high narcissists psychologically healthy and, if so, why? The objective of the present article is to address this last question. We are exclusively concerned with self-reported psychological health, which we define and operationalize in terms of (a) low levels of depression (or sadness), anxiety, loneliness, and neuroticism, and (b) high levels of subjective and couple well-being (Gramzow, Sedikides, Insko, & Panter, 2000; John, 1990).

Theory and research in personality and social psychology have duly entertained the hypothesis that high narcissists are psychologically unhealthy. Indeed, normal narcissists are empirically portrayed as persons in psychological turmoil: They report emotional highs and lows (Rhodewalt & Shimoda, 2002), their self-esteem is unstable and highly dependent on their social interactions (Rhodewalt, in press; Rhodewalt, Madrian, & Cheney, 1998; see also Kernis, 2001), they are jealous and fearful of closeness (Rhodewalt & Shimoda, 2002), they are distrusting, suspicious and controlling of others (Davidov & Morf, 2004), react angrily (Rhodewalt & Morf, 1998) and aggressively (Bushman & Baumeister, 1998; Stucke & Sporer, 2002) to threatening feedback, and may have implicit self-conceptions of which they

are ashamed (Tracy & Robins, 2003). As such, it is not an exaggeration to assert that the hypothesis that high narcissists are psychologically unhealthy forms the current subtext of mainstream personality and social psychological thinking.

We wish to challenge this hypothesis. To begin with, the data have not been kind to it. First, there is no evidence that agency per se (a defining dimension of normal narcissism) is linked to poor psychological health. On the contrary, agency is associated with reduced anxiety and depression (Holahan & Spence, 1980), as well as with higher positive affect, lower negative affect, and higher life satisfaction (Saragovi, Aube, Koestner, & Zuroff, 2002). In a similar vein, there is no clear evidence that communion is positively associated with psychological health. Communion may be related to positive affect (Saragovi et al., 2002), but it is also related to distress (Aube, Fichman, Saltaris, & Koestner, 2001).

Perhaps it is extreme levels of agency that are associated with poor psychological health (Bakan, 1966; Helgeson, 1994). After all, the devaluation of close relationships on the part of high narcissists ought to have implications for psychological health. This assertion is backed by evidence that involvement in close and secure relationships is linked with psychological health, specifically (a) the relative absence of anxiety, sadness, depression (House, Landis, & Umberson, 1988; Mickelson, Kessler, & Shaver, 1997) and loneliness (Marangoni & Ickes, 1989), and (b) the relative presence of subjective well-being (Diener, 1984). Once again, however, the data discredit the hypothesis: High narcissists report relatively good psychological health. In particular, normal narcissism is positively related to subjective well-being (Rose, 2002), is inversely related to anxiety (Watson & Biderman, 1993) and depression (Watson & Biderman, 1993; Wink, 1992), and is unrelated to loneliness (Joubert, 1986).

Normal Narcissism and Psychological Health: The Role of Self-Esteem

Why, then, do normal narcissists report good (i.e., high self-reported) psychological health? We located a possible reason in a key component of normal narcissism: level of self-esteem (hereafter self-esteem). This construct reflects the value that one places on the self (Rosenberg, 1965). Self-esteem has been found to be consistently and positively related to normal narcissism (Campbell et al., 2002; Emmons, 1984, 1987; Kernis & Sun, 1994; Morf

& Rhodewalt, 1993; Raskin, Novacek, & Hogan, 1991; Raskin & Terry, 1988; Rhodewalt & Morf, 1995, 1998; Rhodewalt et al., 1998). This strong and persistent relation led Baumeister and Vohs (2001) to characterize normal narcissism as an addiction to self-esteem. Importantly, self-esteem is also associated with psychological health: It is inversely linked to anxiety (Pyszczynski & Greenberg, 1987; Tarlow & Haaga, 1996), depression (Gjerde, Block, & Block, 1988; Tennen & Herzberger, 1987) and loneliness (Jones, Freemon, & Goswick, 1981; Leary & Baumeister, 2000), and it is positively linked to subjective well-being (Baumeister, Campbell, Krueger, & Vohs, 2003; DeNeve & Cooper, 1998).

Consequently, we hypothesized that a critical reason for the link between normal narcissism and psychological health is self-esteem. Stated more precisely, our hypothesis is that self-esteem mediates the relation between normal narcissism and psychological health. Self-esteem is a crucial component of normal narcissism—a component that is, at least in part, responsible for the relation between normal narcissism and good psychological health. We are concerned with the mediational role of both global trait self-esteem (Rosenberg, 1965; Pliner, Chaiken, & Flett, 1990) and domain-specific trait self-esteem. For theoretically-relevant reasons, we also considered two esteem domains: self-competence and self-liking (Tafarodi & Milne, 2002; Tafarodi & Swann, 1995). It is plausible, for example, that the self-esteem of normal narcissists is based on self-competence (i.e., derived from agency) rather than self-liking (i.e., derived from communion) and, as such, self-competence esteem would be a more potent mediator of the association between normal narcissism and psychological health than would self-liking esteem.

We wish to note that a recent study by Rose (2002) also addressed the role of self-esteem in narcissism's predictive utility of psychological outcomes. Our investigation, however, differs from Rose's study in several important ways. First, the current investigation is concerned with normal narcissism, whereas Rose's study was concerned with the distinction between overt and covert narcissism (Cooper & Ronningstam, 1992; Wink, 1991). Second, the current investigation addresses whether self-esteem mediates the relation between normal narcissism and multiple indicators of daily and dispositional psychological health, whereas Rose's study addressed whether self-esteem mediates the relation between

narcissism and a one-time measure of dispositional well-being. Third, the current investigation examined multiple and theory-guided indicators of self-esteem, thereby enabling several nuances of the hypothesized mediational link to be tested (Study 5); Rose's study, in contrast, only employed two near redundant indicators of self-esteem, the Rosenberg Self-Esteem Inventory (Rosenberg, 1965) and the Single-item Self-Esteem Scale (Robins, Hendin, & Trzesniewski, 2001). Finally, the current investigation addressed whether the self-esteem mediated relation between normal narcissism and psychological health is accounted for by several response biases (i.e., defensiveness, repression, impression management); Rose's investigation did not rule out such rival hypotheses.

We conducted five studies. In Study 1, participants completed one-time measures of normal narcissism, self-esteem, and psychological health (i.e., depression, loneliness, subjective well-being). In Study 2, participants completed one-time measures of normal narcissism and self-esteem, and subsequently recorded daily their psychological health (i.e., sadness, loneliness, subjective well-being, anxiety) for five consecutive days. In Study 3, married couples completed one-time measures of normal narcissism, self-esteem, and psychological health (i.e., subjective well-being, couple well-being). In Study 4, we examined whether response biases (i.e., defensiveness and repression) accounts for the self-esteem mediated relation between normal narcissism and psychological health (i.e., depression, loneliness, subjective well-being). Finally, in Study 5, we examined whether another response bias (i.e., impression management) accounts for the esteem-mediated relation between normal narcissism and psychological health (i.e., depression, loneliness, subjective well-being, anxiety, neuroticism). In this study, we used four measures of self-esteem.

Study 1

Method

Participants and Procedure

Participants were 149 (107 women, 42 men) University of North Carolina at Chapel Hill (UNC-CH) students fulfilling an introductory psychology course option. Participants

were tested in groups of 8-15. They completed, in random order, measures of normal narcissism and self-esteem. Next, they completed, also in random order, two measures of depression, three (later condensed to two) measures of loneliness, and two measures of subjective well-being. Debriefing followed.

Measures

Normal narcissism. Participants completed the 40-item NPI. Its scores range from 0-40, with higher scores reflecting higher narcissism. The NPI exhibits adequate reliability and validity (Raskin & Terry, 1988). In this study, scores ranged from 2-35 (M = 15.8); α = .82.

Self-esteem. Participants completed the 10-item Rosenberg Self-Esteem Inventory (RSI; Rosenberg, 1965), a measure of global trait self-esteem. RSI scores range from 10-90, with higher scores indicating higher self-esteem. The RSI has adequate reliability and validity (Fleming & Courtney, 1984). In this study, scores ranged from 28-90 (M = 72.11); α = .88.

Depression. Participants completed two depression scales. One was the Center for Epidemiological Studies Depression Scale (CES-D), a reliable and valid instrument (Radloff, 1977). The CES-D assesses depression within a nonclinical population by measuring mostly affective symptoms. The scale consists of 20 items with scores ranging from 0-60. Higher scores indicate more severe depression. In this study, scores ranged from 0-45 (M = 16.01); α = .91.

The second measure was the Beck Depression Inventory (BDI; Beck, 1967). This scale also has high reliability and validity (Steer, Beck, & Garrison, 1986), and assesses clinical levels of depression by measuring affective, behavioral, physiological, and cognitive symptoms. The scale consists of 21 items, with scores ranging from 0-63. Scores above 20 reflect severe depression, whereas scores between 14-20 reflect moderate depression. In this study, scores ranged from 0-33 (M = 7.8); α = .88.

Loneliness. Participants completed three measures of loneliness. The first was the UCLA Loneliness Scale (UCLS-LS), Version 3, a scale manifesting adequate reliability and validity (Russell & Cutrona, 1988). The UCLA-LS consists of 20 items and assesses loneliness that results from discrepancies between achieved and desired social contact. Scores

range from 20-80, with higher scores reflecting more loneliness. In this study, scores ranged from 21-61 (M = 41.3); α = .92.

The other two loneliness measures were the Emotional Loneliness Scale (ELS) and Social Loneliness Scale (SLS) (Wittenberg, 1986), both demonstrating adequate reliability and validity (Russell, Cutrona, Rose, & Yurko, 1984). The ELS assesses loneliness that results from the absence of a satisfying, romantic relationship. In contrast, the SLS assesses loneliness that results from the absence of satisfying, non-romantic relationships. The ELS and SLS consist of five items each, with scores ranging from 5-25. Higher scores indicate higher levels of emotional or social loneliness. The two measures were correlated, r = .63, p < .001. Thus, we combined them to form a single index, the Emotional and Social Loneliness Scale (ESLS). Supplementary data analyses on single scales produced results identical to the reported ones. Scores on the ESLS ranged from 10-38 (M = 21.3); α = .79.

Subjective well-being. Participants completed two reliable and valid subjective well-being scales, the Satisfaction with Life Scale (SWLS: Diener, Emmons, Larsen, & Griffin, 1985) and the Affect Balance Scale (ABS: Bradburn, 1969). The 5-item (range: 5-35) SWLS assesses global life satisfaction, with higher scores indicating greater life satisfaction. In this study, scores ranged from 5-35 (M = 25.1); α = .88. The 10-item (range: 0-10) ABS assesses the degree of difference in positive and negative emotions experienced. Higher scores indicate more positive affect. In this study, scores ranged from 1-10 (M = 6.4); α = .49. Note that, although the alpha for the ABS was low, the results for the two subjective well-being scale were very similar, as discussed below.

Results and Discussion

We hypothesized that self-esteem mediates the relation between normal narcissism and psychological health. In testing for mediation, we followed Baron and Kenny's (1986) guidelines. First, we regressed self-esteem on normal narcissism. This relation was significant, β = .34, p < .001, a pattern consistent with past research (Campbell et al., 2002; Emmons, 1987; Rhodewalt et al., 1998). Second, we regressed each psychological health index on normal narcissism. Normal narcissism predicted psychological health. With regard to depression, normal narcissism was inversely related both to CES-D, β = -.18, p < .04, and

(marginally) BDI, $\beta = -.13$, $p < .10$. These findings replicate past research (Watson & Biderman, 1993; Wink, 1992). In respect to loneliness, normal narcissism was inversely related both to UCLA-LS and ESLS, $\beta_s = -.30$ and $-.29$, $p_s < .001$. These findings contradict the single available study on the topic (Joubert, 1986), which reported a non-significant relation between normal narcissism and loneliness. In reference to subjective well-being, normal narcissism was positively related both to SWLS and ABS, $\beta_s = .30$ and $.24$, $p_s < .01$. This is the first empirical demonstration of a relation between normal narcissism and subjective well-being.

Parenthetically, we also regressed each psychological health index on self-esteem. With respect to depression, self-esteem was inversely related both to CES-D and BDI, $\beta_s = -.58$ and $-.55$, $p_s < .001$. With respect to loneliness, self-esteem was inversely related both to UCLA-LS and ESLS, $\beta_s = -.51$ and $-.40$, $p_s < .001$. With respect to subjective well-being, self-esteem was positively related both to SWLS and ABS, $\beta_s = .59$ and $.39$, $p_s < .001$. Consistent with past research (Diener, 1984; Jones et al., 1981; Tennen & Herzberger, 1987), self-esteem predicted psychological health.

The third mediational step was to regress each psychological health index on normal narcissism and self-esteem. If self-esteem mediates the relation between normal narcissism and emotional distress, this relation will decrease when self-esteem is entered into the model. Also, critical mediational evidence would be provided by a significant indirect (i.e., through self-esteem) effect[1] of normal narcissism on psychological health.

Self-esteem completely mediated the effect of normal narcissism on depression. When self-esteem was included in the model (CES-D: $\beta = -.55$, BDI: $\beta = -.61$, $p_s < .001$), normal narcissism was unrelated both to CES-D, $\beta = -.01$, $p < .87$, and to BDI, $\beta = .07$, $p < .31$. The indirect effects of normal narcissism on CES-D and BDI were significant, $z_s = 3.81$ and 3.92, $p_s < .01$.

Self-esteem partially mediated the effect of normal narcissism on loneliness. When self-esteem was included in the model (UCLA-LS: $\beta = -.46$, ESLS: $\beta = -.34$, $p_s < .001$), the independent effect of normal narcissism on loneliness decreased, although normal narcissism was marginally related to UCLA-LS, $\beta = -.14$, $p < .07$, and was still significantly related to

ESLS, $\beta = -.17$, $p < .04$. Nevertheless, the indirect effects of normal narcissism on UCLA-LS and ESLS were significant, $z_s = 3.60$ and 3.09, $p_s < .01$. Normal narcissism had both a direct and an indirect effect on loneliness.

In addition, self-esteem mediated completely the effect of normal narcissism on subjective well-being. When self-esteem was entered in the model (SWLS: $\beta = .55$, ABS: $\beta = .35$, $p_s < .001$), normal narcissism was unrelated both to SWLS, $\beta = .11$, $p < .12$, and to ABS, $\beta = .12$, $p < .16$. The indirect effects of normal narcissism on SWLS and ABS were significant, $z_s = 3.85$ and 3.15, $p_s < .01$.

In summary, the evidence is consistent with the contention that self-esteem mediates the relation between normal narcissism and psychological health. It is the self-esteem component of normal narcissism that accounts for its positive relations with the psychological health outcomes.

Study 2

In Study 2, we adopted a time-lagged design: We measured normal narcissism and self-esteem in Time 1, while assessing psychological health at several subsequent time intervals. We wanted to know whether normal narcissism predicts future (rather than concurrent) psychological health, and whether this link is mediated by self-esteem. Additionally, we added anxiety to the list of psychological health indices (Gramzow et al., 2000), thus broadening the scope of our investigation. Furthermore, we operationalized psychological health in an alternative way, in terms of daily reports over a 5-day period.

Method

Participants and Procedure

Participants were 81 (60 women, 21 men) UNC-CH introductory psychology volunteers. They began completing the measures (see below) on Wednesday and finished on Sunday of the same week. Instructions emphasized the importance of daily completion of the measures. Two days into the study, participants met with the experimenter to return the completed measures. Again, they were instructed to complete the measures daily, and they confirmed that so far they had done so. Participants met for a final time with the experimenter

the following week to submit the remaining measures and be debriefed. At that meeting, participant also confirmed that they had completed the measures daily.

Measures

Participants completed the NPI (*range* = 3-29; *M* = 16.06; α = .80) and RSI (*range* = 44-89; *M* = 73.07; α = .82), embedded in a packet of unrelated questionnaires. Next, participants were asked to complete a questionnaire at the end of each day for five consecutive days. This questionnaire contained 14 randomly ordered emotion adjectives (bounded by the endpoints 1 = *not at all* and 9 = *very much*) that assessed daily level of sadness, loneliness, subjective well-being, and anxiety. We averaged the daily measures to form four psychological health indices. We computed an alpha for each index by collapsing the ratings for each emotional adjective across days and then averaging the collapsed ratings.

We assessed sadness by asking participants to express each day the degree to which they felt sad, gloomy, depressed, and blue. Scores ranged from 4.0-9.0 (*M* = 7.1); α = .93. We assessed loneliness by asking participants to rate each day the degree to which they felt alone, left-out, lonely, and isolated. Scores ranged from 3.4-9.0 (*M* = 7.2); α = .94. We measured subjective well-being by asking participants to indicate each day the extent to which they were delighted, happy, and joyful. Scores ranged from 2-7 (*M* = 6.6); α = .91. Finally, we measured anxiety by asking participants to rate each day the extent to which they felt frightened, nervous, and worried. Scores ranged from 2-9 (*M* = 6.9); α = .87.

Results and Discussion

As in Study 1, we tested the hypothesis that self-esteem mediates the relation between normal narcissism and psychological health. We began by regressing self-esteem on normal narcissism. This relation was significant, β = .35, *p* < .01, a pattern that replicates Study 1. Next, we regressed each psychological health index on normal narcissism. Normal narcissism was inversely related to daily sadness (β = -.24, *p* < .04), unrelated to daily loneliness (β = -.13, *p* < .25), positively (albeit marginally) related to daily subjective well-being (β = .19, *p* < .10), and inversely (albeit marginally) related to daily anxiety (β = -.19, *p* < .10). As in Study 1, normal narcissism predicted psychological health.

We also regressed each psychological health index on self-esteem. Replicating Study 1, self-esteem emerged as a predictor of psychological health. Self-esteem was inversely related to daily sadness ($\beta = -.41$, $p < .001$) and daily loneliness ($\beta = -.45$, $p < .001$), positively related to daily subjective well-being ($\beta = .40$, $p < .001$), and inversely related to daily anxiety ($\beta = -.37$, $p < .01$).

Subsequently, we assessed through simultaneous regression analyses whether the independent effects of normal narcissism on psychological health decreased when self-esteem was entered into the model. We also calculated significance tests for the indirect (via self-esteem) effects of normal narcissism on psychological health.

Self-esteem completely mediated the effect of normal narcissism on daily sadness: When self-esteem was entered in the model ($\beta = -.38$, $p < .01$), normal narcissism was unrelated to daily sadness, $\beta = -.11$, $p < .34$. The indirect effect of normal narcissism on sadness was significant, $z = 2.45$, $p < .05$. Also, following inclusion of self-esteem in the model ($\beta = -.47$, $p < .001$), the relation between normal arcissism and daily loneliness was weakened, $\beta = .04$, $p < .74$. Importantly, the indirect effect of normal narcissism on loneliness was significant, $z = 2.69$, $p < .01$. Furthermore, self-esteem completely mediated the effect of normal narcissism on daily subjective well-being: When self-esteem was entered in the model ($\beta = .38$, $p < .01$), normal narcissism was unrelated to daily subjective well-being, $\beta = .05$, $p < .66$. The indirect effect of normal narcissism on daily subjective well-being was significant, $z = 2.46$, $p < .05$. Finally, self-esteem completely mediated the effect of normal narcissism on daily anxiety: When self-esteem was entered in the model ($\beta = -.35$, $p < .01$), normal narcissism was unrelated to daily anxiety, $\beta = -.06$, $p < .57$. The indirect effect of normal narcissism on daily anxiety was significant, $z = 2.34$, $p < .05$.

Replicating Study 1, the results support the contention that self-esteem mediates the link between normal narcissism and psychological health.[2] Moreover, our time-lagged design allows us to infer that normal narcissism predicts subsequent psychological health, and that this relation is mediated by self-esteem.

Study 3

The objective of Study 3 was to further enlarge the scope of our investigation. First,

Study 3 sought to generalize the findings of the previous studies to a community sample. Second, and more importantly, Study 3 used not only subjective but also couple well-being as an indicator of psychological health. Couple, and in particular marital, well-being is an important correlate of subjective well-being (Argyle, 1987; Campbell, Sedikides, & Bosson, 1994; Campbell, Converse, & Rodgers, 1976; Myers & Diener, 1995). Specifically, marriage quality is a potent predictor of subjective well-being, accounting for approximately 50% of the variance (Russell & Wells, 1994). This relation is observed across cultures, as it has been found to be statistically significant in 16 out of 17 countries (Stack & Eshleman, 1998). Additionally, problems in marital or close relationships are linked to negative emotions (Kitson & Morgan, 1990) and depression (Berscheid & Reis, 1998).

Although high narcissists prefer a ludic love style and manifest low commitment in dating relationships, they seem to satisfy their (however low) intimacy needs by selecting or marrying admiring partners (Campbell, 1999; Campbell & Foster, 2002; Campbell et al., 2002). Within the confines of such a relationship, high narcissists may experience relatively high couple well-being. We test this notion and examine whether (normal) narcissistic couple well-being is mediated by self-esteem.

Method

Participants and Recruitment

Participants were 79 married couples who took part in Time 1 activities of a three-phase longitudinal study of marital relations.[3] Participants were recruited through notices posted around campus and in the community, as well as through advertisements in local newspapers. Announcements briefly described the project, indicated that the study involved three research sessions over an eight-month period, noted that couples would be paid $50 for taking part in each session, and provided contact information. When couples contacted us, we provided further information about project activities, determined whether couples wished to take part, and scheduled appointments for Time 1 sessions.

Participants were 34.11 years old on average (34.87 for husbands, 33.36 for wives), the majority were Caucasian (81% Caucasian, 10% African American, 4% Hispanic, 2% Asian American, 4% other), and the majority had at least four years of college education

(45% obtained advanced or professional degrees, 37% completed four years of college, 10% completed two years of college, and 8% completed high school only). Their personal annual salaries averaged about $25,000. Participants had been married to one another for 6.05 years on average, and the majority did not have children (73% no children, 11% one child, 8% two children, 8% more than two children).

Procedure

Ten days prior to scheduled laboratory sessions, we mailed couples questionnaires to be separately completed in advance and brought to the session. These questionnaires included measures of normal narcissism, self-esteem, and subjective well-being (along with other constructs that are irrelevant to the objectives of the present study). Upon arrival at Time 1, participants completed a questionnaire including measures of couple well-being. Finally, couples were debriefed and paid.

Measures

Normal narcissism and self-esteem. Participants completed the NPI (*range* = 1-37; *M* = 13.25; α = .85) and the RSI (0 = *do not agree at all*, 8 = *agree completely*; *range* = 28-80; *M* = 62.75; α = .90).

Psychological health. We used two indices of psychological health: subjective well-being and couple well-being. We measured subjective well-being with two scales: the SWLS (0 = *does not describe me at all*, 8 = *describes me completely*; *range* = 0-8; *M* = 5.41; α = .90), and the 10-item Campbell et al. (1976) scale ("Describe your present life by circling a number for each of the following scales"; e.g., "boring-interesting"; "disappointing-rewarding"; *range* = 2-9 [on a 1-9 response scale]; *M* = 6.72; α = .88).

We operationalized couple well-being in terms of dyadic adjustment, relationship commitment, and relationship satisfaction. We measured dyadic adjustment with Spanier's (1976) 32-item Dyadic Adjustment Scale. This scale assesses couple qualities such as affection (e.g., "Do you kiss your partner?"; 0 = *never*, 5 = *every day*), intimacy (e.g., "Do you confide in your mate?"), agreement (e.g., "Do you agree about 'sex relations'?"), and shared activities (e.g., "Do you and your mate engage in outside interests together?"; □□ *range* = 44-146; *M* = 113.88; α = .94). We measured relationship commitment with a 15-

item instrument modeled after previous relevant research (Rusbult, Martz, & Agnew, 1998). Using a 9-point rating scale (0 = *do not agree at all*, 8 = *agree completely*), participants responded to questions that assessed their intention to maintain their relationship (e.g., "I am completely committed to maintaining our marriage"; *range* = 2-8; *M* = 6.76; α = .92). Finally, we measured relationship satisfaction with five items (Rusbult, 1983; e.g., "I feel satisfied with our marriage"; 0 = *do not agree at all*, 8 = *agree completely*; *range* = 0-8; *M* = 6.69; α = .95).

<center>*Results and Discussion*</center>

We review our analyses in three sections. First, we describe hierarchical linear modeling (HLM) and outline the specifics of our analysis strategy. Second, we examine the associations of normal narcissism and self-esteem to measures of psychological health. Third, we test whether self-esteem mediates the relation between normal narcissism and psychological health.

Data Analytic Strategy

Given that data provided by the two partners in a given relationship are not independent, we used HLM (Bryk & Raudenbush, 1992) to account for the nesting of data from partners within couple (Kenny, Kashy, & Bolger, 1998). This data analytic technique examines simultaneously within-couple and between-couple variance, modeling each source of variation while accounting for statistical characteristics of the other level. Predictors and criteria are represented in our analyses as lower level variables; couple as the upper level unit. HLM analyses estimate equations of the following form:

$$\text{Lower Level Model: } Y_{ij} = \beta_{0j} + \beta_{1j}X + r_{ij} \text{ ;}$$

$$\text{Upper Level Intercept: } \beta_{0j} = \gamma_{00} + u_{0j} \text{ ; and}$$

$$\text{Upper Level Slope: } \beta_{1j} = \gamma_{10} + u_{1j}.$$

where X is a given predictor variable and Y_{ij} is the criterion score for Person i in Couple j, r_{ij} is the error term for Person i in Couple j, γ_{00} is the average intercept across couples, γ_{10} is the average slope across couples, u_{0j} is the unique intercept for Couple j, and u_{1j} is the unique slope for Couple j.

Initially, all conducted analyses represented both intercepts and slopes as random effects. When tests examining the variance and covariance components in these analyses revealed nonsignificant across-couple differences in slopes, we recalculated models representing slopes as fixed effects. Slopes were represented as random effects in about 9% of the analyses (i.e., in analyses in which significant across-couple differences were revealed) and as fixed effects in the remaining analyses (i.e., in analyses in which across-couple differences were nonsignificant). For all but one of the analyses, we obtained an identical pattern of significance (or marginality) versus nonsignificance whether intercepts and slopes were represented as fixed or random effects. In the remaining analysis, the representation of the slope as a random effect yielded marginal findings instead of the significant association found with representation of the slope as a fixed effect.

In testing a given hypothesis, we first calculated one-predictor models, examining the association of a single predictor with a single criterion. When a given hypothesis included two predictors of a criterion, we also calculated two-predictor models in which we regressed a single criterion simultaneously onto two predictor variables. We performed preliminary analyses to explore possible gender effects. All preliminary analyses included the main effect of participant gender, along with the interaction of gender with each predictor variable. A few analyses revealed main effects of gender, and the inclusion of gender in the model changed the direct association of two of the predictors with the criterion from marginal significance to non-significance. All other associations yielded identical findings with or without gender in the model. Therefore, we dropped participant gender from further analyses.

Psychological Health

Subjective well-being. First, we regressed self-esteem on normal narcissism. This relation was significant, $\beta = .40$, $p < .001$. Next, we regressed subjective well-being on normal narcissism. Normal narcissism was related positively to subjective well-being (SWLS: $\beta = .17$, $p < .05$; Campbell et al. [1976] scale: $\beta = .28$, $p < .001$).

Next, we regressed both normal narcissism and self-esteem on subjective well-being. When self-esteem was entered in the model, normal narcissism was unrelated to subjective well-being (SWLS: $\beta = .04$, $p < .63$; Campbell et al. [1976] scale: $\beta = .11$, $p < .16$). This

result documents the mediational role of self-esteem, a replication of our previous findings. Similarly, the effects of self-esteem remained significant when entered in the model (SWLS: $\beta = .39$, $p < .001$; Campbell et al. [1976] scale: $\beta = .42$, $p < .001$). Finally, self-esteem mediated the association between normal narcissism and subjective well-being (SWLS: $z = 3.78$, $p < .01$; Campbell et al. [1976] scale: $z = 3.91$, $p < .01$). In conclusion, mediation by self-esteem was complete, in that normal narcissism did not account for unique variance in subjective well-being beyond variance attributable to self-esteem.

Couple well-being. Next, we examined the mediational role of self-esteem in the relation between normal narcissism and couple well-being. First, we regressed each measure of couple well-being on normal narcissism. Normal narcissism was positively related to all of the measures. Specifically, it was significantly associated with dyadic adjustment ($\beta = .14$, $p < .05$), relationship commitment ($\beta = .17$, $p < .05$), and relationship satisfaction ($\beta = .13$, $p < .05$).

Subsequently, we regressed normal narcissism and self-esteem on each measure of couple well-being. When self-esteem was entered in the model, normal narcissism was not related to dyadic adjustment ($\beta = .07$, $p < .33$), relationship commitment ($\beta = .08$, $p < .33$), or relationship satisfaction ($\beta = .05$, $p < .45$). These results establish the mediational role of self-esteem. Further, the effects of self-esteem remained significant when entered in the model for each measure: dyadic adjustment ($\beta = .18$, $p < .01$), relationship commitment ($\beta = .23$, $p < .01$), and relationship satisfaction ($\beta = .22$, $p < .01$). Finally, self-esteem mediated the association of normal narcissism with all of the couple well-being measures: dyadic adjustment ($z = 2.40$, $p < .05$), relationship commitment ($z = 2.56$, $p < .05$), and relationship satisfaction ($z = 2.91$, $p < .05$). In summary, mediation by self-esteem was complete: Normal narcissism did not account for unique variance in couple well-being beyond that attributable to self-esteem[4].

Caveats

The majority of the couples in our sample did not have children. It is possible that normal narcissism exerts a toll on couple well-being only when the demands of a family come into play. Also, our sample consisted mainly of well-educated professionals. It is

possible that normal narcissism is a relatively tolerable, if not acceptable, trait among young professionals, although the reverse hypothesis (i.e., normal narcissism is a more undetected and tolerable trait among relatively uneducated persons) is equally plausible. Nevertheless, we raise these caveats as empirical questions for future research.

Study 4

There is a rival hypothesis to our findings so far. Arguably, the relation between normal narcissism and psychological health is due to a response bias. Normal narcissists provide positively biased responses, rating themselves favorably across the board.

We believe that this rival hypothesis has trouble accounting for our findings. First, high narcissists do not have a monolithic response bias, as they rate themselves negatively (compared to low narcissists) on several traits. Specifically, they rate themselves as exploitative, machiavellian, angry, hostile, disagreeable, unempathetic, and ungrateful (Morf & Rhodewalt, 2001; Sedikides et al., 2002). Moreover, although high narcissists may rate themselves positively on traits that reflect intellectual ability, they do not do so on traits that reflect morality or concern for others (Campbell, Reeder, Sedikides, & Elliot, 2002; see also Paulhus & John, 1998). Finally, Raskin et al. (1991) reported, in a single study, that normal narcissism was uncorrelated with social desirability, as measured by the Edwards (1957) scale. Nevertheless, a direct test of the rival hypothesis is needed in the context of our investigation. This was the objective of Study 4.

We assessed the response bias hypothesis in two ways. First, we included the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). Although this scale was designed as a measure of desirable responding, its authors concluded that high-scoring participants might be more appropriately labeled as defensive, as they engage in self-protective behavior (Crowne, 1979; Crowne & Marlowe, 1964). For example, high-scoring participants are intensely afraid of rejection, are less likely to report justified feelings of hostility and anger, and are more likely to change their privately-held attitudes as a function of dissonance induction. In summary, use of the Marlowe-Crowne scale will allow us to test whether the results of the previous three studies can be explained in terms of defensive responding.

We also tested the response bias hypothesis by assessing levels of psychological repression. Repressors are individuals who lead their daily lives on an emotional plateau, defensively avoiding peaks and troughs. They cope with negative life events with apathy and restraint rather than emotional intensity or reactivity, shunning negative affect or unwanted thoughts (Weinberger, 1990; Weinberger, Schwartz, & Davidson, 1979). We used the Weinberger et al. (1979) scale to identity a sample of repressors. These authors regarded repressors as low on anxiety but high in defensiveness, and devised a scale to reflect this psychological profile. The Weinberger et al. scale has been validated in several investigations (Baumeister & Cairns, 1992; Boden & Baumeister, 1997; Davis, 1987; Hansen & Hansen, 1988).

Method

Participants and Procedure

Participants were 154 (105 women, 49 men) UNC-CH undergraduate students, volunteering for introductory psychology course credit.

Measures

Participants filled out the repression scale and the same packet of questionnaires as in Study 1.

Defensiveness. Participants completed the 33-item Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). Scores range from 0 to 33, with higher scores reflecting greater social desirability (i.e., defensiveness). In our study, scores ranged from 1-28 ($M = 14.6$, $\alpha = .78$).

Repression. Participants completed the Weinberger et al. (1979) repression scale. First, they filled out the Taylor Manifest Anxiety Scale (TMAS; Bendig, 1956). This scale consists of 27 items that measure affective, cognitive and behavioral components of social anxiety. Scores range from 0 to 27, with higher scores reflecting greater social anxiety. In our study, scores range from 7 to 25 ($M = 9.4$, $\alpha = .81$). Second, as mentioned above, participants completed the Marlowe-Crowne Social Desirability Scale. In line with past research (Baumeister & Cairns, 1992; Boden & Baumeister, 1997), we classified as repressors those participants who scored in the lowest quartile on the TMAS and those who scored in the

upper half on the Marlowe-Crowne Social Desirability Scale. Twenty-five participants met these criteria and were considered repressors.

Normal narcissism and self-esteem. Participants completed the NPI (*range* = 4-39; *M* = 17.13; α = .85) and the RSI (1 = *do not agree at all*, 7 = *agree completely*; *range* = 29-70; *M* = 57.97; α = .85).

Depression. Participants completed the CES-D (*range* = 1-52; *M* = 14.29; α = .91) and the BDI (*range* = 0-46; *M* = 6.39; α = .88).

Loneliness. Participants completed the UCLS-LS, Version 3 (*range* = 20-77; *M* = 39.40; α = .92) and the ESLS (*range* = 10-42; *M* = 20.04; α = .76). As in Study 1, the correlation between the ELS and SLS was significant, *r* = .31, *p* < .05.

Subjective well-being. Participants completed the SWLS (*range* = 5-35; *M* = 25.10; α = .85) and the ABS (*range* = 1-10; *M* = 6.48; α = .50). Given the low alpha, we carried out separate analyses for each index of subjective well-being and obtained virtually identical results.

<center>*Results*</center>

To begin with, we examine whether the findings of this study replicate those of the previous studies. We proceed with two waves of analyses. First, we examine the rival hypothesis that our findings are due to high levels of defensiveness among narcissists. Second, we examine the rival hypothesis that our findings are due to high levels of repression among narcissists.

Replication

We tested the hypothesis that self-esteem mediates the relation between normal narcissism and psychological health. We regressed self-esteem on normal narcissism. This relation was significant, β = .35, *p* < .01. Next, we regressed each psychological health index on normal narcissism. Normal narcissism was inversely related to depression (CES-D: β = -.25, *p* < .01; BDI: β = -.25, *p* < .01), was inversely, albeit marginally, related to loneliness (UCLA-LS: β = -.28, *p* < .08; ESLS: β = -.14, *p* < .10), and was positively, albeit in one case marginally, related to subjective well-being (SWBS: β = .14, *p* < .09; ABS: β = .31, *p* < .01). These findings are consistent with those of Studies 1-3. Also consistent with our past

findings, self-esteem predicted psychological health, being inversely related to both measures of depression (CES-D: $\beta = -.61$, $p < .001$; BDI: $\beta = -.62$, $p < .001$) and both measures of loneliness (UCLA-LS: $\beta = -.59$, $p < .001$; ESLS: $\beta = -.53$, $p < .001$), as well as positively related to both measures of subjective well-being (SWBS: $\beta = .56$, $p < .001$; ABS: $\beta = .56$, $p < .001$).

Subsequently, we assessed whether the effects of normal narcissism on psychological health decreased when self-esteem was entered in the model. When self-esteem was included in the model (β for CES-D = -.60, $p < .001$, β for BDI = -.61, $p < .001$), normal narcissism was unrelated both to CES-D, $\beta = -.05$, $p < .49$, and to BDI, $\beta = -.05$, $p < .52$. The indirect effects of normal narcissism on CES-D ($z = 4.01$, $p < .001$) and BDI ($z = 4.03$, $p < .001$) were significant: Self-esteem completely mediated the effect of normal narcissism on depression.

Additionally, self-esteem completely mediated the effect of normal narcissism on loneliness. When self-esteem was entered in the model (β for UCLA-LS = -.56, $p < .001$, β for ESLS = -.56, $p_\mathrm{s} < .001$), normal narcissism was unrelated both to the UCLA-LS ($\beta = -.09$, $p < .20$, and to the ESLS ($\beta = .05$, $p < .48$). Furthermore, self-esteem significantly and fully mediated the relations between normal narcissism and the UCLA-LS ($z = 3.93$, $p < .001$), and between normal narcissism and the ESLS ($z = 3.86$, $p < .001$).

Additionally, self-esteem completely mediated the effect of normal narcissism on subjective well-being. When self-esteem was entered in the model (SWLS: $\beta = .58$, $p < .001$; ABS: $\beta = .52$, $p < .001$), normal narcissism was unrelated to the SWLS ($\beta = -.06$, $p < .40$) and only marginally related to the ABS ($\beta = .12$, $p < .09$). Furthermore, self-esteem significantly mediated the association between normal narcissism and the SWLS ($z = 3.94$, $p < .001$) and between normal narcissism and the ABS ($z = 3.83$, $p < .001$).

Rival Hypothesis I: Defensiveness

Our next wave of analyses tested the rival hypothesis that the above-mentioned findings are due to (normal) narcissistic defensiveness. The potential for defensiveness to complicate our mediational analyses was evident: Defensiveness correlated significantly both with self-esteem ($r = .29$, $p < .0001$) and with every index of psychological health except the BDI (UCLA-LS: $r = -.23$, $p < .001$; ESLS: $r = -.18$, $p < .05$; ABS: $r = .321$, $p < .0001$; SWLS: $r =$

.254, $p < .001$; CES-D: $r = -.20$, $p < .01$; BDI: $r = -.11$, $p < .20$). It did not, however, correlate with normal narcissism directly ($r = -.13$, $p < .11$).

First, we examined whether defensiveness mediates the relations between normal narcissism and psychological health. When defensiveness was entered in the model, normal narcissism continued to predict scores on depression (CES-D: $\beta = -.29$, $p < .001$; BDI: $\beta = -.27$, $p < .01$), loneliness (UCLA-LS: $\beta = -.32$, $p < .001$; ESLS: $\beta = -.16$, $p < .05$), and subjective well-being (SWLS: $\beta = .18$, $p < .03$; ABS: $\beta = .35$, $p < .001$). Defensiveness did not mediate the relations between normal narcissism and psychological health.

Moreover, controlling for defensiveness, self-esteem continued to mediate the relations between normal narcissism and psychological health. First, when self-esteem was entered in the model (β for CES-D = -.58, $p < .001$, β for BDI = -.63, $p < .001$), normal narcissism was unrelated both to CES-D, $\beta = -.06$, $p < .40$, and to BDI, $\beta = -.03$, $p < .70$. The indirect effects of normal narcissism on CES-D ($z = 4.44$, $p < .001$) and BDI ($z = 4.56$, $p < .001$) were significant, indicating that self-esteem completely mediated the effect of normal narcissism on depression. Second, when self-esteem was entered in the model (β for UCLA-LS = -.52, $p < .001$, β for ESLS = -.54, $p_s < .001$), normal narcissism was unrelated both to the UCLA-LS ($\beta = -.12$, $p < .11$, and to the ESLS ($\beta = .05$, $p < .54$). Furthermore, self-esteem significantly and fully mediated the relations between normal narcissism and the UCLA-LS ($z = 4.24$, $p < .001$), and between normal narcissism and the ESLS ($z = 4.23$, $p < .001$). Third, when self-esteem was entered in the model (SWLS: $\beta = .54$, $p < .001$; ABS: $\beta = .44$, $p < .001$), normal narcissism was unrelated to the SWLS ($\beta = -.03$, $p < .66$) but related to the ABS ($\beta = .18$, $p < .02$). Furthermore, self-esteem mediated the relation between normal narcissism and the SWLS ($z = 4.33$, $p < .001$) and between normal narcissism and the ABS ($z = 3.95$, $p < .001$). In summary, there is no evidence for the rival hypothesis that the results are due to (normal) narcissistic defensiveness.

Rival Hypothesis II: Repression

Our final wave of analyses tested the rival hypothesis that the findings are due to correlated levels of repression. Again, the potential for repression to complicate our mediational analyses was evident: Repression, dichotomously scored, correlated significantly

with self-esteem ($r = .32, p < .0001$), as well as with every index of psychological health (UCLA-LS: $r = -.34, p < .0001$; ESLS: $r = -.19, p < .02$; ABS: $r = .28, p < .001$; SWLS: $r = .24, p < .003$; CES-D: $r = -.32, p < .0001$; BDI: $r = -.29, p < .0001$). It did not, however, correlate with normal narcissism directly ($r = .07, p < .38$).

We began by examining whether repression mediates the relations between normal narcissism and psychological health. When controlling for the effects of repression, normal narcissism was inversely related to depression (CES-D: $\beta = -.24, p < .001$; BDS: $\beta = -.24, p < .001$) and to loneliness (UCLA-LS: $\beta = -.27, p < .001$; ESLS: $\beta = -.13, p < .12$), and was positively related to subjective well-being (SWLS: $\beta = .13, p < .11$; ABS: $\beta = .20, p < .001$). Repression did not mediate the relations between normal narcissism and psychological health.

Furthermore, controlling for repression, self-esteem continued to mediate the relations between normal narcissism and psychological health. First, when self-esteem was entered in the model (CES-D: $\beta = -.56, p < .001$ BDI: $\beta = -.58, p < .001$), normal narcissism was unrelated both to CES-D ($\beta = -.05, p < .45$) and to BDI ($\beta = -.05, p < .48$). The indirect effects of normal narcissism on CES-D ($z = 3.89, p < .001$) and BDI ($z = 3.92, p < .001$) were significant, indicating that self-esteem completely mediated the effect of normal narcissism on depression. Second, when self-esteem was entered in the model ($\beta = -.52, p < .001$ for the UCLA-LS; $\beta = -.54, p < .001$, for the ESLS), normal narcissism was unrelated both to the UCLA-LS ($\beta = -.10, p < .17$) and to the ESLS ($\beta = .05, p < .49$). Furthermore, self-esteem significantly and fully mediated the relations between normal narcissism and the UCLA-LS ($z = 3.79, p < .001$), and between normal narcissism and the ESLS ($z = 3.77, p < .001$). Finally, when self-esteem was entered in the model (SWLS: $\beta = .57, p < .001$; ($\beta = .49, p < .001$), normal narcissism was unrelated to the SWLS ($\beta = -.06, p < .42$) but marginally related to the ABS ($\beta = .13, p < .09$). Furthermore, self-esteem mediated the relation between normal narcissism and the SWLS ($z = 3.85, p < .001$) and between normal narcissism and the ABS ($z = 3.70, p < .001$). In summary, there is no evidence for the rival hypothesis that the results are explicable in terms of repression.

Study 5

The aim of Study 5 was to replicate and extend the findings of the previous studies, thereby further bolstering our claim that self-esteem fully mediates the link between normal narcissism and psychological health, and does so independently of response bias. As before, we used four key indices of psychological health: depression, loneliness, subjective well-being, and anxiety. In addition, we used a new index of psychological health: neuroticism. This index reflects the dispositional tendency to experience negative affect (John, 1990) and is inversely related to successful coping and good psychological adjustment (Costa & McCrae, 1987; McCrae & John, 1992; Stoeber, 2003). We also used alternative indices of depression and anxiety.

Furthermore, we used two additional self-esteem indices. One was a global trait self-esteem index (Pliner et al., 1990). The other distinguished between self-competence derived esteem and self-liking derived esteem (Tafarodi & Swann, 1995). The inclusion of the latter scale allowed us to test the possibility that (normal) narcissistic esteem is based to a disproportionate degree on self-competence. If so, then competence-based, compared to liking-based, esteem should emerge as a more potent mediator of the link between normal narcissism and health.

Finally, we included an alternative measure of response bias—impression management—to test whether self-esteem would continue to mediate fully the link between normal narcissism and psychological health even when the tendency to "fake good" was taken into account.

Method

Participants

Participants were 155 (131 women, 24 men) University of Southampton undergraduate students, volunteering in exchange for course credit. Most participants described themselves as White (85%) and British (91%).

Recruitment and Procedure

The study was run entirely on computer. Participants signed up by emailing a research assistant (RA) after reading a posted ad. The RA replied, providing participants with an ID number and password, and directing them to a website from which to download the program

that ran the study. This program took the form of a stand-alone .exe file created by the third author. Participants completed each study session either on their own computer or on a publicly available machine. They were urged to begin each session only if they felt confident that they would remain free from distraction. When each session ended, the program stored participants' data as a coded .rtf file on the C:/ drive of their computer. Participants promptly returned each stored data file to the RA by email attachment. In total, six sessions were run, each on a different day. The data for the current study are derived from a subset of the measures administered during sessions 1, 2, and 4. Twenty participants had data deleted from at least one measure because they (a) responded with suspicious haste or tardiness (six or more responses lasting less than 1000ms or more than 15000ms on any one measure) or (b) furnished suspiciously extreme scores (scores less than the 25th percentile or greater then the 75th percentile by a margin of three times the interquartile range). Ns in various analyses varied from 131 to 151.

Measures

Unless otherwise indicated, all questionnaires (a) were administered during Session 1 and (b) featured 7-point scales (1 = *not at all like me*, 7 = *very much like me*) to which participants responded by clicking on the appropriate digit.

Normal narcissism. Participants completed the NPI (*range* = 2-32; *M* = 11.50; α = .82). The forced-choice format was duplicated by having participants click on one of two buttons for option A or option B.

Self-esteem. Participants completed two different measures during Session 2, and again during Session 4 at least one week later. The first measure was the RSI. Participants responded to each RSI item using a vertical 4-point scale featuring clickable buttons (from the top: *strongly agree*, *agree*, *disagree*, *strongly disagree*). The data obtained during Sessions 2 and 4 (RSI-A, RSI-B) were descriptively similar (*ranges* = 14-40 and 13-40, *Ms* = 29.07 and 29.25, α_s = .91 and .93, respectively) and remained consistent over a period of at least eight days (r_{RSI} = .89).

The second measure was the Fear of Inadequacy Scale (FIS; Janis & Field, 1959; revised by Fleming & Courtney, 1984). The original 36-item inventory measured global self-

esteem aggregated across five specific subscales: self-regard, social anxiety, academic self-esteem, physical attractiveness, and physical prowess. A further six-item body esteem subscale was appended (Pliner et al., 1990) to yield a 42-item scale. For most items, the same pair of contrasting adjectives spanned the 7-point semantic differential (1 = *never*, 7 = *always*), though idiosyncrasies of item wording necessitated an occasional variation (e.g., 1 = *not at all*, 7 = *always*). Scores were reversed so that higher scores denoted greater self-esteem. A sample item is "Do you ever think that you are a worthless individual?". The data obtained during Sessions 2 and 4 (FIS-A, FIS-B) were descriptively similar (*ranges* = 12-55 and 14-62, *Ms* = 39.58 and 39.96, α_s = .96 and .96, respectively) and remained consistent over a period of at least eight days (r_{RSI} = .96).

Participants also completed a further measure of self-esteem during Session 1, the Self-Liking / Self-Competence Scale (SLCS; Tafarodi & Swann, 1995). Balanced for positively and negatively worded items, the questionnaire contained two 10-items subscales, one assessing self-liking (S-L; *range* = 13-68; *M* = 43.97; α = .95), the other assessing self-competence (S-C; *range* = 18-70; *M* = 51.11; α = .92). Sample items are "I like myself" (self-liking) and "I am talented" (self-competence).

Depression and anxiety. Participants completed the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1982). The HADS contained two 7-item subscales, one assessing depression (DEP; *range* = 7-22; *M* = 10.56; α = .71), the other assessing anxiety (ANX; *range* = 8-28; *M* = 15.31; α = .83). Every item was accompanied by an idiosyncratically worded vertical 4-point scale featuring clickable buttons. Sample items are "I feel cheerful" (depression—reverse scored) and "I feel tense or wound up" (anxiety).

Loneliness. Participants completed the UCLS-LS, Version 3 (*range* = 27-68; *M* = 42.00; α = .92).

Subjective well-being. Participants completed the SWLS (*range* = 5-35; *M* = 22.08; α = .86).

Neuroticism. Participants completed the 8-item neuroticism subscale (NEU; *range* = 9-39; *M* = 25.23; α = .87) from the 44-Item Big Five Inventory (BFI44; Benet-Martinez & John, 1998*)*. Participants responded to each item using a vertical 5-point scale featuring

clickable buttons (from top: *strongly agree, agree, neutral, disagree, strongly disagree*). A sample item is "I see myself as someone who can be moody."

      Impression management. Participants completed the 20-item impression management subscale (IMP; *range* = 35-106; M = 68.91; α = .76) of the Balanced Inventory of Desirable Responding, Version 7 (BIDR-7; Paulhus, 1991). A sample item (reversed) is "I never cover up my mistakes."

<div align="center">Results</div>

      First, we tested whether Study 5 replicated the findings of previous studies (i.e., indicated that self-esteem fully mediates the link between normal narcissism and psychological health). Second, we tested whether these findings could be alternatively explained in terms of impression management.

Replication

      We began by separately regressing each of the six indices of self-esteem (RSI-A, RSI-B, FIS-A, FIS-B, S-L, S-C) on normal narcissism. All indices proved to be significant predictors (.44 < β < .61, all p_s < .001).

      Next, we separately regressed each psychological health index on normal narcissism. As in previous studies, normal narcissism was inversely related to depression (DEP: β = -.23, p < .01), to anxiety (ANX: β = -.33, p < .001), and to loneliness (UCLS-LS: β = -.37, p < .001). Normal narcissism was also positively related to subjective well being (SWLS: β = .31, p < .001). In addition, normal narcissism was inversely related to the new index of (poor) psychological health, neuroticism (NEU: β = -.36, p < .001).

      For completeness, we also separately regressed each psychological health index on each of the six indices of self-esteem. Significant relations (all p_s < .001) emerged in all cases (DEP: -.43 < β < -.49; ANX: -.52 < β < -.66; UCLA-LS: -.48 < β < -.58; SWLS: .45 < β < .59; NEU: -.54 < β < -.73).

      Next, we investigated whether the effect of normal narcissism on psychological health was mediated by self-esteem by testing whether, in a series of simultaneous regressions, the inclusion of each self-esteem index entirely eliminated or significantly reduced the capacity of normal narcissism to predict each psychological health index.

When each psychological index was, in turn, simultaneously regressed on normal narcissism, and accompanied by each self-esteem index in turn, the predictive power of self-esteem always remained robust whereas the predictive power of normal narcissism always dramatically declined. Specifically, for each psychological health index, every self-esteem coefficient remained significant (all p_s < .001) in every competitive model (DEP: $-.43 < \beta < -.53$; ANX: $-.49 < \beta < -.65$; UCLA-LS: $-.42 < \beta < -.54$; SWLS: $.43 < \beta < .58$; NEU: $-.50 < \beta < -.71$) whereas every normal narcissism coefficient became nonsignificant (DEP: $-.02 < \beta < .13$; ANX: $-.06 < \beta < .10$; UCLA-LS: $-.14 < \beta < -.06$; SWLS: $-.05 < \beta < .05$; NEU: $-.09 < \beta < .05$).

Finally, self-esteem mediated fully the relations between normal narcissism and each health index (all p_s <. 0001), regardless of which index of self-esteem served as mediator (DEP: $-4.99 < z < -4.22$; ANX: $-6.24 < z < -4.77$; UCLA-LS: $-4.49 < z < -3.66$; SWLS: $4.05 < z < 6.05$; NEU: $-5.42 < z < 4.31$).

Rival Hypothesis III: Impression Management

We once again tested whether the link between normal narcissism and psychological health, and the role of self-esteem in mediating that link, could be put down to a general positive response bias—on this occasion, the tendency to provide socially desirable answers to inquiries about oneself. Such a bias, we reasoned, might artificially inflate correlations between our three key indices: People keen to portray themselves positively might endorse items indicative of psychosocial success on all three indices whereas people unconcerned about portraying themselves positively so might fail to do so. The finding, this time, of a significant zero-order correlation between our index of normal narcissism and impression management ($r = -.23$, $p < .005$) suggests that impression management might well play a role in accounting for our mediational findings.

Our data analytic strategy, therefore, was to re-run the regressions described above, only this time including, at each stage, our impression management index as a predictor variable. If socially desirable responding accounted, in whole or in part, for the self-esteem mediated link between normal narcissism and psychological health, then the strength and significance of findings previously obtained would be decisively attenuated.

So, with impression management included in the model, we began by separately regressing each of six indices of self-esteem (RSI-A, RSI-B, FIS-A, FIS-B, S-L, S-C) on normal narcissism. All indices remained significant predictors ($.47 < \beta < .65$, all $p_s < .001$). Indeed, if anything, impression management served as a mild suppressor variable. Impression management itself was not significantly related to any self-esteem index.

Next, with impression management again included in the model, we separately regressed each psychological health index on normal narcissism. Normal narcissism remained inversely related to depression (DEP: $\beta = -.25$, $p < .01$), anxiety (ANX: $\beta = -.35$, $p < .001$), loneliness (UCLS-LS: $\beta = -.37$, $p < .001$), and neuroticism (NEU: $\beta = -.21$, $p < .05$). In addition, normal narcissism remained positively related to subjective well-being (SWLS: $\beta = .35$, $p < .001$). Although impression management showed no significant zero-order correlations with any index of psychological health, it did weakly predict subjective well-being (SWLS: $\beta = .20$, $p < .05$) in these regressions.

For completeness, we also separately regressed each psychological health index on each of the six indices of self-esteem, again including impression management in each model. Significant relations (all $p_s < .001$) emerged in all cases (DEP: $-.43 < \beta < -.49$; ANX: $-.52 < \beta < -.66$; UCLA-LS: $-.48 < \beta < -.57$; SWLS: $.45 < \beta < .59$; NEU: $-.54 < \beta < -.73$). Here, impression management was consistently unrelated to all psychological health indices ($-.08 < \beta < .07$) with the exception of subjective well-being, which it significantly predicted in tandem with FIS-B ($\beta = .16$, $p < .03$) and S-C ($\beta = .14$, $p < .05$), and marginally predicted in tandem with the four remaining self-esteem indices ($.13 < \beta < .11$; $.06 < p < .13$).

Crucially, we also tested whether, in a series of simultaneous regressions, the inclusion of each self-esteem index eliminated or reduced the capacity of normal narcissism to predict each psychological health index when impression management also served as a predictor variable.

As before, self-esteem's contribution to each model persisted whereas normal narcissism's contribution dwindled (with one exception). Specifically, for each psychological health index, every self-esteem coefficient remained significant (all $p_s < .001$) in the competitive model (DEP: $-.43 < \beta < -.53$; ANX: $-.48 < \beta < -.65$; UCLA-LS: $-.42 < \beta < -.54$;

SWLS: $.41 < \beta < .56$; NEU: $-.48 < \beta < -.69$), whereas every normal narcissism coefficient (but one) became nonsignificant (DEP: $-.03 < \beta < .11$; ANX: $-.07 < \beta < .10$; UCLA-LS: $-.12 < \beta < -.06$; SWLS: $.01 < \beta < .10$; NEU: $-.13 < \beta < .03$). Once more, impression management was consistently unrelated to all psychological health indices ($-.13 < \beta < .05$) with the exception of subjective well-being, which it weakly but significantly predicted in tandem with RSI-B ($\beta = .16$, $p < .03$), FIS-B ($\beta = .17$, $p < .03$), and S-C ($\beta = .15$, $p < .03$), and marginally predicted in tandem with the three remaining self-esteem indices ($.12 < \beta < .14$; $.06 < p < .08$).

Finally, self-esteem mediated completely the relations between normal narcissism and each health index (all $p_s <. 0001$), regardless of which index of self-esteem served as mediator (DEP: $-4.96 < z < -4.14$; ANX: $-6.27 < z < -4.74$; UCLA-LS: $-3.68 < z < -4.55$; SWLS: $3.99 < z < 6.05$; NEU: $-5.57 < z < -4.32$).

In summary, Study 5 replicated and extended the finding of previous studies that self-esteem mediated the link between normal narcissism and psychological health, and obtained no evidence that this finding could be alternatively explained in terms of impression management. Additionally, the study obtained no evidence that (normal) narcissistic self-esteem is based more on self-competence than self-liking.

Dangerous Curves?

All the bivariate associations and mediational analyses reported so far have assumed that normal narcissism, self-esteem, and psychological health are *linearly* related. However, if the relations between them do depart significantly from linearity, then our interpretation of our results so far might merit revision or qualification.

Suppose, for example, that across all our studies, the links between normal narcissism and self-esteem, and those between self-esteem and psychological health, were linear, but that the links between normal narcissism and psychological health were nonlinear. If so, we would have consistently underestimated the true association between normal narcissism and psychological health, and thereby overestimated the role of self-esteem in mediating that association by focusing only on linear components. This would then have biased our analysis in favor of confirming our central hypothesis. (The neglect of other patterns of nonlinearity,

though not as damaging to our conclusions, would nonetheless have rendered inexact our interpretations of mediation.) Moreover, even at a purely descriptive level, it is obviously important to characterize properly any nonlinearity obtaining between normal narcissism, self-esteem, and psychological health, because such nonlinearity would contain valuable supplementary information. For example, suppose that the positive relation between normal narcissism and psychological health were not only significantly linear but also significantly quadratic and decelerating. This would imply that the positive link between normal narcissism and psychological health decreases as normal narcissism increases, that is, that the positive link between normal narcissism and psychological health is more pronounced for persons lower in narcissism.

Rather than report the level of linearity observed for every association already reported—a service for which few readers would forgive us—we instead present the results of analyses conducted on aggregate data across studies. Not only do such analyses allow us to address the issue of linearity more briskly, but they also permit us to run more powerful statistical tests.[5]

Our five studies did not overlap perfectly in the measures that they employed, and, when they did, sometimes featured different response scales. We therefore rescaled all of our measures along a common metric (0-100) before assembling three aggregate datasets that featured selected indices of psychological health. In particular, we collated data from Studies 1, 3, 4 and 5 on subjective well-being (SWLS)[6], from Studies 1, 4, and 5 on loneliness (UCLA-LS), and from Studies 1 and 4 on depression (BDI and CES-D). Each of these three aggregate datasets included corresponding scores for normal narcissism (NPI) and self-esteem (RSI)[7], available across all five studies.[8]

Following data transformations aimed at minimizing collinearity[9], we arrived, across different samples, at independent estimates of the linear and quadratic association between (a) normal narcissism (NPI) and self-esteem (RSI), (b) normal narcissism (NPI) and each the four indices of psychological health (SWLS, UCLA-LS, BDI, and CES-D), and (c) self-esteem (RSI) and each the four indices of psychological health (SWLS, UCLA-LS, BDI, and CES-D). The results are summarized in Tables 1, 2, and 3. The tables feature standardized

coefficients representing the independent linear and quadratic components of the relations of interest. Such components can be computed by treating either variable in the relation as the predictor or criterion (e.g., NPI could be regressed on RSI and its quadratic product RSI^2 or RSI could be regressed on NPI and its quadratic product NPI^2). The results of both types of computation are presented.

Unsurprisingly, substantial and highly significant linear relations emerged (all p_s < .0001) between (a) normal narcissism and self-esteem, (b) normal narcissism and psychological health, and (c) self-esteem and psychological health. However, no unequivocal evidence was found of additional quadratic relations. Despite sporadically attaining significance[10], none of the quadratic coefficients ever exceeded .11 in absolute magnitude. (Note that this represents approximately 1% of the variance, whereas linear relations accounted for between 4% and 34% of the variance across different analyses.)[11] We conclude that relations among our key constructs are adequately captured by a linear model, and that the conclusions of our correlational and mediational analyses do not require revision.

General Discussion

The current investigation had several objectives. The first objective was to provide a compelling empirical account for the previously obtained weak link between normal narcissism and psychological health. Specifically, past research had reported an inverse relation between normal narcissism and depression (Watson & Biderman, 1993; Wink, 1992), normal narcissism and anxiety (Watson & Biderman, 1993), and normal narcissism and subjective well-being (Rose, 2002). Additionally, one study had reported a null finding regarding the association between normal narcissism and loneliness (Joubert, 1986), whereas, to our knowledge, no prior research had examined the relations between normal narcissism and neuroticism.

To this end, we conducted five studies. In Study 1, participants completed one-time measures of normal narcissism, self-esteem, and psychological health (i.e., depression, loneliness, subjective well-being). In Study 2, they completed one-time measures of normal narcissism and self-esteem, and subsequently reported their daily level of psychological health (i.e., sadness, loneliness, subjective well-being, anxiety) for five consecutive days. In

Study 3, participants completed one-time measures of normal narcissism, self-esteem, and psychological health (i.e., subjective well-being, couple well-being). In Study 4, they completed one-time measures of repression, normal narcissism, self-esteem, and psychological health (i.e., depression, loneliness, subjective well-being). Finally, in Study 5, participants completed one-time measures of normal narcissism and psychological health (i.e., depression, loneliness, subjective well-being, anxiety, neuroticism), as well as repeated measures of some self-esteem indices.

These studies established that normal narcissism is: (a) inversely related to dispositional depression (Studies 1, 3-5) and daily sadness (Study 2), (b) inversely related to dispositional loneliness (Studies 1, 4, 5) and daily loneliness (Study 2), (c) positively related to dispositional subjective well-being (Studies 1, 3-5), daily subjective well-being (Study 2), and couple well-being (Study 3), (d) inversely related to dispositional anxiety (Study 5) and daily anxiety (Study 2), and (e) inversely related to dispositional neuroticism (Study 5). The findings are thus consistent with the emerging portrait of the high narcissist as a psychologically healthy person (Campbell, 2001; Rose, 2002; Sedikides & Gregg, 2001). Thus, high narcissists may be socially callous, but that is no reason for them not to be psychologically healthy. To use a far-fetched metaphor, the mind of a normal narcissist is like a sports utility vehicle. It is great to be in the driving seat, but fellow motorists must watch out, lest a collision with this mobile fortress demolish their more humble hatchbacks.

High narcissists have elevated levels of self-esteem, and self-esteem is a correlate of psychological health. We therefore hypothesized that it is thanks to their elevated self-esteem that high narcissists are relatively free of worry and gloom. This we duly established. Self-esteem emerged consistently as a mediator of the link between normal narcissism and psychological health, invariably accounting for the impact of normal narcissism on depression, sadness, loneliness, subjective well-being, couple well-being, anxiety, and neuroticism. Thus, if normal narcissism is associated with psychological health benefits, this is due to its overlap with self-esteem. Moreover, additional analyses indicated that the relations among normal narcissism, self-esteem, and psychological health are predominantly linear.

High narcissists have been considered relatively high on agency but low on communion (Campbell et al., 2002; Paulhus & John, 1998). This may have implications for the (normal) narcissistic bases of self-esteem. That is, normal narcissistic self-esteem may derive more from self-perceptions of competence than from self-perceptions of likability. If so, then the self-competence dimension of normal narcissistic self-esteem should emerge as a more potent mediator of the relation between normal narcissism and psychological health than the self-liking dimension. This hypothesis was discredited in a preliminary test (Study 5). Apparently, high narcissists derive self-esteem by considering the self both very competent and very likable. Both dimensions of self-esteem mediate the link between normal narcissism and psychological health.

Can the results be accounted for simply by a response bias? Is the reporting of good psychological health a symptom of a rigid, positive, or socially desirable response bias on the part of narcissists? Stated otherwise, can our findings be accounted for in terms of high levels of (normal) narcissistic defensiveness, repression, or impression management? Studies 4 and 5 ruled out these hypotheses. Our results (i.e., the link between normal narcissism and psychological health, and the mediational role of self-esteem) held even controlling for level of defensiveness, repression, or impression management. Normal narcissism predicts psychological health, not a mere illusory exaggeration of psychological health.

Nevertheless, given that the current investigation is the first to address fully and directly the mediational role of self-esteem in the link between normal narcissism and psychological health link, the findings ought to be subject to further verification. Although we believe that self-reports have a place in psychological research, especially when response biases are accounted for, we also believe that additional measurements and procedures need to be recruited and used in future relevant research. Are the obtained findings replicated (a) with implicit measures of normal narcissism, self-esteem, and psychological health, especially in longitudinal designs, (b) by observer (in particular, close other) reports of narcissistic self-esteem and psychological health, or (c) when narcissists are placed under conditions of psychological threat? Finally, does the stability (Kernis, 2003) or contingency (Crocker & Wolfe, 2001; Deci & Ryan, 1995) of self-esteem mediate the relation between

normal narcissism and psychological health—a possibility consistent with the finding that normal narcissists report relatively high self-esteem instability (Rhodewalt, in press; Rhodewalt et al., 1998)?

The current investigation established that the self-esteem component of normal narcissism accounts for the link between normal narcissism and psychological health. However, self-esteem may not account exclusively for that link. Future research needs to test at least three other components of normal narcissism. The first is control: High narcissists have an inflated sense of personal control over their environment (Watson, Sawrie, & Biderman, 1991). The second is power: Normal narcissism is associated with a heightened need for status and power (Bradlee & Emmons, 1992; Carroll, 1987). The third is achievement: High narcissists have high expectations for themselves (Farwell & Wohlwend-Lloyd, 1998), and high self-efficacy is linked with high need for achievement (Pajares, 1997). Collectively, these empirical pursuits promise to clarify substantially both the construct of normal narcissism and the component that is most responsible for the good psychological health of high narcissists. In fact, testing these likely components of narcissism would clarify better the NPI per se. If anything, judging from the current results, one is tempted to wonder whether the NPI captures a great deal of variance over and above that associated with unusually high self-esteem.

In conclusion, results from five studies, involving over 600 participants from two countries, disconfirmed the prevailing view that high narcissists, given their interpersonal deficits, must suffer ill psychological health. Although high narcissists are interpersonally exploitative and abrasive, they also are psychologically healthy. Their good health is due, at least to a considerable degree, to their elevated levels of self-esteem.

References

Argyle, M. (1987). *The psychology of happiness*. London: Methuen.

Aube, J., Fichman, L., Saltaris, C., & Koestner, R. (2001). Gender differences in depression among teenagers: Towards an integrated social developmental model. *Journal of Social and Clinical Psychology, 19*, 297-313.

Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion*. Chicago: Rand McNally.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 23*, 363-377.

Baumeister, R. F., Campbell, J. D., Krueger, J., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest, 4*, 1-44.

Baumeister, R. F., & Cairns, K. (1992). Repression and self-presentation: When audiences interfere with self-deceptive strategies. *Journal of Personality and Social Psychology, 62*, 851-862.

Baumeister, R. F., & Vohs, K. D. (2001). Narcissism as addiction to esteem. *Psychological Inquiry, 12*, 206-210.

Beck, A. T. (1967). *Depression: Causes and treatment*. Philadelphia: University of Pennsylvania Press.

Bendig, W. (1956). The development of a short form of the Manifest Anxiety Scale. *Journal of Counseling Psychology, 20*, 384.

Benet-Martinez, V., & John, O. P. (1998). Los Cinco Grandes across cultures and ethnic groups: Multitrait multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology, 75*, 729-750.

Berscheid, E., & Reis, H. T. (1998). Attraction and close relationships. In S. Fiske, D. Gilbert, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 193-281). Boston, MA: McGraw-Hill.

Boden, J. M., & Baumeister, R. F. (1997). Repressive coping: Distraction using pleasant thoughts and memories. *Journal of Personality and Social Psychology, 73*, 45-62.

Bradburn, N. (1969). *The structure of perceived mental health*. Chicago: Aldine.

Bradlee, P. M., & Emmons, R. A. (1992). Locating narcissism within the interpersonal circumplex and the five-factor model. *Personality and Individual Differences, 13*, 821-830.

Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park, CA: Sage.

Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology, 75*, 219-229.

Campbell, A., Converse, P. E., & Rodgers, W. L. (1977). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.

Campbell, W. K. (1999). Narcissism and romantic attraction. *Journal of Personality and Social Psychology, 77*, 1254-1270.

Campbell, W. K. (2001). Is narcissism really so bad? *Psychological Inquiry, 12*, 214-216.

Campbell, W. K., Sedikides, C., & Bosson, J. (1994). Romantic involvement, self-discrepancy, and psychological well-being: A preliminary investigation. *Personal Relationships, 1*, 399-404.

Campbell, W. K., Foster, C. A., & Finkel, E. J. (2002). Does self-love lead to love for others?: A story of narcissistic game-playing. *Journal of Personality and Social Psychology, 83*, 340-354.

Campbell, W. K., & Foster, C. A. (2002). Narcissism and commitment in romantic relationships: An investment model analysis. *Personality and Social Psychology Bulletin, 28*, 484-495.

Campbell, W. K., Reeder, G., Sedikides, C., & Elliot, A. J. (2000). Narcissism and comparative self-enhancement strategies. *Journal of Research in Personality, 34*, 329-347.

Campbell, W. K., Rudich, E. A., & Sedikides, C. (2002). Narcissism, self-esteem, and the positivity of self-views: Two portraits of self-love. *Personality and Social Psychology Bulletin, 28*, 358-368.

Campbell, W. K., & Sedikides, C. (1999). Self-threat magnifies the self-serving bias: A meta-analytic integration. *Review of General Psychology, 3*, 23-43.

Carroll, L. (1987). A study of narcissism, affiliation, intimacy, and power motives among students in business administration. *Psychological Reports, 61*, 355-358.

Cohen, J., Cohen, P., West, S., & Aiken, L. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cooper, A., & Ronningstam, E. (1992). Narcissistic personality disorder. *American psychiatric press review of psychiatry* (pp. 80-97). Washington, DC: American Psychiatric Press.

Costa, P. T., & McCrae, R. R. (1987). Neuroticism, somatic complaints, and disease: Is the bark worse than the bite? *Journal of Personality, 55*, 299-316.

Costa, P. T., & McCrae, R. R. (1995). Domains and factors: Hierarchical personality assessment using the NEO personality inventory. *Journal of Personality Assessment, 64*, 21-50.

Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review, 108*, 593-623.

Crowne, D. P. (1979). *The experimental study of personality*. Hillsdale, NJ: Erlbaum.

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349-354.

Crowne, D. P., & Marlowe, D. (1964). *The approval motive: Studies in evaluative dependence*. New York: Wiley.

Davidov, M., & Morf, C. C. (2004). *Narcissism and Interpersonal Relationships: Putting Away the Ones We Need*. Unpublished data, University of Toronto.

Davis, P. J. (1987). Repression and the inaccessibility of affective memories. *Journal of Personality and Social Psychology, 53*, 585-593.

Deci, E. L., & Ryan, R. M. (1995). Human autonomy: The basis for true self-esteem. In M. Kernis (Ed.), *Efficacy, agency, and self-esteem* (pp. 31-49). New York: Plenum.

DeNeve, K., & Cooper, H. (1998). The happy personality: a meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*, 197-229.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542-575.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75.

Edwards, A. L. (1957). *The social desirability variable in personality assessment and research*. New York: Dryden.

Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology, 52*, 11-17.

Farwell, L., & Wohlwend-Lloyd, R. (1998). Narcissistic processes: Optimistic expectations, favorable self-evaluations, and self-enhancing attributions. *Journal of Personality, 66*, 65-83.

Fleming, J. S., & Courtney, B. E. (1984). The dimensionality of self-esteem. II. Hierarchical facet model for revised measurement scales. *Journal of Personality and Social Psychology, 46*, 404-421.

Gabriel, M. T., Critelli, J. W., & Ee, J. S. (1994). Narcissistic illusions in self-evaluations of intelligence and attractiveness. *Journal of Personality, 62*, 143-155.

Gjerde, P. F., Block, J., & Block, J. H. (1988). Depressive symptoms and personality during late adolescence: Gender differences in the externalization-internalization of symptom expression. *Journal of Abnormal Psychology, 86*, 475-486.

Gramzow, R. H., Sedikides, C., Panter, A. T., & Insko, C. A. (2000). Aspects of self-regulation and self-structure as predictors of perceived emotional distress. *Personality and Social Psychology Bulletin, 26*, 188-206.

Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology, 67*, 430-445.

Hansen, R. D., & Hansen, C. H. (1988). Repression of emotionally tagged memories: The architecture of less complex emotions. *Journal of Personality and Social Psychology, 55*, 811-818.

Helgeson, V. S. (1994). Relation of agency and communion to well-being: Evidence and potential explanation. *Psychological Bulletin, 116*, 412-428.

Holahan, C. K., & Spence, J. T. (1980). Desirable and undesirable masculine and feminine traits in counselling clients and unselected students. *Journal of Consulting and Clinical Psychology, 48*, 300-302.

House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science, 241*, 540-545.

Janis, I. L., & Field, P. B. (1959). A behavioral assessment of persuasibility: Consistency of individual differences. In C. I. Hovland & I. L. Janis (Eds.), *Personality and persuasibility* (pp. 29-54). New Haven, CT: Yale University Press.

John, O. P. (1990). The "Big Five" factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 66-100). New York: Guilford Press.

John, O. P., & Robins, R. W. (1994). Accuracy and bias in self-perception: Individual differences in self-enhancement and the role of narcissism. *Journal of Personality and Social Psychology, 66*, 206-219

Jones, W. H., Freemon, J. E., & Goswick, R. A. (1981). The persistence of loneliness: Self and other determinants. *Journal of Personality, 49*, 27-48.

Joubert, C. E. (1986). Social interest, loneliness, and narcissism. *Psychological Reports, 58*, 870.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th Ed., Vol. 1, pp. 233-265). Boston: McGraw-Hill

Kernis, M. H. (2001). Following the trail from narcissism to fragile self-esteem. *Psychological Inquiry, 12*, 223-225.

Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry, 14*, 1-26.

Kernis, M. H., & Sun, C. (1994). Narcissism and reactions to interpersonal feedback. *Journal of Research in Personality, 28*, 4-13.

Kitson, G. C., & Morgan, L. A. (1990). The multiple consequences of divorce. *Journal of Marriage and the Family, 52*, 913-924.

Leary, T. (1957). *Interpersonal diagnosis of personality*. New York: Ronald.

Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. In M. P. Zanna (Eds.), *Advances in experimental social psychology, 32*, 1-62. New York: Academic Press.

Leary, M. R., Cottrell, C. A., & Phillips, M. (2001). Deconfounding the effects of dominance and social acceptance on self-esteem. *Journal of Personality and Social Psychology, 81*, 898-909.

Marangoni, C., & Ickes, W. (1989). Loneliness: A theoretical review with implications for measurement. *Journal of Social and Personal Relationships, 6*, 93-128.

McClelland, G. H. (2000). Nasty Data. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social psychology* (pp. 393-411). Cambridge, MA: Cambridge University Press.

McCrae, R. R., & Costa, P. T. (1990). *Personality in adulthood*. New York: Guilford.

McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality, 60*, 175-215.

Michelson, K. D., Kessler, R. C., & Shaver, P. R. (1997). Adult attachment in a nationally representative sample. *Journal of Personality and Social Psychology, 73*, 1092-1106.

Morf, C. C., & Rhodewalt, F. (1993). Narcissism and self-evaluation maintenance: Explorations in object relations. *Personality and Social Psychology Bulletin, 19*, 668-676.

Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry, 12*, 177-196.

Morf, C. C., Weir, C. R., & Davidov, M. (2000). Narcissism and intrinsic motivation: The role of goal congruence. *Journal of Experimental Social Psychology, 36*, 424-438.

Mosteller, F, & Tukey, J. W. (1977). *Data analysis and regression*. Reading, MA: Addison-Wesley.

Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science, 6*, 10-19.

Pajares, F. (1997). Current directions in self-efficacy research. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 10, pp. 1-49). Greenwich, CT: JAI Press.

Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). San Diego, CA: Academic Press.

Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology, 74*, 1197-1208.

Paulhus, D. L. (2001). Normal narcissism: Two minimalist accounts. *Psychological Inquiry, 12*, 228-230.

Paulhus, D. L., & John, O. P. (1998). Egoistic and moralistic biases in self-perception: The interplay of self-deceptive styles with basic traits and motives. *Journal of Personality, 66*, 1025-1060.

Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality, 36*, 556-563.

Pliner, P., Chaiken, S., & Flett, G. L. (1990). Gender differences in concern with body weight and physical appearance over the life span. *Personality and Social Psychology Bulletin, 16*, 263-273.

Pyszczynski, T., & Greenberg, J. (1987). Self-regulatory perseveration and the depressive self-focusing style: A self-awareness theory of reactive depression. *Psychological Bulletin, 102*, 122-138.

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.

Raskin, R., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports, 45*, 590.

Raskin, R., & Hall, C. S. (1981). The narcissistic personality inventory: Alternate form reliability and further evidence of construct validity. *Journal of Personality Assessment, 45*, 159-162.

Raskin, R., Novacek, J., & Hogan, R. (1991). Narcissism, self-esteem, and defensive self-enhancement. *Journal of Personality, 59*, 20-38.

Raskin, R., & Terry, H. (1988). A principle components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology, 54*, 890-902.

Rempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology, 49*, 95-112.

Rhodewalt, F. (in press). Social motivation and object relations: Narcissism and interpersonal self-esteem regulation. In J. Forgas, K. Williams, & W. von Hippel (Eds.), *Social motivation*. New York: Cambridge University Press.

Rhodewalt, F. (2001). The social mind of the narcissist: Cognitive and motivational aspects of interpersonal self-construction. In J. P. Forgas, K Williams, & L. Wheeler (Eds.), *The social mind: Cognitive and motivational aspects of interpersonal behavior* (pp. 177-198). New York: Cambridge University Press.

Rhodewalt, F., Madrian, J. C., & Cheney, S. (1998). Narcissism, self-knowledge organization, and emotional reactivity: The effect of daily experiences on self-esteem and affect. *Personality and Social Psychology Bulletin, 24*, 75-87.

Rhodewalt, F., & Morf, C. C. (1995). Self and interpersonal correlates of the narcissistic personality inventory. *Journal of Research in Personality, 29*, 1-23.

Rhodewalt, F., & Morf, C. C. (1998). On self-aggrandizement and anger: A temporal analysis of narcissism and affective reactions to success and failure. *Journal of Personality and Social Psychology, 74*, 672-685.

Rhodewalt, F., & Morf, C. C. (in press). Reflections in troubled waters: narcissism and the vicissitudes of an interpersonally contextualized self. In A. Tesser, J. V. Wood, & D.

Stapel (Eds.), *On building, defending and regulating the self: A psychological perspective*. Philadelphia, PA: Psychology Press.

Rhodewalt, F., & Shimoda (2002). *What's Love Got to Do with It?: Narcissism and Romantic Relationships*. Unpublished data, University of Utah.

Robins, R., Hendin, H., & Trzesniewski, K. (2001). Measuring global self-esteem: construct validation of a single item measure and the Rosenberg Self-Esteem scale. *Personality and Social Psychology Bulletin, 27*, 151-161.

Rose, P. (2002). The happy and unhappy faces of narcissism. *Personality and Individual Differences, 33*, 379-391.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton: Princeton University Press.

Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology, 45*, 101-117.

Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The investment model scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*, 357-391.

Russell, D. W., & Cutrona, C. E. (1988). *Development and Evolution of the UCLA Loneliness Scale*. Unpublished manuscript, Center for Well-being Services Research, College of Medicine, University of Iowa.

Russell, D. W., Cutrona, C. E., Rose, J., & Yurko, K. (1984). Social and emotional loneliness: An examination of Weiss's typology of loneliness. *Journal of Personality and Social Psychology, 46*, 1313-1321.

Russell, R. J. H., & Wells, P. A. (1994). Predictors of happiness in married couples. *Personality and individual Differences, 17*, 313-321.

Saragovi, C., Aube, J., Koestner, R., & Zuroff, D. (2002). Traits, motives, and depressive styles as reflections of agency and communion. *Personality and Social Psychology Bulletin, 28*, 563-577.

Sedikides, C., & Gregg, A. P. (2001). Narcissists and feedback: Motivational surfeits and motivational deficits. *Psychological Inquiry, 12*, 237-239.

Sedikides, C., & Gregg. A. P. (2003). Portraits of the self. In M. A. Hogg & J. Cooper (Eds.), *Sage handbook of social psychology* (pp. 110-138). London: Sage Publications.

Sedikides, C., Campbell, W. K., Reeder, G., & Elliot, A. J. (1998). The self-serving bias in relational context. *Journal of Personality and Social Psychology, 74*, 378-386.

Sedikides, C., Campbell, W. K., Reeder, G., & Elliot, A. J. (2002). The self in relationships: Whether, how, and when close others put the self "in its place." In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology, 12*, 237-265.

Sedikides, C., Campbell, W. K., Reeder, G., Elliot, A. J., & Gregg, A. P. (2002). Do others bring out the worst in narcissists? The "Others Exist for Me" illusion. In Y. Kashima, M. Foddy, & M. Platow (Eds.), *Self and identity: Personal, social, and symbolic* (pp. 103-123). Mahwah, NJ: Lawrence Erlbaum Associates.

Smalley, R. L., & Stake, J. E. (1996). Evaluating sources of ego-threatening feedback: Self-esteem and narcissism effects. *Journal of Research in Personality, 30*, 483-495.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38*, 15-28.

Stack, S., & Eshleman, J. R. (1998). Marital status and happiness: A 17-nation study. *Journal of Marriage and the Family, 60*, 527-536.

Steer, R. A., Beck, A. T., & Garrison, B. (1986). Applications of the Beck Depression Inventory. In N. Sartorius & T. A. Ban (Eds.), *Assessment of depression* (pp. 123-142). Berlin: Springer-Verlag.

Stoeber, J. (2003). Self-pity: Exploring the links to personality, control beliefs, and anger. *Journal of Personality, 71*, 183-220.

Stucke, T. S., & Sporer, S. L. (2002). When a grandiose self-image is threatened: Narcissism and self-concept clarity as predictors of negative emotions and aggression toward ego threat. *Journal of Personality, 70*, 509-532.

Tafarodi, R. W., & Milne, A. B. (2002). Decomposing global self-esteem. *Journal of Personality, 70*, 443-483.

Tafarodi, R. W., & Swann, W. B. Jr. (1995). Self-liking and self-competence as dimensions of global self-esteem: Initial validation of a measure. *Journal of Personality Assessment, 65*, 322-342.

Tarlow, E. M., & Haaga, D. A. F. (1996). Negative self-concept: Specificity to depressive symptoms and relation to positive and negative affectivity. *Journal of Research in Personality, 30*, 120-127.

Tennen, H., & Herzberger, S. (1987). Depression, self-esteem, and the absence of self-protective attributional biases. *Journal of Personality and Social Psychology, 52*, 72-80.

Tracy, J. L., & Robins, R. W. (2003). "Death of a (narcissistic) salesman:" An integrative model of fragile self-esteem. *Psychological Inquiry, 14*, 57-62.

Wallace, H. M., & Baumeister, R. F. (2002). The performance of narcissists rises and falls with perceived opportunity for glory. *Journal of Personality and Social Psychology, 82*, 819-834.

Watson, P. J., & Biderman, M. D. (1993). Narcissistic Personality Inventory factors, splitting and self-consciousness. *Journal of Personality Assessment, 61*, 41-57.

Watson, P. J., Sawrie, S. M., & Biderman, M. D. (1991). Personal control, assumptive worlds, and narcissism. *Journal of Social Behavior and Personality, 6, 929-941*.

Weinberger, D. A. (1990). The construct validity of the repressive coping style. In J. L. Singer (Ed.), *Repression and dissociation: Implications for personality theory, psychopathology, and health* (pp. 337-386). Chicago: University of Chicago Press.

Weinberger, D. A., Schwartz, G. E., & Davidson, R. J. (1979). Low-anxious, high-anxious, and repressive coping styles: Psychometric patterns and behavioral and physiological responses to stress. *Journal of Abnormal Psychology, 88*, 369-380.

Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal domain. *Journal of Personality and Social Psychology, 37*, 295-412.

Wiggins, J. S., & Pincus, A. L. (1994). Agency and communion as conceptual coordinates for the understanding and measurement of interpersonal behavior. In P. T. Costa & T. A.

Widiger (Eds.), *Personality disorders and the five-factor model of personality* (pp. 73-93). Washington, DC: American Psychological Association.

Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology, 61*, 590-597.

Wink, P. (1992). Three narcissism scales for the California Q-set. *Journal of Personality Assessment, 58*, 51-66.

Wittenberg, M. T. (1986). *Emotional and Social Loneliness: An Examination of Social Skills, Attributions, Sex Role and Object Relations Perspectives*. Unpublished doctoral dissertation, University of Rochester.

Zigmond, A. S., & Snaith, R. P. (1982). The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavia*, *67*, 361-370.

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Footnotes

[1] Testing whether an indirect effect (i.e., ab) is significant involved testing the change in beta from the simple to multiple regression. Specifically, the z for ab is as follows:

$$Z = \frac{ab}{\sqrt{b^2 s_a^2 \quad + \quad a^2 s_b^2 \quad - \quad s_a^2 s_b^2}}$$

where b is the standardized beta for the effect of the mediator on the dependent variable when the independent variable (IV) is in the model, S_b is the standard error for b, a is the standardized beta obtained from regressing the mediator on to the IV, and S_a is the standard error for a. For a more detailed exposition, see Kenny, Kashy, and Bolger (1998) or consult the following websites: <http://nw3.nai.net/~dakenny/mediate.htm> and <http://quantrm2.psy.ohio-state.edu/kris/sobel/sobel.htm>.

[2] We also examined the correlations between narcissism or self-esteem and psychological health variability, operationalized in terms of the standard deviation for each psychological health index. Narcissism was uncorrelated with psychological health variability. Note that Rhodewalt, Madrian, and Cheney (1998) found that, over a period of several days, narcissists reported greater variability than non-narcissists on positive mood and mood intensity. Additional research will need to test whether the different emotion indices used were responsible for this conceptual discrepancy. In contrast to narcissism, self-esteem was related to two indices of psychological health variability: sadness ($r = -.21$, $p < .10$) and anxiety ($r = -.25$; $p < .05$).

[3] We excluded data from (a) two couples who failed to follow questionnaire instructions and (b) one lesbian couple given that our data analytic strategy involved identifying a male and female partner in each marriage.

[4] We wondered whether narcissists are conducive to their partners' poor psychological health. This notion did not receive substantive empirical support. The partner's dyadic adjustment ($\beta = -.04$, $p < .47$), relationship commitment ($\beta = 02$, $p < .76$), relationship satisfaction ($\beta = -.03$, $p < .67$), and, in part, subjective well-being (SWLS: $\beta = .09$, $p < .22$) were unaffected. Only the partner's subjective well-being, as assessed by the Campbell, Converse, and Rodgers

(1976) scale ($\beta = -.19$, $p < .05$), was influenced negatively by the narcissistic companion. In all, a narcissist is not dangerous to the partner's health.

[5] The substantive picture does not change whether or not levels of linearity are assessed within or across studies. Further details are available from the authors on request.

[6] In Study 3, scores were analyzed individually, without regard to couple status. However, because no significant correlations emerged between members of the same couples on indices of interest ($r_{RSI} = .07$, $p < .57$; $r_{NPI} = .13$, $p < .26$; $r_{SWLS} = .20$, $p < .08$) the assumption of independence of observations appears tenable.

[7] The two measures of RSI data obtained in Study 5 were averaged to provide a single measure.

[8] Preliminary analyses revealed considerable homogeneity across all five studies in the to-be-aggregated indices. First, the standard deviations of each index were highly comparable across all five studies. Second, the means for each index were highly comparable across Studies 1 through 4 (conducted in the United States), though they differed somewhat for Study 5 (conducted in the United Kingdom). In particular, on the basis of Tukey's HSD at $p < .05$, Study 5 participants were significantly lower in self-esteem, narcissism, and subjective well-being (but not significantly higher in loneliness) than were participants from the other studies. Nonetheless, these differences were not considered sufficient to offset the informational advantage gained by including Study 5 participants in the aggregate analyses, especially given the comparable levels of dispersion across samples.

[9] To estimate the quadratic relation between a predictor and criterion above and beyond any linear relation between them it is common practice to center the predictor scores, manually compute their products, and then regress the criterion scores on both the centered predictor scores and their products. The centering eliminates any collinearity between the linear and quadratic terms attributable to the metric in which they were originally scaled (Cohen, Cohen, West, & Aiken, 2003). However, the *skew* of the underlying distribution of predictor scores remains a potent source of collinearity. Specifically, unless the predictor scores are symmetrically distributed, their skew will inflate the size of the correlation between them and their products. Consequently, the partial coefficients estimated in a polynomial regression

will vary depending on the skew of the original predictor scores, and potentially in complex ways (for example, if suppression occurs). One awkward consequence is that the partial regression coefficients estimated when the roles of predictor and criterion variables are reversed will tend to differ more than they otherwise would, leading to the uncomfortably contradictory conclusion that a quadratic relation between two variables, above and above any linear relation, both does and does not exist, depending on how one looks at it. For example, in our largest aggregate dataset ($n = 604$), if NPI scores are regressed on centered RSI scores and their products, then the quadratic beta is not significant ($\beta = .02$, $t = .51$, $p < .61$), whereas if the centered RSI scores and their products are regressed on the NPI scores and their products, then the quadratic beta is highly significant ($\beta = -.16$, $t = -4.5$, $p < .0001$).

Given that many of our target variables were highly skewed (most people have high self-esteem, are not depressed, etc.), we opted for a collinearity-reducing strategy that yielded the most parsimonious result. Specifically, we nonlinearly transformed our variables to reduce their skew to zero (by selecting the precise power function for the purpose; see McClelland, 2000; Mosteller & Tukey, 1977) and then linearly transformed them (to z-scores) in order to center their scores and equalize their highly discrepant variances. Only then did we compute a set of products for each set of predictor scores. Now the predictors and their products were fully orthogonal, making their zero-order correlations with the criterion exactly equal to the beta weights computed by regressing the criterion onto those predictors and products. Hence, both the linear and quadratic coefficients we computed, whether construed as correlations or betas, represent wholly independent components of the relation between the variables. They are thus susceptible of direct comparison.

[10] That the quadratic coefficients are unequal in *absolute magnitude* when the predictor and criterion are switched (one would expected the sign of the quadratic term to *reverse* for limited curves) reflects the fact that the product scores are skewed due to residual idiosyncrasies in the parent distribution of predictor scores. Because the skew of the product scores varies depending on the idiosyncrasies of the predictor, and skew moderates the magnitude of linear correlations, the correlations of the product scores will also depend on the idiosyncrasies of the predictor. Although the skew of the product scores could be

eliminated through transformation, this would in turn be liable to create the very correlation between the predictor scores that our analytic strategy attempted to remove.

[11] Exploratory analyses confirmed that the same pattern was observed for all subscales of the NPI, albeit in an attenuated form. Details are available from the authors.

Table 1

Correlation Coefficients Representing the Independent Linear and Quadratic Relations between Self-Esteem and Normal Narcissism in Three Aggregate Datasets Derived from the Five Studies Reported

		Criterion		
Predictor	*Term*	NPI$_1$ ($n = 604$)	NPI$_2$ ($n = 450$)	NPI$_3$ ($n = 302$)
RSI	Linear	.447***	.473***	.339***
	Quadratic	-.107*	-.110	-.088
		Predictor		
Criterion	*Term*	NPI$_1$ ($n = 604$)	NPI$_2$ ($n = 450$)	NPI$_3$ ($n = 302$)
RSI	Linear	.447***	.473***	.339***
	Quadratic	-.084*	-.083*	-.055

Note. RSI = Rosenberg Self-Esteem Inventory; NPI = Narcissistic Personality Inventory. Subscripts indicate different aggregate datasets whose participants overlap. Coefficients represent beta weights from second-order polynomial regression equations in which a single criterion is regressed on a single predictor and its product. Prior to computation of each product, all variables were first nonlinearly transformed to eliminate skew and then z-transformed to eliminate collinearity due to scaling. Results are presented for each variable alternately serving as predictor and criterion. *$p < .05$. **$p < .01$. ***$p < .0001$.

Table 2

Correlation Coefficients Representing the Independent Linear and Quadratic Relations between Self-Esteem and Four Indices of Psychological Health in Three Aggregate Datasets Derived from the Five Studies Reported

		Criterion			
Predictor	Term	SWLS ($n = 604$)	UCLA-LS ($n = 450$)	BDI ($n = 302$)	CES-D ($n = 302$)
RSI	Linear	.558***	-.529***	-.584***	-.585***
	Quadratic	-.089**	.052	.103*	.051

		Predictor			
Criterion	Term	SWLS ($n = 604$)	UCLA-LS ($n = 450$)	BDI ($n = 302$)	CES-D ($n = 302$)
RSI	Linear	.558***	-.529***	-.584***	-.585***
	Quadratic	-.014	-.014	-.099*	-.020

Note. RSI = Rosenberg Self-Esteem Inventory; SWLS = Satisfaction With Life Scale; UCLA-LS = UCLA Loneliness Scale; BDI = Beck Depression Inventory; CES-D = Center for Epidemiological Studies Depression Scale. Coefficients represent beta weights from second-order polynomial regression equations in which a single criterion is regressed on a single predictor and its product. Prior to computation of each product, all variables were first nonlinearly transformed to eliminate skew and then z-transformed to eliminate collinearity due to scaling. Results are presented for each variable alternately serving as predictor and criterion. *$p < .05$. **$p < .01$. ***$p < .0001$.

Table 3

Correlation Coefficients Representing the Independent Linear and Quadratic Relations between Normal Narcissism and Four Indices of Psychological Health in Three Aggregate Datasets Derived from the Five Studies Reported

		Criterion			
Predictor	*Term*	SWLS (*n* = 604)	UCLA-LS (*n* = 450)	BDI (*n* = 302)	CES-D (*n* = 302)
Linear	NPI	.291***	-323***	-.205***	-.225***
Quadratic	NPI	-.068	-.032	.089	.007

		Predictor			
Criterion	*Term*	SWLS (*n* = 604)	UCLA-LS (*n* = 450)	BDI (*n* = 302)	CES-D (*n* = 302)
Linear	NPI	.291***	-.323***	-.205***	-.225***
Quadratic	NPI	-.019	-.011	-.066	-.044

Note. NPI = Narcissistic Personality Inventory; SWLS = Satisfaction With Life Scale; UCLA-LS = UCLA Loneliness Scale; BDI = Beck Depression Inventory; CES-D = Center for Epidemiological Studies Depression Scale. Coefficients represent beta weights from second-order polynomial regression equations in which a single criterion is regressed on a single predictor and its product. Prior to computation of each product, all variables were first nonlinearly transformed to eliminate skew and then z-transformed to eliminate collinearity due to scaling. Results are presented for each variable alternately serving as predictor and criterion. *p < .05. **p < .01. ***p < .0001.