

Narcissistic Admiration and Rivalry:  
Disentangling the Bright and Dark Sides of Narcissism

Mitja D. Back<sup>1</sup>, Albrecht C. P. Küfner<sup>1</sup>, Michael Dufner<sup>2, 3</sup>, Tanja M. Gerlach<sup>3, 4</sup>, John F.  
Rauthmann<sup>2</sup>, & Jaap J. A. Denissen<sup>5</sup>

<sup>1</sup> University of Münster, Germany

<sup>2</sup>Humboldt-University Berlin, Germany

<sup>3</sup>International Max Planck Research School LIFE, Berlin, Germany

<sup>4</sup>University of Darmstadt, Germany

<sup>5</sup>Tilburg University, Netherlands

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Please address correspondence to Mitja D. Back, Department of Psychology, University of Münster, Fliednerstr. 21, 48149 Münster, Germany, Phone: +49-251-8334122, Fax: +49-251-8331331, Email: mitja.back@wwu.de

## Abstract

We present a process model that distinguishes two dimensions of narcissism: admiration and rivalry. We propose that narcissists' overarching goal of maintaining a grandiose self is pursued by two separate pathways, characterized by distinct cognitive, affective-motivational, and behavioral processes. In a set of seven studies, we validated this two-dimensional model using the newly developed Narcissistic Admiration and Rivalry Questionnaire (NARQ). We showed that narcissistic admiration and rivalry are positively correlated dimensions, yet they have markedly different nomological networks and distinct intra- and interpersonal consequences. The NARQ showed the hypothesized two-dimensional multifaceted structure as well as very good internal consistencies (Study 1,  $N = 953$ ), stabilities (Study 2,  $N = 93$ ), and self-other agreements (Study 3,  $N = 96$ ). Narcissistic admiration and rivalry showed unique relations to the Narcissistic Personality Inventory (NPI), the Big Five and self-esteem, pathological narcissism, and other narcissism-related traits like Machiavellianism, psychopathy, self-enhancement, and impulsivity (Study 4,  $N_s = 510 - 1,814$ ). Despite the positive relation between admiration and rivalry, the two differentially predicted general interpersonal orientations and reactions to transgressions in friendships and romantic relationships (Study 5,  $N = 1,085$ ), interpersonal perceptions during group interactions (Study 6,  $N = 202$ ), and observed behaviors in experimental observations (Study 7,  $N = 96$ ). For all studies the NARQ outperformed the standard measure of narcissism, the NPI, in predicting outcome measures. Results underscore the utility of a two-dimensional conceptualization and measurement of narcissism.

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## Narcissistic Admiration and Rivalry:

### Disentangling the Bright and Dark Sides of Narcissism

Narcissism is one of the most enigmatic constructs in academic psychology. Just as narcissists<sup>1</sup> tend to fascinate their social partners in ambiguous ways, researchers are often left intriguingly puzzled when trying to understand the characteristics and dynamics of narcissism. Narcissism seems to be related to contradictory processes and consequences: Narcissists' charisma and self-assuredness can give them tremendous energy that fascinates others, yet their aggressiveness and lack of empathy hinder their progress and turn many people off. From the origins of the concept of narcissism in Greek mythology, to psychoanalytic theories (Freud, 1914/1990; Kernberg, 1980; Kohut, 1977), to conceptualizations in modern clinical (Cain, Pincus, & Ansell, 2008; Miller, Widiger, & Campbell, 2010; Pincus & Lukowitsky, 2010) and social/personality psychology (Campbell & Campbell, 2009; Morf & Rhodewalt, 2001), narcissists have been described as struggling with paradoxical intra- and interpersonal processes. Here, we argue that many of the most persistent paradoxes about narcissism can be resolved by disentangling two distinct but positively related trait dimensions: narcissistic admiration and rivalry. This differentiated view promises a better understanding of narcissism and its wide-ranging consequences. In the following, we will give an overview of the current state of research on narcissism, outline a process model of narcissistic admiration and rivalry, and demonstrate its validity using a newly developed questionnaire.

#### **Prior Research on the Processes, Correlates, and Consequences of Narcissism**

Before we turn to our overview of prior research on narcissism, let us emphasize that throughout the paper, our descriptions and analyses focus on *grandiose narcissism*, the characteristic form of narcissism as a personality trait in the general population (i.e., normal narcissism). We do not address *vulnerable narcissism*, which is additionally crucial when

investigating pathological forms of narcissism (i.e., narcissistic personality disorders; Cain et al., 2008; Miller & Campbell, 2008; Miller, Hoffman, et al., 2011; Pincus et al., 2009). Therefore, whenever we speak of narcissism, we are referring to grandiose narcissism.

Much of the confusion around narcissism seems reflected in the heterogeneity of its defining cognitive, affective-motivational, and behavioral processes. These processes involve a grandiose view of the self, a strong sense of entitlement and superiority, a lack of empathy, a need for social admiration, as well as tendencies to show dominant, charming, bragging, impulsive, and aggressive behaviors (Campbell & Campbell, 2009; Miller, Hoffman, et al., 2011; Morf & Rhodewalt, 2001; Vazire & Funder, 2006). Accordingly, prior research reveals a complex mix of correlates (Ackerman et al., 2011; Brown, Budzek, & Tamborski, 2009; Miller, Hoffman, et al., 2011), including traits such as extraversion, self-esteem, need for power, and dominance, but also disagreeableness, aggressiveness, low need for intimacy, and hostility (Brown & Zeigler-Hill, 2004; Carroll, 1987; Emmons, 1984, 1987; Jakobwitz & Egan, 2006; Rhodewalt & Morf, 1995; Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). With regard to interpersonal behaviors, narcissism is related to charming, self-assured, and humorous behaviors (Back, Schmukle, & Egloff, 2010; Paulhus, 1998), but also to selfish, hostile, and arrogant behaviors (Bushman & Baumeister, 1998; Buss & Chiodo, 1991; Colvin, Block, & Funder, 1995; Paulhus, 1998). This pattern is also reflected in the divergent interpersonal effects of narcissism. Narcissism is related to popularity at zero and short-term acquaintance (Back et al., 2010; Oltmanns, Friedman, Fiedler, & Turkheimer, 2004; Paulhus, 1998), success in dating (Holtzman & Strube, 2010; Rhodewalt & Eddings, 2002), as well as leadership and celebrity status (Brunell et al., 2008; Young & Pinsky, 2006). It is, however, also related to negative evaluations at long-term acquaintance (Blair, Hoffman, & Helland, 2008; Paulhus, 1998) and conflict in romantic relationships (Buss & Shackelford, 1997; Campbell & Foster, 2002; Campbell, Foster, & Finkel, 2002).

Existing process models of narcissism explain such paradoxical patterns by complex self-regulatory processes (Campbell & Campbell, 2009; Morf & Rhodewalt, 2001). In their dynamic self-regulatory processing model, Morf and Rhodewalt (2001; Morf, Torchetti, & Schürch, 2011) conceptualize narcissism as a consequence of dynamically related affective and cognitive intrapersonal processes and interpersonal strategies to gain and maintain favorable self-views (see also Campbell & Campbell, 2009; Campbell & Green, 2008; Sedikides, Campbell, Reeder, Elliot, & Gregg, 2002). According to this model, narcissists are characterized by a grandiose but vulnerable self-concept that causes them to continuously search for external admiration. In addition, they are thought to be chronically insensitive to others' concerns and to hold rather negative views of others. As a result, their efforts to be admired are often not successful because their egocentric behaviors "lead to rejection and interpersonal failure in the long run" (Morf & Rhodewalt, 2001; p. 187). Importantly, the dynamic self-regulatory processing model and other existing process models share their conceptualization of narcissism as a unidimensional construct.

Here, we will present evidence that two separate pathways can be distinguished in terms of the overall pattern of narcissistic processes, correlates, and consequences: one that is due to *assertive* orientations (e.g., social potency based on a grandiose self and charming self-assured behaviors), and another that is based on *antagonistic* orientations (e.g., social conflict based on devaluation of others and hostile aggressive behaviors). A variety of related ideas have been articulated by different researchers. For example, Kernberg (1975) already differentiated between well-functioning narcissists who are apt at presenting themselves to reinforce their grandiosity and malignant narcissists whose paranoid tendencies lead to aggressive and antisocial behavior. Recently, Brown and colleagues (2009) reinstated this idea by emphasizing the important role of two specific core aspects of narcissism: an adaptive intrapersonal aspect (grandiosity) and a maladaptive interpersonal aspect (entitlement).

Another related differentiation is indicated when looking at trait correlates of narcissism: Narcissism is positively related to Extraversion and Agency (“getting ahead”) but negatively related to Agreeableness and Communion (“getting along”) (Bradlee & Emmons, 1992; Hogan & Kaiser, 2005; Miller et al., 2009; Miller & Maples, 2011; Paulhus, 2001; Ruiz, Smith, & Rhodewalt, 2001; Wiggins & Pincus, 1994). The extraverted/entic part of this distinction has most consistently been incorporated into the agency model of narcissism (Campbell, Brunell, & Finkel, 2006; Campbell & Foster, 2007; Campbell & Green, 2008), which insightfully describes “narcissistic esteem” (a positive feeling related to dominance and pride) as the result of mutually reinforcing entic elements: an entic narcissistic core (e.g., placing value on getting ahead, approach orientation, inflated view of the self), entic interpersonal skills (e.g., confidence, charmingness), and a variety of entic intra- and interpersonal strategies (e.g., self-serving biases, using relationship partners as “trophies”, self-promotion). However, the agency model does not incorporate disagreeable/antagonistic aspects of narcissism, such as devaluation of others and aggressive behaviors, which lead to negative peer evaluations at long-term acquaintance and conflict in close relationships (Ackerman et al., 2011; Colvin, Block, & Funder, 1995; Paulhus, 1998).

A recent study by K ufner, Nestler, and Back (in press) found more direct empirical evidence for the proposed differentiation of assertive and antagonistic narcissistic aspects: Narcissism’s ambiguous effects on popularity could be understood as the result of two opposing pathways - a positive pathway via assertive behaviors leading to popularity and a negative pathway via antagonistic behaviors leading to unpopularity. Taken together, prior research and theory thus point toward assertive and antagonistic aspects of narcissism. An integration of the two sides into a coherent process model of narcissism has, however, not yet been formulated.

### **A New Two-Dimensional Conceptualization and Process Model of Narcissism:**

#### **The Narcissistic Admiration and Rivalry Concept (NARC)**

We present a new process model of narcissism that distinguishes two positively related but distinct dimensions of narcissism: *admiration* and *rivalry*. The Narcissistic Admiration and Rivalry Concept (NARC; see Figure 1) is based on the idea that the narcissist's overarching goal to maintain a grandiose self can be achieved by two separate social strategies: the tendency to approach social admiration by means of self-promotion (*assertive self-enhancement*) and the tendency to prevent social failure by means of self-defense (*antagonistic self-protection*). These two strategies are conceptualized as activating distinct affective-motivational, cognitive, and behavioral pathways: admiration and rivalry. NARC proposes that people differ strongly not only in their general tendency to inhabit and maintain an overall grandiose self, but also in the ease and strength with which they do this by activating narcissistic self-enhancement and self-protection, respectively. As both strategies serve the common goal of maintaining a grandiose self, individual differences in admiration and rivalry should be positively related to each other. However, due to the distinct dynamics triggered by each of the narcissistic strategies, they are far from interchangeable.

The NARC moves beyond prior process models of narcissism (e.g., Campbell & Campbell, 2009; Morf & Rhodewalt, 2001) by sorting the multitude of narcissistic self-regulatory processes into two coherent and distinguishable sets of processes. The NARC also differs from Brown's (2009) approach in three important ways. First, it incorporates a broader range of narcissistic aspects, including cognitive facets such as grandiosity and entitlement but also capturing relevant affective-motivational and behavioral facets. Second, the NARC disentangles the differentiation of (a) intra- and interpersonal and (b) assertive and antagonistic aspects, which are combined in Brown's approach (i.e., grandiosity as the intrapersonal and entitlement as the interpersonal aspect of narcissism). According to the NARC, both admiration (as the assertive aspect) and rivalry (as the antagonistic aspect) include intra- as well as interpersonal processes. Third, the NARC moves beyond the description of separate aspects of narcissism to the meaningful implementation of these

aspects within a coherent process model which outlines the motivational determinants, ongoing processes and social consequences of admiration and rivalry.

### **Underlying Motivational Dynamics**

Self-enhancement and self-protection are general principles of personality and social psychology: People are motivated to enhance the positivity of their self-views (self-enhancement) and to defend themselves against negative self-views (self-protection; Alicke & Sedikides, 2009, 2011; Higgins, 1998). Both motives serve the overall goals of creating and maintaining a positive self. For narcissists, this overall goal is, however, somewhat different: Their overarching goal is to create and maintain a grandiose self instead of just a moderately positive self (Horvath & Morf, 2010; Morf & Rhodewalt, 2001; Sedikides et al., 2002). As a consequence of the narcissist's exaggerated egotism ("I am grandiose!"), we propose that both central strategies take on an exaggerated flavor. In particular, we hypothesize that narcissistic self-enhancement is a strategy that is accompanied by a promising hope for greatness ("the rise of a star"; cf. Wallace & Baumeister, 2002), which can be summarized by the slogan "Let others admire you!"<sup>2</sup>. Importantly, this strategy does not only aim at feeling good about oneself (having a high self-esteem) but at repeatedly reinstating one's grandiose self by feeling admired and "special". In order to promote an admired self, extraordinary self-regulatory enhancement efforts that are energized by a strategy for *assertive self-enhancement* are necessary.

In a similar way, we argue that narcissistic self-protection is highly antagonistic, accompanied by a frightening fear for failure ("the hero's fall") and illustrated by the imperative "Don't let others tear you down!". Strong self-regulatory protection efforts are needed to defend a grandiose self from (real and imagined) attacks by others, fueled by a strategy for *antagonistic self-protection*. Although the underlying motivational dynamics of narcissism are better understood for self-enhancement than for self-protection (Morf, Horvath, et al., 2011), we propose that both



strategies play a crucial role in explaining the intra- and interpersonal dynamics of narcissism. This line of reasoning was recently supported by a study by Hepper, Gramzow, and Sedikides (2010), who showed that narcissism is related to self-enhancement and self-protection strategies. According to the NARC, narcissistic self-protection triggers not only passive intrapersonal reactions such as the devaluation of others but also active social reactions such as revenge. These antagonistic behaviors after actual or imagined failures and ego threats can be highly active reactions, and might, thus, be labeled as “offensive” by outside perceivers (particularly in the absence of any objective social threat). We do, however, propose that these “offensive” reactions are in the service of self-defense, and are, thus, better termed self-protective than self-enhancing; they originate from the motivation to protect the self from losing its grandiosity. Both strategies, assertive self-enhancement and antagonistic self-protection, are thought to be chronically activated due to the narcissists’ grandiose self and can additionally be prompted by situational cues (e.g., getting-acquainted situations as a chance for social admiration; negative feedback indicating a risk of social failure).

Our conceptualization of narcissistic self-enhancement and self-promotion corresponds to Morf, Horvarth, and Torchetti’s (2011) insightful description of narcissists’ characteristic self-regulatory strategies, which states that “for narcissists, the typical self-signatures are: ‘IF opportunity for promotion or demonstration of the grandiose and superior self, THEN self-affirm, self-promote, and self-enhance!’ as well as: ‘IF threat to own grandiosity and superiority, THEN strike back!’” (p. 402).<sup>3</sup>

### **Behavioral Dynamics and Social Interaction Outcomes**

Assertive self-enhancement is thought to activate a set of behavioral dynamics that we term *Narcissistic Admiration*. This dimension consists of three intertwined narcissistic domains: *striving for uniqueness* (affective-motivational), *grandiose fantasies* (cognitive), and *charmingness*

(behavioral). The activation of narcissistic self-enhancement results in the optimistic pursuit of one's uniqueness and thoughts about one's own grandiosity. Both intrapersonal mechanisms trigger self-assured, dominant, and expressive behaviors (charmingness), which may result in desired social outcomes such as social status, success, praise, being chosen as a leader, extracting social resources, attractiveness, and evoking social interest (social potency). The perception of these positive social consequences, in turn, reinforces the actual grandiose self, which strengthens both the striving for uniqueness and the engagement in charming behaviors.

Antagonistic self-protection is thought to activate a different set of behavioral dynamics that we term *Narcissistic Rivalry*. This dimension consists of *striving for supremacy* (affective-motivational), *devaluation of others* (cognitive), and *aggressiveness* (behavioral). The activation of narcissistic self-protection results in a motivation to reinstate and defend one's own superior status, in particular, when compared to perceived social rivals. Also, narcissists' insensitive and devaluing thoughts about others become salient. This state of mind leads to annoyed, hostile, and socially insensitive behaviors (aggressiveness), which entail largely negative social outcomes such as rejection, relationship transgressions, unpopularity, criticism, and a lack of trust from others (social conflict; also see Brandts, Riedl, & van Winden, 2009). The perception of these negative outcomes strengthens the negative view of the generalized other, thereby intensifying the intention to prevail over one's rivals and boosting aggressive behaviors.

The "social benefits" of admiration should be most prevalent at short-term acquaintance, where expressive and dominant self-presentations are most effective. In contrast, the "social costs" of rivalry may have to be paid particularly at long-term acquaintance, where insensitive and aggressive social reactions are least adequate (see Campbell & Campbell, 2009). Both kinds of social interaction outcomes (social potency and social conflict), are thought to feed back into the motivational dynamics underlying narcissistic admiration and rivalry. First, positive social

interaction outcomes (e.g., praise) are thought to be accompanied by an ego boost, which directly reinforces the self-enhancement strategy (“They admire you: Go on self-promoting!”; cf. Baumeister & Vohs, 2001), whereas negative social interaction outcomes (e.g., criticism) should be perceived as an ego threat, strengthening the self-protection strategy (“They try to tear you down: Go on defending yourself!”; cf. Bushman & Baumeister, 1998). Second, the self-perception of social interaction outcomes should be accompanied by a subjective monitoring of the correspondence between the desired self (grandiose) and the actually perceived self. This monitoring process can result in a perceived fit (e.g., the perception that one is admired) or in a perceived misfit (e.g., the perception that one has not received the respect that one deserves) and accompanying positive or negative emotions (e.g., pride or shame; Tracy & Robins, 2004), strengthening the further needs of both narcissistic self-enhancement and self-protection strategies, respectively.

### **Research Overview**

In the present research, we applied the NARC, and tested its validity. We expected narcissistic admiration and rivalry to be positively related but to have largely different nomological networks and distinct intra- and interpersonal consequences. With regard to personality trait correlates, admiration was expected to be related to extraversion and assertive narcissism measures such as Leadership/Authority and grandiosity. Rivalry, on the other hand, was expected to be related to disagreeableness, neuroticism, and antagonistic characteristics such as Exploitativeness/Entitlement, impulsivity, and trait anger. Rivalry was also expected to show stronger relations to uniquely pathological aspects of narcissism such as vulnerability. Markedly different correlations were also expected for intrapersonal outcomes: Admiration was expected to be related to stronger self-esteem and self-enhancement, and more assertive self-perceptions, whereas rivalry was expected to correlate with negative self-perceptions and maladaptive

intrapersonal orientations. Finally, admiration and rivalry were expected to have distinct effects on interpersonal outcomes. Admiration was expected to manifest in assertive social behaviors and indicators of social potency, particularly in short-term acquaintance contexts. By contrast, rivalry was expected to be related to antagonistic interpersonal orientations as well as to negative perceptions of and behaviors toward others. This pattern should ultimately result in indicators of social conflict, particularly in long-term relationships. In a set of seven studies, we tested these hypotheses.

### **Study 1: Measurement, Structure, and Reliability of Narcissistic Admiration and Rivalry**

For the assessment of the hypothesized dimensions and facets of narcissism, we were not able to rely on existing measures. The most widely used questionnaire, the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979) was not an appropriate candidate for several reasons (see Brown et al., 2009; Brown & Tamborski, 2011; Tamborski & Brown, 2011). First, it is based on a historically motivated collection of items that are unrelated to current conceptualizations of narcissism. As a consequence, many of the narcissistic aspects outlined in the NARC do not show up in the NPI. Second, the two main aspects of narcissism are not equally represented by the NPI: Most items tap only the assertive, dominant, and grandiose aspects of narcissism and only a few capture the antagonistic, aggressive, and exploitative aspects of narcissism. Third, the NPI was constructed as a unidimensional measure of narcissism; thus attempts to create facet measures have resulted in unstable solutions (i.e., various two-, three-, four-, or seven-factor models coexist in the literature; e.g., Ackerman et al., 2011; Corry, Merritt, Mrug, & Pamp, 2008; Emmons, 1984, 1987; Kubarych, Deary, & Austin, 2004; Raskin & Terry, 1988; Rauthmann, 2011). Fourth, the two NPI facet measures most often applied (in different variants)—, Leadership/Authority (L/A) and Exploitativeness/Entitlement (E/E)— are restricted to narrow aspects of dominating other and assigning leadership-roles to oneself (L/A) and feeling entitled and manipulating others (E/E).

Thus, they miss many of the crucial narcissistic elements outlined in the NARC. Fifth, the reliability of NPI facet measures is usually unacceptably low.

Variants of the NPI and alternative measures of normal narcissism do not differentiate between distinct narcissistic dimensions (e.g., Ames, Rose, & Anderson, 2006; Jonason & Webster, 2010) or cover specific facets of narcissism (Brown et al., 2009; Campbell, Bonacci, Shelton, Exline, & Bushman, 2004; Rosenthal, Hooley, & Steshenko, 2007). Thus, in Study 1, we developed a new measure that corresponds to the NARC: the Narcissistic Admiration and Rivalry Questionnaire (NARQ). Based on a large online sample, we tested the hypothesized multifaceted two-dimensional structure and the internal consistencies of admiration and rivalry.

## **Method**

**Item creation and selection.** For item creation and selection, our focus was on a good content coverage of the theoretically defined narcissism dimensions (admiration and rivalry) and facets (striving for uniqueness, grandiose fantasies, charmingness, and striving for supremacy, devaluation, and aggressiveness). In addition, to allow for individual differences to emerge, we aimed to capture relevant narcissistic content on a level that is “easy” enough, thereby preventing items with extreme item difficulties (which would lead to floor effects). As a case in point, as aggressive behaviors have a very low base rate and a very low social desirability, we opted to assess narcissistic aggressiveness by asking for rather mild aggressive reactions and/or internal precursors of aggressive behavior (e.g. annoyance, irritation) instead of asking for open and strong aggressive reactions. To create a large item pool, each of the current six authors developed a series of items for each of the six narcissism facet domains, which were afterwards selected and/or optimized by means of multiple rounds of collective item improvements using an online spreadsheet. The remaining 30 items (15 admiration and 15 rivalry items) were rated by each author for content coverage. In addition, to ensure acceptable homogeneity of the resulting scales, two exploratory

factor analyses were performed separately for all admiration and rivalry items based on a pretest sample of 158 participants. The scree plots indicated one factor solutions with Eigenvalues of 6.25 and 6.19, respectively (explained variance = 41.66% and 41.26%). Nonredundant items with the highest ratings for content coverage and acceptable factor loadings (above .50) were then retained for the final 18-item version of the NARQ (see Table 1 for the NARQ-Items of the English version).<sup>4</sup> All NARQ items are administered on 6-point Likert scales ranging from “1 = not agree at all” to “6 = agree completely”.

**Participants and procedure.** A total of 953 German-speaking Internet users (683 women) with a mean age of 27.2 years ( $SD = 8.2$ , range: 18-73) completed an online survey consisting of the NARQ items. As an incentive, participants took part in a lottery for 6 x 50 Euro.

## Results and Discussion

We tested the structure of the NARQ according to the NARC in a confirmatory factor analysis. The model consisted of two correlated second-order latent variables (Admiration and Rivalry), both consisting of three first-order latent variables, representing the six subscales, with Grandiosity, Striving for Uniqueness, Charmingness, Devaluation of Others, Striving for Supremacy, and Aggressiveness having three indicators each (see Figure 2). Given the large sample size, the  $\chi^2$  statistic was significant,  $\chi^2 = 416.632$ ,  $df = 128$ ,  $p < .001$ . Other fit indices were good, CFI = .95, RMSEA = .049, SRMR = .046. Factor loadings were satisfactory and in full accordance with the NARC (see Figure 2; the corresponding covariance matrix can be obtained from the first author). Descriptive statistics and item-total correlations for each item are summarized in Table 1.

Internal consistencies were satisfactory for the overall score, the admiration and rivalry dimensions, and the three-item facet measures (see Table 2 for descriptive statistics, internal consistencies, and intercorrelations for all measures). We compiled a brief version of the NARQ based on the single items with the strongest factor loadings on each facet (indicated by an asterisk

in Table 1). Internal consistencies of the Brief NARQ were also satisfactory for the six-item overall measure ( $\alpha = .74$ ) as well as for the three-item admiration ( $\alpha = .76$ ) and rivalry ( $\alpha = .61$ ) measures. In sum, Study 1 provided evidence for the psychometric quality of an instrument that was designed to tap into the hypothesized theoretical structure of narcissism. The NARQ allows users to reliably measure narcissistic admiration and rivalry as outlined in the NARC: as two positively related but distinguishable multifaceted dimensions.

### **Study 2: Stability**

Temporal consistency (stability) is an important prerequisite to meet in order to demonstrate that individual characteristics are traits. Although admiration and rivalry processes are subject to environmental influences that can fluctuate across situations and time, we expected some stability as both behavioral pathways are thought to originate from stable self-enhancement and self-protection strategies. Thus, we expected admiration and rivalry to show a relatively high rank-order consistency over time.

### **Method**

Ninety-three psychology students attending the Johannes Gutenberg University of Mainz (78 female) with a mean age of 23.84 years ( $SD = 5.74$ , range: 16-53) filled out a paper-and-pencil form of the NARQ at two time points at an interval of exactly 5 weeks. Both assessments took place during curricular lectures on personality psychology. Upon request, participants were provided written feedback regarding their individual scores.

### **Results and Discussion**

In line with our hypothesis, corresponding NARQ measures were strongly correlated across time points. Stabilities approached .80 for the overall score and the admiration and rivalry dimensions, and averaged .71 for facet measures (ranging from .62 for devaluation to .79 for striving for supremacy).<sup>5</sup> Thus, people indeed reported stable individual differences in how much

they hold extremely positive opinions about themselves, want to be a special person, and engage in charming behaviors (admiration) as well as in how much they devalue others, want others to be inferior, and engage in aggressive behaviors (rivalry). The fact that self-reported admiration and rivalry are substantially stable across time provides additional evidence for the NARC, according to which stable individual differences in self-promotion and self-defense strategies constantly trigger differences in admiration and rivalry processes, which perpetuate as feedback loops, thereby contributing to a stable self-concept.

### **Study 3: Self-Other Agreement**

In a next step, we aimed to examine whether admiration and rivalry can be conceptualized as a social “reality” that is at least somewhat shared by outside perceivers. If people differ in the daily naturalistic narcissistic processes they typically show (Holtzman, Vazire, & Mehl, 2010), this should translate into narcissistic reputations (Kolar, Funder, & Colvin, 1996; Vazire & Mehl, 2008), that is, the degree to which people are perceived as high on admiration and rivalry by others. This should be particularly true for acquaintances who have observed a target’s actions in a variety of different situations (Biesanz, West, & Millevoi, 2007; Borkebau, Mauer, Riemann, Spinath, & Angleitner, 2004; Funder & Colvin, 1988). The few prior studies that have investigated the agreement of self-ratings of narcissism and ratings of close acquaintances have yielded moderate correlations ranging from .12 to .63 (average  $r = .29$ ) (Carlson, Vazire, & Furr, 2011; Carlson, Vazire, & Oltmanns, 2011). Similar modest self-peer correlations were found regarding personality pathology components related to narcissism (Histrionic/Narcissistic personality disorder; Oltmanns & Lawton, 2011; Thomas, Turkheimer, & Oltmanns, 2003). Accordingly, we expect modest self-peer correlations for the two dimensions of the NARC as well.

### **Method**



One hundred six participants, recruited via the Internet, campus advertisements, and email lists, filled out an online version of the NARQ. Additionally, they were requested to nominate a close acquaintance such as a friend or family member who would be able to report on their personality and to provide the acquaintance's email address. The acquaintance automatically received an email with a link to a third-party version of the NARQ. Acquaintance reports were missing for 10 participants. The final sample, thus, consisted of 96 participants (68 female) with a mean age of 29.82 ( $SD = 7.90$ , range: 18-57). Acquaintances were 49 females and 47 males who had a mean age of 31.41 ( $SD = 10.36$ , range: 17-63 years).

## Results and Discussion

As a prerequisite for subsequent analyses, we first checked the internal consistencies of the NARQ acquaintance reports. Reliabilities were very good for the overall score ( $\alpha = .80$ ), the admiration dimension ( $\alpha = .84$ ), the rivalry dimension ( $\alpha = .80$ ), and their facets (mean  $\alpha = .73$ ). As can be seen in Table 2, self- and acquaintance scores were significantly correlated for all measures but the aggressiveness facet. This shows that self-reported individual differences in admiration and rivalry are at least somewhat shared by outside perceivers. Overall, self-other agreement for narcissism amounted to  $r = .44$ , which is remarkably similar to prior results on the convergence of self- and peer-reported personality in general (i.e., for the Big Five; Connolly, Kavanagh, & Viswesvaran, 2007; Kenny, 1994).

Self-other agreement was somewhat lower for narcissistic rivalry than for narcissistic admiration, albeit only marginally significant,  $Z=1.92$ ,  $p=.054$ . This pattern might be explained by a stronger evaluativeness (e.g., "Others are worth nothing") and a lower observability of this trait (i.e., many social situations do not allow for the free expression of individual differences in anger and aggressiveness), both of which are known to limit the amount of self-other agreement (Connelly & Ones, 2010; Funder & Dobroth, 1987; John & Robins, 1993; Vazire, 2010).

### **Study 4: Nomological Network**

After having shown that admiration and rivalry follow the hypothesized two-dimensional structure with good reliability and satisfactory self-other agreement, we wanted to explore the nomological network of both narcissism dimensions. In doing so, we concentrated on four trait-domains relevant to narcissism research. First, we analyzed the overlap between admiration and rivalry with the most frequently used measure of narcissism, the NPI (Raskin & Hall, 1979), including the most consistently identified NPI facets (Ackerman et al., 2011; Emmons, 1984, 1987): *Leadership/Authority* (L/A; enjoying being a leader and being seen as an authority), and *Exploitativeness/Entitlement* (E/E; interpersonal manipulation, expectation of favors from others, exploitation of others). Second, we wanted to analyze the relations of admiration and rivalry to broad personality dimensions, specifically, the Big Five (e.g., Miller & Maples, 2011). Third, we wanted to investigate the link between narcissism and self-esteem as one important intrapersonal adjustment indicator (Bosson & Weaver, 2011; Sedikides et al., 2004). Finally, fourth, we wanted to explore how admiration and rivalry relate to other measures conceptually related to narcissism including pathological narcissism (Miller, Hoffman, et al., 2011), entitlement and grandiosity (Brown et al., 2009), measures related to a lack of self-control (impulsivity, anger; Miller et al., 2009; Vazire & Funder, 2006), the two other traits of the “Dark Triad” (Machiavellianism, Psychopathy; Paulhus & Williams, 2002), and enhancing self-evaluations (Wallace, 2011).

### **Method and Analytic Strategy**

Study 4 relied on four independent samples (validation samples A-D; see Table 3 for sample statistics and assessment of criterion measures). In each sample, participants were German-speaking Internet users who completed an online survey. The total sample size amounted to  $N = 1,776$  (1,331 women) for the NPI ( $N = 1,545$  for NPI-facets, 1,140 women),  $N = 1,814$  (1,359 women) for the Big Five,  $N = 922$  (675 women) for self-esteem, and  $N = 510$  (371 women) for the other narcissism-

related traits. If analyses were based on different samples, we standardized all relevant measures within samples prior to analyses.

A stepwise analytic strategy was applied to determine the unique nomological network associations for admiration and rivalry. First, we calculated zero-order correlations between both NARQ measures and each criterion measure. Wherever it was indicated, we additionally tested whether correlations with criterion measures differed significantly for admiration versus rivalry (using Fisher's Z-test). Second, given that admiration and rivalry were positively correlated, we performed a series of multiple regressions to establish each measures unique relations with predicted criteria. Each criterion measure was simultaneously regressed on both NARQ dimensions; standardized regression weights and multiple correlations were calculated. Third, we wanted to perform a systematic head-to-head comparison between the two NARQ dimensions and NPI measures regarding their ability to predict other narcissism-related traits. Therefore, we ran a series of stepwise multiple regressions. In a first set of analyses the NPI was entered first, and in a second set of analyses the two NARQ dimensions were entered first. The amount of additionally explained variance in the second step of these analyses allowed us to determine (a) whether admiration and rivalry add to the NPI in explaining the nomological network of narcissism, and (b) whether they outperform the NPI regarding this incremental validity. Fourth, related to the former set of analyses, we used commonality analyses (Nimon, Lewis, Kane, & Haynes, 2008) to disentangle the amount of variance that is attributable to both kinds of measures (common variance) from explained variance unique to the NPI, and explained variance unique to the NARQ dimensions. All comparisons between the two NARQ dimensions and the NPI were performed with the NPI total score as well as with the most recent and psychometrically optimized version of the NPI's L/A and E/E facets (Ackerman et al., 2011).

## **Results and Discussion**

**NPI.** Correlations between admiration and rivalry and the NPI measures are shown in Table 4.<sup>6</sup> Admiration had a stronger relation to the Leadership/Authority facet than rivalry,  $Z = 10.43$ ,  $p < .01$  for the Ackerman facet and  $Z = 11.06$ ,  $p < .01$  for the Emmons facet, whereas rivalry had a stronger relation to Exploitativeness/Entitlement,  $Z = 8.16$ ,  $p < .01$  and  $Z = 8.27$ ,  $p < .01$ . Admiration also had more pronounced relations with the other facets that were examined, to wit, Self-Absorption/Self-Admiration,  $Z = 12.84$ ,  $p < .01$ , and Superiority/Arrogance,  $Z = 12.33$ ,  $p < .01$ , as well as Grandiose Exhibitionism,  $Z = 10.45$ ,  $p < .01$ . These results suggest that the NARQ and the NPI both capture core features of narcissism but are far from being interchangeable. The NPI has a very strong focus on the assertive aspect of narcissism (Brown et al., 2009). Based on the NARC, the NARQ indeed seems to be a more balanced measure of both the assertive (i.e., admiration) and antagonistic (i.e., rivalry) aspects of narcissism.

**Big Five.** Correlations with the Big Five depended strongly on which narcissism dimension was investigated (see Table 5). Whereas admiration was found to be negatively related to neuroticism and positively to extraversion and openness, rivalry was positively related to neuroticism, and negatively to agreeableness and conscientiousness. The strongest differences between admiration and rivalry were found for extraversion,  $Z = 15.68$ ,  $p < .01$ , and agreeableness,  $Z = 14.62$ ,  $p < .01$ . In line with the NARC, these results suggest that the established characterization of narcissists as “disagreeable extraverts” (Miller & Maples, 2011; Paulhus, 2001) is due to two distinct narcissistic pathways, with one (admiration) being related to extraversion with regard to some of its defining features (e.g., assertive behavior) and the other (rivalry) sharing some of its typical process dynamics with disagreeableness (e.g., anger proneness).

**Self-esteem.** Results were even more distinct when examining self-esteem (see last line of Table 5). Admiration was positively linked to self-esteem, whereas rivalry was negatively related to self-esteem,  $Z = 15.32$ ,  $p < .01$ . This is a remarkable pattern of results because admiration and

rivalry are positively correlated. These results provide further evidence to support the conceptualization of the NARC: Admiration is conceptualized as originating from a self-enhancing strategy, it is characterized by self-praise and assertive actions, and it predicts social potency that comes along with ego boosts. By contrast, rivalry is thought of as being fuelled by a defensive tendency to self-protect, its antagonistic nature leads to social conflict that come along with ego threats.

**Pathological narcissism and other narcissism-related traits.** Whereas both NARQ measures were positively related to pathological grandiosity, rivalry showed a stronger overlap with pathological narcissism as opposed to admiration,  $Z = 5.08, p < .01$ , and this difference was due to there being more pathological vulnerability contained in rivalry,  $Z = 7.41, p < .01$  (see Table 6). This pattern of results is well in line with the NARC. Pathological grandiosity encompasses traits such as dominance, assertiveness, aggressiveness, and grandiosity, which capture assertive aspects central to admiration as well as antagonistic aspects central to rivalry. Pathological vulnerability, in contrast, is characterized by defensiveness, insecurity, and feelings of inadequacy. Overlap with narcissistic rivalry might result as rivalry is thought to be fueled by a defensive strategy and to result in conflict-ridden social outcomes that are accompanied by occasions of ego threat.

Admiration and rivalry were both related to psychological entitlement and grandiosity, showing that they capture these key features of narcissism. The overlap between admiration and grandiosity was particularly strong,  $Z = 11.11, p < .01$ , which is in line with the behavioral dynamics of admiration as outlined in the NARC: The admiration dimension is explicitly targeted toward making the goal of generating, maintaining, and preserving a grandiose self salient. Rivalry was additionally associated with higher impulsivity and trait anger, the association with admiration being considerably lower,  $Z = 4.69, p < .01$  for impulsivity, and  $Z = 9.72, p < .01$  for trait anger. This is interesting as it has been controversially discussed whether negative consequences of

narcissism, such as aggression, can be explained by narcissists' lack of self-control (i.e., their impulsivity; cf. Miller et al., 2009; Vazire & Funder, 2006). It seems that this hypothesis is true for one narcissistic dimension (rivalry) but not the other (admiration).

Regarding the Dark Triad, both narcissistic dimensions were similarly related to psychopathy, but rivalry showed a much stronger association with Machiavellianism,  $Z = 10.98, p < .01$ . This also makes sense from the perspective of the NARC: Whereas Machiavellianism is characterized by behavioral dynamics that partially correspond to those of rivalry (e.g., cold, cynical, and immoral interpersonal attitudes; exploitative and manipulative behaviors; Christie & Geis, 1970; Paulhus & Williams, 2002; Rauthmann, in press), psychopathy shows conceptual overlap with both rivalry (e.g., lack of empathy, antisocial orientations, and negative interpersonal outcomes) and admiration (e.g., low anxiety, stimulation seeking, erratic lifestyles, and a sometimes charming manner; Hare, 1985; Paulhus & Williams, 2002).

Finally, distinct results were revealed for better-than-average self-evaluations: Admiration (but not rivalry) was positively related to generally positive and agentic self-evaluations,  $Z = 10.32, p < .01$ , and  $Z = 8.83, p < .01$ , respectively, whereas rivalry (but not admiration) showed negative associations with communal self-evaluations,  $Z = 10.70, p < .01$ . These results are in line with the processes outlined in the NARC and further illuminate and specify findings concerning narcissists' tendency to self-enhance: The overestimation of generally valued characteristics such as abilities, attractiveness, and sense of humor, and agentic characteristics like dominance, assertiveness, and achievement striving (Dufner et al., 2012; Gabriel, Critelli, & Ee, 1994; Wallace, 2011) seems to be only true for narcissistic admiration. Moreover, the lack of self-enhancement for communal characteristics such as honesty, helpfulness, and empathy (Bosson et al., 2008; Campbell, Rudich, & Sedikides, 2002; Paulhus & John, 1998), even turns into negative self-evaluations for rivalry.

**Summary nomological network.** Admiration and rivalry showed a distinct pattern of associations (see  $r$ 's and  $\beta$ 's in Tables 5 and 6) and were able to explain a substantial amount of variance in a variety of meaningful constructs theoretically related to narcissism (see multiple  $R$ 's in Tables 5 and 6). But did they also add to or even perform better than the standard approach to measuring narcissism, the NPI? In a first set of analyses we compared both NARQ dimensions with the NPI total score as the most common operationalization of narcissism. For each criterion measure, this was done by means of two stepwise multiple regressions. In a first regression the two NARQ dimensions were entered in Step 1 and the NPI total score was entered in Step 2. In a second regression the NPI total score was entered in Step 1 and the two NARQ dimensions were entered in Step 2. In a second set of analyses we compared both NARQ dimensions with the two most prominent NPI facets, L/A and E/E, again by performing two stepwise multiple regressions for each criterion measure (first regression: NARQ dimensions-Step 1; NPI facets-Step 2; second regression: NPI facets-Step 1; NARQ dimensions-Step 2). As indicated by these systematic head-to-head comparisons (see  $\Delta R^2$ 's in Tables 5 and 6), the two NARQ dimensions were superior to the NPI in almost all cases. The amount of additionally explained variance averaged 18.4% for admiration and rivalry and 3.2% for the NPI when applying the NPI overall score, and averaged 14.4% for admiration and rivalry and 3.7% for the NPI when applying the NPI L/A and E/E facet scores. Finally, as depicted in Figures 3 and 4, there was a good share of common predictive variance in the NPI and the NARQ dimensions (averaged across traits: 30.0% when applying the NPI total score and 41.6% when applying NPI facets) but the admiration and rivalry dimensions had far more unique predictive variance (58.7% when applying the NPI total score and 45.2% when applying NPI facets) than the NPI (11.3% when applying the NPI total score and 13.2% when applying NPI facets).

Altogether, the nomological networks of admiration and rivalry revealed so far are well in line with the predictions of our NARC. These nomological networks underscore a common narcissistic core, yet also indicate the distinct natures of admiration and rivalry. Specifically, people high in admiration are characterized by an assertive and expressive manner (extraverted, open to new experiences) and a self-assured state of mind (high self-esteem, low neuroticism, agentic self-enhancement). By contrast, people high in rivalry can be best described by antagonistic orientations and habits including impulsivity and anger-proneness, the tendency to manipulate and exploit others, and not valuing communal characteristics. Moreover, and speaking in favor of the proposed self-regulatory dynamics and social consequences related to rivalry, the results also point to a certain vulnerability and emotional instability unique to narcissistic rivalry. This is, for example, indicated by its correlations with neuroticism, lack of self-esteem, and pathological vulnerability. Overall, people with high scores on rivalry do not seem to be very successful in sticking to their overarching goal of a grandiose self (cf. failed narcissists; Campbell, 2001).

### **Study 5: Conflict in Close Relationships**

Close relationships are those areas of life where narcissists are least successful and where their social partners have the highest costs and the lowest benefits (Brown et al., 2009; Brunell & Campbell, 2011; Campbell & Campbell, 2009; Carroll, 1987; Morf & Rhodewalt, 1993; Neumann & Bierhoff, 2004). Based on our process model, behavioral dynamics that characterize rivalry such as the devaluation of others, strive for supremacy, and aggressive reactions should be most detrimental in the context of close relationships that necessitate mutual respect, equality and warmth. Therefore, we tested the idea that the negative consequences of narcissism for close relationships are primarily due to rivalry.

In doing so, we investigated several criterion measures which are (a) important determinants or indicators of close relationship conflict, (b) have been shown to be affected by narcissism, and



(c) should be specifically predicted by the antagonistic characteristics of narcissistic rivalry: lack of empathy, trust, forgiveness, and gratitude (Campbell et al., 2004; Exline, Baumeister, Bushman, Campbell, & Finkel, 2004), and reactions to close relationship transgressions (Brown, 2004; Eaton, Struthers, & Santelli, 2006; McCullough, Emmons, Kilpatrick, & Mooney, 2003). According to the NARC these dysfunctional interpersonal orientations and close relationship outcomes should be related to rivalry but not admiration.

### **Method and Analytic Strategy**

Study 5 relied on two samples (validation samples C and D; see Table 3 for sample statistics and assessment of criterion measures). In each sample, participants were German-speaking Internet users. Participants of Sample D were in a romantic relationship. Regarding general interpersonal orientations the total sample size amounted to  $N = 854$  (637 women). In addition, we assessed participants' reactions in the face of transgressions from friends (Sample C), and romantic partners (Sample D) respectively. In Sample C, participants were confronted with one of three close relationship scenarios in which a good friend was said to have treated him/her badly (Transgression 1: publicly disclosed a personal detail of participant; Transgression 2: talked badly about participant to someone else; Transgression 3: gave away a carefully chosen gift). Participants then reported on how far they would react with revenge (three items,  $\alpha = .90$ ; e.g., "I would do something to pay her back for what s/he did") and direct problem-focused behavior (three items,  $\alpha = .78$ ; e.g., "I would ask her/him why exactly s/he behaved like this") with regard to the friend. In Sample D, participants were asked to report on a recent partner transgression, that is, an occasion in which their romantic partner had violated the rules of the relationship, and to indicate how much they reacted with revenge (6 items,  $\alpha = .83$ ; e.g., "I wanted to teach her/him a lesson for her/his behavior"), and direct problem-focused behaviors (two items,  $\alpha = .61$ ; e.g., "I took her/him to task regarding the reasons for her/his behavior") with regard to the romantic partner. The total sample

size for direct problem-focused and revenge reactions amounted to  $N = 1,085$  (828 women). If analyses were based on different samples, we standardized measures within samples prior to analyses. To determine the unique predictive validity of both narcissistic dimensions, we applied the same stepwise analytical strategy as described for Study 4.

## Results and Discussion

Whereas admiration had negligible effects, rivalry consistently showed a predictive pattern unfavorable for the maintenance of close relationships (see  $r$ 's and  $\beta$ 's in Table 7). Rivalry was negatively associated to empathy, trust, forgiveness and gratitude. As expected, people high in rivalry also showed more revenge-oriented and less direct problem-focused reactions in the face of relationship transgressions, whereas admiration was less related to revenge,  $Z = 7.09, p < .01$ , and even positively related to direct problem-focused reactions,  $Z = 7.78, p < .01$ .<sup>7</sup> Also speaking in favor of the NARC, admiration and rivalry outperformed the NPI in predicting interpersonal orientations and close relationship conflict indicators (mean  $\Delta R^2$ 's amounted to 14% for the NARQ and 0.3% for the NPI, when applying the NPI overall score, and averaged 9% for the NARQ and 2.5% for the NPI, when applying NPI facets). Across both sets of criterion measures the NARQ again explained far more unique predictive variance (87.8% when applying the NPI total score and 51.4% when applying NPI facets) than the NPI (1.7% when applying the NPI total score and 16.0% when applying NPI facets; see Figures 3 and 4).

These results support the NARCs assumption that negative effects of narcissism on close relationships can be attributed to the rivalry dimension. Rivalry should reflect an antagonistic self-protection strategy, which fosters striving for supremacy over, devaluation of, and aggressive behaviors toward others. Moreover, inevitable conflicts in close relationships are thought to constitute a major ego threat for people high in rivalry, which should reinforce their antagonistic self-defensive behavioral dynamics and undermine more forgiving and modest reactions.

### **Study 6: Interpersonal Perceptions in Group Discussions**

In Study 6, we investigated the effects of admiration and rivalry on actual social interactions (Back, Baumert, et al., 2011). Group discussions at short-term acquaintance are well-suited to test many of the distinct behavioral processes hypothesized by the NARC in a real-life context: Given the possibility of being admired by others and inhabiting a dominant position as well as receiving negative feedback and being outperformed by others, this context allows both the assertive self-promotional strategy underlying narcissistic admiration and the antagonistic self-defensive strategy underlying narcissistic rivalry to be triggered (see Küfner et al., in press). Three domains of effects that are implied in the NARC will be analyzed. First, it will be tested whether the positive and agentic self-concept related to admiration and the uncommunal self-concept related to rivalry translate into corresponding actual self-perceptions while interacting with others. Second, we focus on how narcissists are perceived by others. Whereas, close relationship contexts make the antagonistic nature of people high in rivalry most salient and thus reveal its negative social consequences (social conflict; see Study 5), short-term acquaintance contexts should particularly trigger the expressive and self-assured manner of people high in admiration and thus reveal some of the positive social consequences of admiration (social potency). In addition, it will be explored whether perceivers already grasp the aggressive nature of rivalry at short-term acquaintance. Third, by examining people's general perceptions of others during social interactions, it is possible to test the NARC's assertion that rivalry (but not admiration) is related to a tendency to devalue others.

In sum, it will be analyzed, whether admiration and rivalry indeed relate differently to (a) how people perceive themselves, (b) how they are perceived by others, and (c) how they perceive others during actual social interactions (cf. Back, Schmukle, & Egloff, 2011; Carlson, Vazire, & Oltmanns, 2011; Rauthmann, 2012).

### **Method**

**Participants and procedure.** Students attending the Johannes Gutenberg University of Mainz ( $N = 212$ ) participated in 46 same-sex groups (16 male groups, 30 female groups) of four to six participants (mean group size = 4.61). Prior to the actual experiment, they filled out an online questionnaire including the NARQ and the NPI. Upon arrival, participants were randomly assigned to seats in a semi-circle. One after another, they were asked to introduce themselves briefly (“Tell something about you, what you study, what your hobbies are, and so on”). Thereafter, they engaged in a group discussion that was likely to evoke differing opinions (see Robins & Beer, 2001).<sup>8</sup> In the middle and immediately after the discussion, participants rated every other group member (round-robin design; Back & Kenny, 2010; Kenny, Kashy, & Cook, 2006). Ten participants did not provide personality data, so the final sample consisted of 202 students (128 female) with a mean age of 22.43 years ( $SD = 3.10$ , range: 18-36 years).

**Interpersonal perception measures.** Interpersonal perceptions of narcissism (“This person is narcissistic, thinks s/he is something special”), assertiveness (“This person is assertive”), sociability (“This person is outgoing, sociable”), aggressiveness (“This person is aggressive”), trustworthiness (“This person is trustworthy”), attractiveness (“This person is physically attractive”), competence (“This person is competent”), and likeability (“I find this person likeable”) were assessed on 6-point Likert-type scales (1 = *not at all* to 6 = *very much*). Based on these ratings, self, target, and perceiver effects (Kenny, 1994; Schönbrodt, Back, & Schmukle, 2012) were computed and analyzed. These effects were then aggregated across the two measurement occasions for each measure. To account for the nesting of participants within discussion groups, we controlled for group membership (dummy-coded) throughout subsequent analyses.<sup>9</sup>

## Results and Discussion

**Perceiving oneself.** Results for self-perceptions (see Table 8) provide an important differentiation of prior findings: Self-perceptions of assertiveness, sociability, attractiveness,

competence and likeability were unique to admiration,  $Z_s > 2.28, p < .05$ , whereas perceiving oneself as aggressive was unique to rivalry,  $Z = 3.73, p < .01$ . Thus, as hypothesized by the NARC's self-related process dynamics, perceiving oneself as high on agency, performance, and attractiveness (Ames & Kammrath, 2004; Campbell, Rudich, et al., 2002; Dufner et al., 2012; Gabriel et al., 1994) was typical of those high in admiration, whereas antagonistic self-perceptions (Carlson, Vazire, & Oltmanns, 2011) were reflective of rivalry. Importantly, both dimensions predicted the self-perception of being narcissistic, indicating that (a) narcissists seem to have at least some insight into their narcissistic characteristics and (b) that both admiration and rivalry are inherent components of people's naïve understanding of narcissism.

**Being perceived.** Target effects for narcissism judgments (being seen as narcissistic) were related to both narcissistic dimensions. This confirms prior research that has demonstrated accurate perceptions of narcissism in controlled experimental settings (Back, Schmukle, & Egloff, 2008; Buffardi & Campbell, 2008; Friedman, Oltmanns, & Turkheimer, 2007; Holtzman, 2011; Vazire, Naumann, Rentfrow, & Gosling, 2008), even after brief group interactions. Importantly, it also shows that both admiration and rivalry contribute to narcissistic reputations.

In addition, outside perceivers were also sensitive to observable differences between narcissistic dimensions: People high in admiration were seen as assertive, sociable, attractive and competent, whereas people high in rivalry were seen as less trustworthy and were rather disliked ( $Z_s > 2.58, p < .01$ , except for attractiveness:  $Z = 1.49, ns$ ). Interestingly, both admiration and rivalry were related to being seen as aggressive. These differentiated effects support the hypothesized differences regarding behavioral tendencies (charmingness vs. aggressiveness), and social outcomes (status and influence vs. unpopularity and conflict) as outlined in the NARC.

**Perceiving others.** To analyze how narcissism dimensions are related to the overall positivity of interpersonal perceptions (see Back, Schmukle, et al., 2011; Wood, Harms, & Vazire,

2010), we extracted a single positivity factor based on all eight aggregated perceiver effects using a principal component analysis (eigenvalue: 4.34, explained variance: 54.25%). Subsequently, we correlated factor scores with narcissistic admiration and rivalry. In line with the NARC, rivalry predicted negative perceptions of others,  $r = -.17, p < .05$ , whereas admiration was unrelated to the positivity of perceiver effects,  $r = .05, ns, Z = 2.44, p < .05$ . This underlines the NARC's assertion that rivalry but not admiration might be responsible for narcissists' tendency to derogate (Morf & Rhodewalt, 1993; South, Oltmanns, & Turkheimer, 2003) and negatively evaluate (Wood et al., 2010) others. When turning to more specific perceiver effects (Srivastava, Guglielmo, & Beer, 2010), both narcissistic dimensions were associated with perceiving others as narcissistic, indicating a general narcissistic projection bias (Hoch, 1987). Interestingly, there were also specific perceiver effects: People high on rivalry perceived others as more aggressive and less trustworthy, whereas people high on admiration perceived others as more attractive,  $Zs > 2.41, p < .05$ .

**Summary interpersonal perceptions.** In sum, admiration and rivalry uniquely predicted self-perceptions, reputations and other-perceptions during face-to face group interactions (see  $r$ 's,  $\beta$ 's, and multiple  $R$ 's in Tables 8-10). The NARQ was again more effective than the NPI in predicting these outcomes (mean  $\Delta R^2$ 's amounted to 5.8% for the NARQ and 1.3% for the NPI, when applying the NPI overall score, and averaged 6.0% for the NARQ and 1.4% for the NPI, when applying NPI facets). Finally, across perception measures and components the NARQ contributed more unique predictive variance (54.9% when applying the NPI total score and 56.3% when applying NPI facets) than the NPI (10.4% when applying the NPI total score and 11.4% when applying NPI facets; see Figures 3 and 4). These results confirm the NARC's conceptualization of admiration and rivalry in an actual social interaction context: Whereas people high in admiration had generally positive and agentic self-perceptions, were seen as assertive, sociable, attractive and competent, and even perceived others as more attractive, people high in admiration had

uncommunal self-perceptions, were rather disliked, seen as aggressive and less trustworthy, and had a tendency to devalue others. Moreover, admiration and rivalry contributed to perceiving oneself, being perceived and perceiving others as narcissistic – underscoring the importance of both narcissistic dimensions to understand the social reality of narcissism.

### **Study 7: Prediction of Observed Social Behaviors**

In a final study, we wanted to catch a first glimpse of the actual behaviors (Back & Egloff, 2009; Baumeister, Vohs, & Funder, 2007; Furr, 2009) related to admiration and rivalry. Although theoretical models describe narcissism in behavioral terms, typical behavioral acts have only very seldom been examined by direct observation. In a rare exception, Colvin, Block, and Funder (1995) looked at the effects of self-enhancement on behavior in opposite-sex dyad conversations and found self-enhancement to be related, for example, to high enthusiasm and energy level, expressing hostility, and a lack of sympathy toward the partner. Similarly, in group interactions, narcissism as measured by the NPI predicted confident, dominant, expressive, and entertaining behaviors, as well as arrogant, hostile, combative, and less warm behaviors (Küfner et al., in press; Paulhus, 1998). When confronted with an ego threat (e.g., negative feedback), narcissists have been found to react with aggressive behavior, at least in controlled experimental settings (Bushman & Baumeister, 1998; Jones & Paulhus, 2010; Miller et al., 2009; Twenge & Campbell, 2003). When self-introducing in front of one's fellow students at zero acquaintance, narcissism predicted more self-assured and charming behaviors (Back et al., 2010). Recently, Holtzman, Vazire, and Mehl (2010) used the Electronically Activated Recorder to obtain naturalistic behaviors from participants' everyday lives. Narcissism predicted extraverted and disagreeable acts.

According to the NARC, these narcissistic behaviors can be sorted in those representing assertive strategies (admiration) and those representing antagonistic strategies (rivalry). The series of studies we have presented so far already provides strong evidence for the proposed distinct

behavioral dynamics: Admiration and rivalry were related differently to behavioral traits, interpersonal orientations with clear behavioral consequences, behaviorally based self-perceptions, self-reported conflict behavior, as well as to interpersonal reputations after social interactions that are necessarily based on the perception of distinct behavioral cues. If the description of behavioral processes in the NARC is correct, however, we should be able to identify behavioral differences between admiration and rivalry on an even more direct level, that is, by systematic behavioral observation. In our final study, we therefore examined whether the behavioral processes triggered by the assertive versus antagonistic strategies of narcissistic admiration and rivalry, respectively, can already be identified by direct behavioral observations. In line with the NARC, we expected that admiration would predict agentic behaviors (e.g., self-assuredness, activity level) and that rivalry would predict a lack of communal behaviors (e.g., less warmth and friendliness).

## **Method**

**Participants and procedure.** Ninety-six students attending the Humboldt University Berlin (48 women) with a mean age of 25.29 years ( $SD = 7.35$ , range: 18-54) participated in individual experimental sessions in exchange for course credit or monetary compensation. After filling out a questionnaire (including the NARQ and NPI), participants were asked to sit down in front of the camera, and a total of three videos were recorded for each participant (cf. Borkeanu & Liebler, 1992, for a similar approach). For the first speaking task, participants just had to briefly introduce themselves. The second task consisted of reading aloud a standardized weather forecast. In the third task, participants were asked to act as if applying for a scholarship (details can be obtained from the first author). All speaking tasks lasted 25 sec.

**Behavioral measures.** Videos were edited to obtain (a) full videos (audio and visual), (b) silent videos, (c) auditory tapes, and (d) transcripts of spoken words for each target on each speaking task. For each file, two independent and trained observers (three for auditory files) then



assessed behavioral indicators by 8-point Likert-type rating scales and by counting circumscribed behaviors, respectively. Assessed agentic behaviors included the self-assuredness of one's verbal content (transcript, Speaking Tasks 1 and 3 only), voice (audio tape), and facial expression (silent video, focus on face; 1 = *unsure* to 8 = *self-assured*), the amount of expressive gestures (silent video, focus on body; 1 = *a few gestures* to 8 = *many gestures*), as well as the overall expressed activity (full video; 1 = *reserved* to 8 = *dynamically expressive*) and intellectual engagement (full video; Speaking Tasks 1 and 3 only; 1 = *shows no engagement* to 8 = *shows great engagement*). Communal behaviors comprised the emotional warmth of voice (audio tape; 1 = *cold* to 8 = *warm*), authentic smiling (silent video, focus on face; absolute number), as well as the overall expressed warmth (full video; 1 = *emotionally cold* to 8 = *emotionally warm*), and femininity (full video; 1 = *stereotypically masculine* to 8 = *stereotypically feminine*). Each behavioral indicator was averaged across raters and tasks (mean  $\alpha = .70$ ). Scores for agentic ( $\alpha = .65$ ), and communal behavior ( $\alpha = .63$ ) were then computed by aggregating across the respective  $z$ -standardized averaged indicators.

## Results and Discussion

As expected, admiration uniquely predicted agentic behaviors, and rivalry uniquely predicted (a lack of) communal behaviors (see  $r$ 's, and  $\beta$ 's in Table 11). The strength of behavioral prediction (multiple  $R^2$ 's) matches prior studies on the prediction of actual behaviors (Back, Schmukle, et al., 2009; Funder, Furr, & Colvin, 2000; Vazire & Carlson, 2010). The NARQ also was a stronger predictor of actual behavior than the NPI (mean  $\Delta R^2$ 's for behavioral aggregates amounted to 9.00% for the NARQ and 1.50% for the NPI, when applying the NPI overall score, and averaged 14.00% for the NARQ and 3.00% for the NPI, when applying NPI facets) and contributed more unique predictive variance (57.6% when applying the NPI total score and 74.2% when applying NPI facets) than the NPI (8.7% when applying the NPI total score and 15.7% when applying NPI facets; see Figures 3 and 4).

Thus, even when observed during brief individual speaking tasks, the assertive versus antagonistic strategies underlying admiration and rivalry translated into specific observable behaviors. This underlines the validity of the NARC's reconceptualization of narcissism: Two narcissistic dimensions with unique behavioral dynamics that are based on distinct motivational underpinnings and determine largely different social consequences.

### **General Discussion**

Prior research on narcissism has revealed a puzzling mix of results. There seems to be a bright side of narcissism, including aspects such as self-assuredness, charmingness, and interpersonal success, as well as a dark side of narcissism, including antagonistic orientations, aggressiveness, and social conflict. We have proposed a new two-dimensional process model of narcissism—the NARC—that explains the complex dynamics and consequences of narcissism as a consequence of two narcissistic dimensions: admiration and rivalry.

#### **The NARC and Existing Conceptualizations of Narcissism.**

The NARC builds on and incorporates self-regulatory perspectives on narcissism (Campbell & Campbell, 2009; Campbell & Foster, 2007; Morf & Rhodewalt, 2001), which have insightfully described the plethora of dynamic narcissistic processes including their consequences, feedback loops, and contextual moderators. In contrast to prior process models that did not differentiate between assertive and antagonistic aspects of narcissism (Campbell & Campbell, 2009; Morf & Rhodewalt, 2001) or only incorporated the assertive part of narcissism (Campbell & Foster, 2007), the NARC captures both kinds of processes and sorts them into two coherent and distinct trait aspects: admiration and rivalry. The differentiation of admiration and rivalry was inspired by prior conceptual notions and empirical evidence of assertive versus antagonistic aspects of narcissism (Kernberg, 1975; Miller et al., 2009; Paulhus, 2001), with the most recent one being Brown's emphasis on grandiosity and entitlement (Brown et al., 2009). To understand the motivational

underpinnings and behavioral pathways of admiration and rivalry, the NARC also integrates insights from the self-enhancement and self-protection literatures (Alicke & Sedikides, 2009, 2011; Higgins, 1998).

### **Structure, Correlates, and Consequences of Narcissistic Admiration and Rivalry**

**Two narcissistic trait dimensions.** Confirmatory factor analyses of the NARQ revealed the multifaceted two-dimensional structure hypothesized by the NARC. Moreover, fulfilling the basic requirement for any trait dimension, admiration and rivalry could be measured in a reliable way, both in terms of internal consistency and stability. For both narcissistic dimensions, we found self-other agreements that were as strong as for other traits such as the Big Five, speaking in favor of admiration and rivalry as shared social realities. They both correlate substantially with each other and with other measures of normal and pathological narcissism. Moreover, they both contribute to the lay concept of narcissism: The extents to which people perceive themselves and are perceived as narcissistic. Together, we provided ample evidence that both admiration and rivalry may be crucial to the full understanding of narcissism.

**Different nomological networks.** In addition to their commonalities, admiration and rivalry showed largely different nomological networks, confirming the predictions of the NARC. Regarding the Big Five personality factors, a consistent pattern emerged: Admiration was associated with higher emotional stability, extraversion, and openness to new experiences, and rivalry with lower emotional stability, agreeableness, and conscientiousness. Similar distinct correlates were revealed for other self-concept aspects and general interpersonal orientations. Altogether, the results help to explain the complex mix of correlates found in prior studies. Apparently, some associations are due to the admiration aspect (e.g., extraversion, agentic self-

concept, self-enhancement), while others seem due to the rivalry aspect of narcissism (e.g., disagreeableness, uncommunal self-concept, antagonistic orientations).

**Intrapersonal paradoxes reconsidered.** Distinguishing between admiration and rivalry helps to reconcile two opposing reactions to the moderate positive relation between narcissism and self-esteem typically found in studies that have used the NPI (Brown & Zeigler-Hill, 2004; Rhodewalt & Morf, 1995; Sedikides et al., 2004). Some researchers wonder why the relation is not stronger, given that high self-esteem is conceptualized as a hallmark of narcissism (Bosson & Weaver, 2011). Other researchers, by contrast, have described the correlation between narcissism and self-esteem as a potential confound that artificially produces effects, for example, on psychological health (Rosenthal & Hooley, 2010) while masking other effects, for example, on negative peer evaluations or antisocial behavior (Paulhus, 1998; Paulhus, Robins, Trzesniewski, & Tracy, 2004). Our two-dimensional conceptualization of narcissism shows that admiration and rivalry are related in fundamentally different ways to self-esteem, with admiration showing a positive and rivalry a negative association with self-esteem. This explains why the NPI is moderately positively related to self-esteem: It primarily assesses the assertive aspect of narcissism. However, the NARC might also explain why this relation is not stronger: It states that the overarching narcissistic goal of a grandiose self is intertwined with the strategy of rivalry, which continuously undermines this goal. A differentiated pattern of effects was also revealed for other intrapersonal indicators: Admiration was associated with positive self-evaluations, whereas rivalry was related to pathological vulnerability and a higher impulsivity and anger-proneness (i.e., lower self-control).

**Interpersonal paradoxes reconsidered.** The present studies also shed light on the diverse interpersonal effects of narcissism. As predicted by the NARC, admiration and rivalry had distinct effects on close relationship conflict, interpersonal perceptions during social interactions, and

directly observed behaviors. Admiration predicted assertive behaviors and impressions and indicators of social status during group interactions. Individuals high in admiration also showed a tendency for more direct problem-focused reactions to conflict in close relationships. Rivalry, by contrast, was associated with a lack of communal behaviors, being disliked and devaluing others. In addition, it predicted unforgiving and revenge-oriented reactions to conflict in close relationships.

### **Adaptiveness and the Contextual Reinforcement of Narcissistic Admiration and Rivalry**

The adaptiveness of narcissism and related traits such as self-enhancement is a long-discussed issue (Campbell, 2001; Colvin et al., 1995; Kurt & Paulhus, 2008; Taylor, Lerner, Sherman, Sage, & McDowell, 2003). As one might imagine, there is not a straightforward answer to the adaptiveness question. Specifically, the adaptiveness of narcissism has been found to be moderated by the criterion measure and the situational context. Although there are exceptions, most generally speaking, narcissism is more adaptive intrapersonally than interpersonally and it tends to have more adaptive consequences in short-term as compared to long-term acquaintance contexts (Campbell & Campbell, 2009; Paulhus, 1998).

In the present research, we were able to show that the dimension one considers (admiration vs. rivalry) is another powerful moderator of the (mal-)adaptiveness of narcissism. Admiration is positively related to intrapersonal (e.g., self-esteem, positive self-evaluations) and interpersonal (e.g., being perceived as assertive, sociable, attractive, and competent; direct problem-focused coping with transgressions) adjustment indicators. In addition it is related to traits (emotional stability, extraversion, openness to new experiences) and behaviors (self-assured, expressive, energetic) that are known to have rather positive effects on consequential life outcomes. By contrast, rivalry is related to intrapersonal (e.g., low self-esteem, negative self-evaluations) and interpersonal (e.g., distrust, low empathy, more antagonistic reactions, being perceived and perceiving others as aggressive and less trustworthy) maladjustment as well as to traits

(neuroticism, low agreeableness, low conscientiousness, impulsivity, anger) and behaviors (less warmth and smiling) that are known to be disadvantageous. Thus, when averaging across adaptiveness criteria and relationship contexts, admiration seems to represent the “bright” side of narcissism, whereas rivalry seems to represent its “dark” side.

The unique adaptiveness pattern of admiration and rivalry was qualified by some interesting differences between situational contexts (Campbell & Campbell, 2009). Specifically, rivalry but not admiration was related to characteristics that are particularly adverse in long-term acquaintance contexts (e.g., distrust, lack of warmth) and predicted conflictual reactions in close relationships. Admiration, in turn, was associated with personality aspects that are beneficial in getting-acquainted situations (e.g., extraversion, self-assuredness, positive outlook) and predictive of positive evaluations in short-term acquaintance contexts. Thus, the adaptiveness of narcissism might depend on a combination of the dimension of narcissism and the social context (Back et al., 2010; Küfner et al., 2013). Positive consequences in in zero and short-term acquaintance contexts (e.g., dating; getting to know other freshmen) might be primarily due to admiration, whereas it might be rivalry that causes the negative consequences long-term acquaintance contexts (e.g., romantic relationships, friendships).

The positive association between admiration and rivalry might stress the often tragic nature of narcissists’ lives: Apparently their addiction to the reinforcing properties of having high self-esteem (boosted by admiration) lets them fall into the trap of perceiving the necessity to defend this inflated self-esteem against a hostile social environment (rivalry). The intrinsic interrelatedness of narcissistic admiration and rivalry might also specify the typical developmental course of actions implied by the contextual reinforcement model (Campbell & Campbell, 2009). This process might begin due to admiration, which prompts narcissists to approach new social contexts, where they can thrive and even their social partners sometimes profit. At the same time, due to rivalry, narcissists

will try to avoid long-term relationship contexts, where they and their social partners suffer from relationship conflict. Because social relationships naturally drift from zero and short-term to long-term acquaintance, both narcissistic dimensions (albeit based on different reasons) contribute to the narcissist's tendency to stall this process, for example, by leaving a social context, not accepting commitment rules, or changing relationships.

### **Limitations and Future Research**

In this research, we aimed to develop a comprehensive new understanding of narcissism as a two-dimensional personality construct. This included the proposal of a new process model (the NARC), the development of a new measure to assess narcissistic admiration and rivalry (the NARQ), a test of the reliability and structural validity of these measures, as well as extensive analyses of the nomological networks and the short- and long-term social consequences of both dimensions. Such an endeavor is not without limitations. Although we made use of relatively large representative samples in most studies, with ages ranging from 18 to 65 years, the examination of stability (Study 2) as well as the observation of group interactions (Study 8) and actual behaviors (Study 9) was based on student samples. It will be important to replicate these results in more heterogeneous samples. We also examined only one cultural background (Western Europe). Different patterns of outcomes might result in other cultures with varying degrees of desirability of narcissistic admiration and rivalry. For example, we would expect the assertive style of people high in admiration to have less positive intra- and interpersonal consequences in cultures that put less value on individual gains and assertiveness and more on collectivistic achievements and modesty.

We applied a multimethodological approach including a wide range of broad and specific self-report measures (traits, interpersonal orientations) and contextualized reports regarding conflicts in close relationships. In addition, we assessed peer reports, interpersonal perceptions during group interactions from the self, target, and perceiver perspectives, and sampled a multitude

of directly observed behaviors. Nevertheless, there are some methodological limitations of our studies. With regard to the effects on close relationships, it will be important for future studies to additionally include partner reports of relationship perceptions and behaviors, and moreover, to trace the development of close relationships. This might, for example, include analyses of romantic relationships from dating to mating to relating (Asendorpf, Penke, & Back, 2011), particularly as short-term mating can be considered an important evolutionary niche for narcissists (Holtzman & Strube, 2011; Jonason, Li, Webster, & Schmitt, 2009). Also, including additional correlates of admiration and rivalry such as Big Five facets (Miller, Gaughan, Maples, & Price, 2011), self-conscious emotions such as pride, shame, and guilt (Tracy, Cheng, Martens, & Robins, 2011; Tracy, Cheng, Robins, & Trzesniewski, 2009), and measures of implicit self-esteem (Campbell et al., 2007; Zeigler-Hill, 2006) would be interesting avenues for future research. Future research on narcissistic admiration and rivalry should, moreover, include direct observations of aggressive behaviors (Bushman & Baumeister, 1998; Jones & Paulhus, 2010) and other consequential outcome measures like indicators of health and academic and occupational success.

Finally, although prior research fits nicely into the NARC, and our own findings are all in favor of this model, clearly, more research is needed to further support the specific hypothesized admiration and rivalry processes. Such research will have to include (a) analyses of the processes by which the self-promotional (admiration) and self-defensive (rivalry) strategies are activated, (b) investigations of reciprocal interactions between affective-motivational, cognitive, and behavioral aspects during social interactions, as well as (c) analyses of the proposed feedback loops by which social interaction outcomes reinforce the motivational and behavioral dynamics of admiration and rivalry (see Figure 1). As a case in point, more research is needed to further corroborate our conceptualization of the antagonistic interpersonal reactions related to rivalry as self-defensive. According to the NARC, rivalry is fuelled by a self-protective social strategy. One should, thus, be



able to identify intrapersonal defensive precursors (e.g., feeling threatened) of the observable antagonistic reactions (e.g., aggressiveness) related to rivalry. These process analyses might be performed in longitudinal studies that include experience sampling assessments of admiration- and rivalry-related strivings, cognitions, and directly observed behaviors as well as ongoing observations of social interaction outcomes.

### **The Measurement of Narcissism**

Research on narcissism as a personality trait has relied almost exclusively on the NPI. Despite its indisputable popularity, the impressive amount of evidence for its validity, and the many exciting insights that have been discovered with the help of the NPI (Miller & Campbell, 2011), it has a number of serious problems that have led researchers to question its usefulness and validity (Brown et al., 2009; Brown & Tamborski, 2011; Rosenthal & Hooley, 2010; Rosenthal et al., 2011; Tamborski & Brown, 2011). Despite the ongoing debate about the validity of the NPI and some discrepancy with regard to the evaluation of its usefulness, there seems to be a growing consensus amongst researchers regarding the need for additional alternative measures of narcissism (Brown et al., 2009; Brown & Tamborski, 2011; Miller & Campbell, 2008, 2011; Miller, Maples, & Campbell, 2011). However, Miller and Campbell (2011) also point out that it “will be important for any new measure of grandiose narcissism that might challenge the NPI’s ‘supremacy’ to be as successful in demonstrating such strong construct validity” (p. 150).

In order to test our two-dimensional conceptualization of narcissism, we have developed such a new measure: The Narcissistic Admiration and Rivalry Questionnaire. The NARQ is a brief instrument that allows for the reliable multifaceted assessment of both narcissism dimensions. The NARQ is based on a straightforward theoretical model; shows very good factorial structure, internal consistencies, and stabilities; and demonstrates convergent and discriminant as well as predictive validity above and beyond the NPI. In sum, the NARQ allows for a differentiated, psychometrically

sound, and valid measurement of narcissism. We invite researchers to additionally make use of the NARQ when conducting research on the determinants, process dynamics, and consequences of narcissism.

### **Conclusions**

Narcissism is a puzzling construct because it is related to seemingly unrelated or even contrasting self-regulatory processes, trait characteristics, and interpersonal consequences. Here, we have argued and provided empirical support for the assertion that part of the solution to this puzzle can be achieved by arranging the pieces according to two basic dimensions of narcissism: admiration and rivalry. The present findings show that a distinction between the two promises to improve our understanding of many paradoxes around narcissism, including its structure, underlying motivational dynamics, behavioral processes, trait correlates, interpersonal outcomes, and developmental determinants. It is our hope that by disentangling admiration and rivalry, the research field will profit from looking at narcissism with less ambiguity but with ongoing fascination.

### References

- Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the Narcissistic Personality Inventory really measure? *Assessment, 18*, 67-87.
- Alicke, M. D., & Sedikides, C. (2009). Self-enhancement and self-protection: What they are and what they do. *European Review of Social Psychology, 20*, 1-48.
- Alicke, M. D., & Sedikides, C. (Eds.). (2011). *Handbook of self-enhancement and self-protection*. New York: Guilford.
- Ames, D. R., & Kammrath, L. K. (2004). Mind-reading and metacognition: Narcissism, not actual competence, predicts self-estimated ability. *Journal of Nonverbal Behavior, 28*, 187-209.
- Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism. *Journal of Research in Personality, 40*, 440-450.
- Asendorpf, J. B., Penke, L., & Back, M. D. (2011). From dating to mating and relating: Predictors of initial and long-term outcomes of speed-dating in a community sample. *European Journal of Personality, 25*, 16-30.
- Back, M. D., Baumert, A., Denissen, J. J. A., Hartung, F. M., Penke, L., Schmukle, S. C., Schönbrodt, F. D., Schroder-Abe, M., Vollmann, M., Wagner, J., & Wrzus, C. (2011). PERSOC: A Unified Framework for Understanding the Dynamic Interplay of Personality and Social Relationships. *European Journal of Personality, 25*, 90-107.
- Back, M. D., & Egloff, B. (2009). Yes we can! A plea for direct behavioural observation in personality research. *European Journal of Personality, 23*, 403-405.
- Back, M. D., & Kenny, D. A. (2010). The social relations model: How to understand dyadic processes. *Social and Personality Psychology Compass, 4*, 855-870.
- Back, M. D., Schmukle, S. C., & Egloff, B. (2008). How extraverted is honey.bunny77@hotmail.de? Inferring personality from e-mail addresses. *Journal of Research in Personality, 42*, 1116-1122.
- Back, M. D., Schmukle, S. C., & Egloff, B. (2009). Predicting actual behavior from the explicit and implicit self-concept of personality. *Journal of Personality and Social Psychology, 97*, 533-548.
- Back, M. D., Schmukle, S. C., & Egloff, B. (2010). Why are narcissists so charming at first sight? Decoding the narcissism-popularity link at zero acquaintance. *Journal of Personality and*

*Social Psychology*, 98, 132-145.

- Back, M. D., Schmukle, S. C., & Egloff, B. (2011). A closer look at first sight: Social relations lens model analyses of personality and interpersonal attraction at zero acquaintance. *European Journal of Personality*, 25, 225-238.
- Baumeister, R. F., & Vohs, K. D. (2001). Narcissism as addiction to esteem. *Psychological Inquiry*, 12, 206-210.
- Baumeister, R. F., Vohs, K. D., & Funder, D. C. (2007). Psychology as the science of self-reports and finger movements: Whatever happened to actual behavior? *Perspectives on Psychological Science*, 2, 396-403.
- Biesanz, J. C., West, S. G., & Millevoi, A. (2007). What do you learn about someone over time? The relationship between length of acquaintance and consensus and self-other agreement in judgments of personality. *Journal of Personality and Social Psychology*, 92, 119-135.
- Blair, C. A., Hoffman, B. J., & Helland, K. R. (2008). Narcissism in organizations: A multisource appraisal reflects different perspectives. *Human Performance*, 21, 254-276.
- Borkenau, P., & Liebler, A. (1992). Trait inferences: Sources of validity at zero acquaintance. *Journal of Personality and Social Psychology*, 62, 645-657.
- Borkenau, P., Mauer, N., Riemann, R., Spinath, F. M., & Angleitner, A. (2004). Thin slices of behavior as cues of personality and intelligence. *Journal of Personality and Social Psychology*, 86, 599-614.
- Bosson, J. K., Lakey, C. E., Campbell, W. K., Zeigler-Hill, V., Jordan, C. H., & Kernis, M. H. (2008). Untangling the links between narcissism and self-esteem: A theoretical and empirical review. *Personality and Social Psychology Compass*, 2/3, 1415-1439.
- Bosson, J. K., & Weaver, J. R. (2011). "I love me some me": Examining the links between narcissism and self-esteem. In W. K. Campbell & J. D. Miller (Eds.), *Handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments* (pp. 261-271). Hoboken, NJ: Wiley.
- Bradlee, P. M., & Emmons, R. A. (1992). Locating narcissism within the interpersonal circumplex and the 5-factor model. *Personality and Individual Differences*, 13, 821-830.
- Brandts, J., Riedl, A., & van Winden, F. (2009). Competitive rivalry, social disposition, and subjective well-being: An experiment. *Journal of Public Economics*, 93, 1158-1167.
- Brown, R. P. (2003). Measuring individual differences in the tendency to forgive: Construct validity and links with depression. *Personality and Social Psychology Bulletin*, 29, 759-771.

- Brown, R. P. (2004). Vengeance is mine: Narcissism, vengeance, and the tendency to forgive. *Journal of Research in Personality, 38*, 576-584.
- Brown, R. P., Budzek, K., & Tamborski, M. (2009). On the meaning and measure of narcissism. *Personality and Social Psychology Bulletin, 35*, 951-964.
- Brown, R. P., & Tamborski, M. (2011). Of tails and their dogs: A critical view of the measurement of trait narcissism in social-personality research. In W. K. Campbell & J. D. Miller (Eds.), *Handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments*. Hoboken, NJ: Wiley.
- Brown, R. P., & Zeigler-Hill, V. (2004). Narcissism and the non-equivalence of self-esteem measures: A matter of dominance? *Journal of Research in Personality, 38*, 585-592.
- Brunell, A. B., & Campbell, W. K. (2011). Narcissism and romantic relationships: Understanding the paradox. In W. K. Campbell & J. D. Miller (Eds.), *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments* (pp. 344-350). Hoboken, NJ: Wiley.
- Brunell, A. B., Gentry, W. A., Campbell, W. K., Hoffman, B. J., Kuhnert, K. W., & DeMarree, K. G. (2008). Leader Emergence: The Case of the Narcissistic Leader. *Personality and Social Psychology Bulletin, 34*, 1663-1676.
- Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and social networking web sites. *Personality and Social Psychology Bulletin, 34*, 1303-1314.
- 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.
- Buss, D. M., & Chiodo, L. M. (1991). Narcissistic acts in everyday life. *Journal of Personality, 59*, 179-215.
- Buss, D. M., & Dedden, L. A. (1990). Derogation of competitors. *Journal of Social and Personal Relationships, 7*, 395-422.
- Buss, D. M., & Shackelford, T. K. (1997). Susceptibility to infidelity in the first year of marriage. *Journal of Research in Personality, 31*, 193-221.
- Cain, N. M., Pincus, A. L., & Ansell, E. B. (2008). Narcissism at the crossroads: Phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review, 28*, 638-656.
- Campbell, W. K. (2001). Is narcissism really so bad? *Psychological Inquiry, 12*, 214-216.

- Campbell, W. K., Bonacci, A. M., Shelton, J., Exline, J. J., & Bushman, B. J. (2004). Psychological entitlement: Interpersonal consequences and validation of a self-report measure. *Journal of Personality Assessment, 83*, 29-45.
- Campbell, W. K., Bosson, J. K., Goheen, T. W., Lakey, C. E., & Kernis, M. H. (2007). Do narcissists dislike themselves "deep down inside"? *Psychological Science, 18*, 227-229.
- Campbell, W. K., Brunell, A. B., & Finkel, E. J. (2006). Narcissism, interpersonal self-regulation, and romantic relationships: An agency model approach. In E. J. Finkel & K. D. Vohs (Eds.), *Self and relationships: Connecting intrapersonal and interpersonal processes* (pp. 57-83). New York: Guilford.
- Campbell, W. K., & Campbell, S. M. (2009). On the self-regulatory dynamics created by the peculiar benefits and costs of narcissism: A contextual reinforcement model and examination of leadership. *Self & Identity, 8*, 214-232.
- 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., 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, J. D. (2007). The narcissistic self: Background, an extended agency model, and ongoing controversies. In C. Sedikides & S. Spencer (Eds.), *Frontiers in social psychology: The self* (pp. 115-138). Philadelphia, PA: Psychology Press.
- Campbell, W. K., & Green, J. D. (2008). Narcissism and interpersonal self-regulation. In J. V. Wood, A. Tesser & J. G. Holmes (Eds.), *The self and social relationships* (pp. 74-94). New York: Psychology Press.
- 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.
- Carlson, E. N., Vazire, S., & Furr, R. M. (2011). Meta-Insight: Do people really know how others see them? *Journal of Personality and Social Psychology, 101*, 831-846.
- Carlson, E. N., Vazire, S., & Oltmanns, T. F. (2011). You probably think this paper's about you: Narcissists' perceptions of their personality and reputation. *Journal of Personality and Social Psychology, 101*, 185-201.
- Carroll, L. (1987). A study of narcissism, affiliation, intimacy, and power motives among students

- in business administration. *Psychological Reports*, *61*, 355-358.
- Cheng, J. T., Tracy, J. L., & Henrich, J. (2010). Pride, personality, and the evolutionary foundations of human social status. *Evolution and Human Behavior*, *31*, 334-347.
- Christie, R., & Geis, F. L. (1970). *Studies in Machiavellianism*. New York: Academic Press.
- Colvin, C. R., Block, J., & Funder, D. C. (1995). Overly positive self-evaluations and personality: Negative implications for mental health. *Journal of Personality and Social Psychology*, *68*, 1152-1162.
- Connelly, B. S., & Ones, D. S. (2010). An other perspective on personality: Meta-analytic integration of observers' accuracy and predictive validity. *Psychological Bulletin*, *136*, 1092-1122.
- Connolly, J. J., Kavanagh, E. J., & Viswesvaran, C. (2007). The convergent validity between self and observer ratings of personality: A meta-analytic review. *International Journal of Selection and Assessment*, *15*, 110-117.
- Corry, N., Merritt, R. D., Mrug, S., & Pamp, B. (2008). The factor structure of the Narcissistic Personality Inventory. *Journal of Personality Assessment*, *90*, 593-600.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, *44*, 113-126.
- Dufner, M., Denissen, J. J. A., van Zalk, M., B., M., Meeus, W. H. J., van Aken, M. A. G., & C., S. (2012). Positive intelligence illusions: On the relation between intellectual self-enhancement and psychological adjustment. *Journal of Personality*, *80*, 537-571.
- Eaton, J., Struthers, C. W., & Santelli, A. G. (2006). Dispositional and state forgiveness: The role of self-esteem, need for structure, and narcissism. *Personality and Individual Differences*, *41*, 371-380.
- Emmons, R. A. (1984). Factor analysis and construct validity of the narcissistic personality inventory. *Journal of Personality Assessment*, *48*, 291-300.
- Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology*, *52*, 11-17.
- Exline, J. J., Baumeister, R. F., Bushman, B. J., Campbell, W. K., & Finkel, E. J. (2004). Too proud to let go: Narcissistic entitlement as a barrier to forgiveness. *Journal of Personality and Social Psychology*, *87*, 894-912.
- Freud, S. (1914/1990). Zur Einführung des Narzissmus [On narcissism: An introduction] *Gesammelte Werke* (8 ed.). Frankfurt: S. Fischer.

- Friedman, J. N. W., Oltmanns, T. F., & Turkheimer, E. (2007). Interpersonal perception and personality disorders: Utilization of a thin slice approach. *Journal of Research in Personality, 41*, 667-688.
- Funder, D. C., & Colvin, C. R. (1988). Friends and strangers: Acquaintanceship, agreement, and the accuracy of personality judgment. *Journal of Personality and Social Psychology, 55*, 149-158.
- Funder, D. C., & Dobroth, K. M. (1987). Differences between traits: Properties associated with interjudge agreement. *Journal of Personality and Social Psychology, 52*, 409-418.
- Funder, D. C., Furr, R. M., & Colvin, C. R. (2000). The Riverside Behavioral Q-sort: A tool for the description of social behavior. *Journal of Personality, 68*, 451-489.
- Furr, R. M. (2009). Personality psychology as a truly behavioural science. *European Journal of Personality, 23*, 369-401.
- 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.
- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. G. (2006). The international personality item pool and the future of public-domain personality measures. *Journal of Research in Personality, 40*, 84-96.
- Hare, R. D. (1985). Comparison of procedures for the assessment of psychopathy. *Journal of Consulting and Clinical Psychology, 53*, 7-16.
- Henrich, J., & Gil-White, F. J. (2001). The evolution of prestige: Freely conferred deference as a mechanism for enhancing the benefits of cultural transmission. *Evolution and Human Behavior, 22*, 165-196.
- Hepper, E. G., Gramzow, R. H., & Sedikides, C. (2010). Individual Differences in Self-Enhancement and Self-Protection Strategies: An Integrative Analysis. *Journal of Personality, 78*, 781-814.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 1-46). New York: Academic Press.
- Hoch, S. J. (1987). Perceived consensus and predictive accuracy: The pros and cons of projection. *Journal of Personality and Social Psychology, 53*, 221-234.
- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology, 9*, 169-180.



- Holtzman, N. S. (2011). Facing a psychopath: Detecting the dark triad from emotionally-neutral faces, using prototypes from the Personality Faceaurus. *Journal of Research in Personality, 45*, 648-654.
- Holtzman, N. S., & Strube, M. J. (2010). Narcissism and attractiveness. *Journal of Research in Personality, 44*, 133-136.
- Holtzman, N. S., & Strube, M. J. (2011). The intertwined evolution of narcissism and short-term mating: An emerging hypothesis. In W. K. Campbell & J. D. Miller (Eds.), *The Handbook of Narcissism and Narcissistic Personality Disorder: Theoretical Approaches, Empirical Findings, and Treatments* (pp. 210-220). Hoboken, NJ: Wiley.
- Holtzman, N. S., Vazire, S., & Mehl, M. R. (2010). Sounds like a narcissist: Behavioral manifestations of narcissism in everyday life. *Journal of Research in Personality, 44*, 478-484.
- Horvath, S., & Morf, C. C. (2010). To be grandiose or not to be worthless: Different routes to self-enhancement for narcissism and self-esteem. *Journal of Research in Personality, 44*, 585-592.
- Jakobwitz, S., & Egan, V. (2006). The dark triad and normal personality traits. *Personality and Individual Differences, 40*, 331-339.
- John, O. P., & Robins, R. W. (1993). Determinants of interjudge agreement on personality-traits: The Big Five domains, observability, evaluativeness, and the unique perspective of the self. *Journal of Personality, 61*, 521-551.
- 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.
- Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. P. (2009). The Dark Triad: Facilitating a short-term mating strategy in men. *European Journal of Personality, 23*, 5-18.
- Jonason, P. K., & Webster, G. D. (2010). The dirty dozen: A concise measure of the dark triad. *Psychological Assessment, 22*, 420-432.
- Jones, D. N., & Paulhus, D. L. (2010). Different provocations provoke aggression in psychopaths and narcissists. *Social Psychological and Personality Science, 1*, 12-18.
- Kenny, D. A. (1994). *Interpersonal perception: A social relations analysis*. New York: Guilford.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford.
- Kernberg, O. (1975). *Borderline conditions and pathological narcissism*. New York: Aronson.
- Kernberg, O. (1980). *Internal world and external reality*. New York: Aronson.

- Kohut, H. (1977). *The restoration of the self*. New York: International Universities Press.
- Kolar, D. W., Funder, D. C., & Colvin, C. (1996). Comparing the accuracy of personality judgments by the self and knowledgeable others. *Journal of Personality, 64*, 311-337.
- Kubarych, T. S., Deary, I. J., & Austin, E. J. (2004). The Narcissistic Personality Inventory: Factor structure in a non-clinical sample. *Personality and Individual Differences, 36*, 857-872.
- Küfner, A., Nestler, S., & Back, M. D. (2013). The two pathways to being an (un-)popular narcissist. *Journal of Personality, 81*, 184-195.
- Kurt, A., & Paulhus, D. L. (2008). Moderators of the adaptiveness of self-enhancement: Operationalization, motivational domain, adjustment facet, and evaluator. *Journal of Research in Personality, 42*, 839-853.
- Lang, F. R., John, D., Lüdtke, O., Schupp, J., & Wagner, G. G. (2011). Short assessment of the Big Five: robust across survey methods except telephone interviewing. *Behavior Research Methods, 43*, 548-567.
- McCullough, M. E., Emmons, R. A., Kilpatrick, S. D., & Mooney, C. N. (2003). Narcissists as "victims": The role of narcissism in the perception of transgressions. *Personality and Social Psychology Bulletin, 29*, 885-893.
- McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology, 82*, 112-127.
- Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality, 76*, 449-476.
- Miller, J. D., & Campbell, W. K. (2011). Addressing criticisms of the Narcissistic Personality Inventory (NPI). In W. K. Campbell & J. D. Miller (Eds.), *Handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments*. Hoboken, NJ: Wiley.
- Miller, J. D., Campbell, W. K., Young, D. L., Lakey, C. E., Reidy, D. E., Zeichner, A., & Goodie, A. S. (2009). Examining the Relations Among Narcissism, Impulsivity, and Self-Defeating Behaviors. *Journal of Personality, 77*, 761-794.
- Miller, J. D., Gaughan, E. T., Maples, J., & Price, J. (2011). A comparison of agreeableness scores from the Big Five Inventory and the NEO PI-R: Consequences for the study of narcissism and psychopathy. *Assessment, 18*, 335-339.
- Miller, J. D., Hoffman, B. J., Gaughan, E. T., Gentile, B., Maples, J., & Campbell, W. K. (2011). Grandiose and vulnerable narcissism: A nomological network analysis. *Journal of*

*Personality*, 79, 1013-1042.

- Miller, J. D., & Maples, J. (2011). Trait personality models of narcissistic personality disorder, grandiose narcissism, and vulnerable narcissism. In W. K. Campbell & J. D. Miller (Eds.), *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments* (pp. 71-88). Hoboken, NJ: Wiley.
- Miller, J. D., Widiger, T. A., & Campbell, W. K. (2010). Narcissistic Personality Disorder and the DSM-V. *Journal of Abnormal Psychology*, 119, 640-649.
- Morf, C. C., Horvath, S., & Torchetti, L. (2011). Narcissistic self-enhancement: Tales of (successful?) self-portrayal. In M. D. Alicke & C. Sedikides (Eds.), *Handbook of self-enhancement and self-protection* (pp. 399-424). New York: Guilford.
- 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., Torchetti, L., & Schürch, E. (2011). Narcissism from the perspective of the dynamic self-regulatory processing model. In W. K. Campbell & J. D. Miller (Eds.), *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments* (pp. 56-70). Hoboken, NJ: Wiley.
- Neumann, E., & Bierhoff, H. W. (2004). Egotism versus love in romantic relationships: Narcissism related to attachment and love styles. *Zeitschrift für Sozialpsychologie*, 35, 33-44.
- Nimon, K., Lewis, M., Kane, R. & Haynes, R. M. (2008) An R package to compute commonality coefficients in the multiple regression case: An introduction to the package and a practical example. *Behavior Research Methods*, 40, 457-466.
- Oltmanns, T. F., Friedman, J. N. W., Fiedler, E. R., & Turkheimer, E. (2004). Perceptions of people with personality disorders based on thin slices of behavior. *Journal of Research in Personality*, 38, 216-229.
- Oltmanns, T. F., & Lawton, E. M. (2011). Self-other discrepancies. In W. K. Campbell & J. D. Miller (Eds.), *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments* (pp. 300-308). Hoboken, NJ: Wiley.
- Patton, J. H., Stanford, M. S., & Barratt, E. S. (1995). Factor structure of the Barratt Impulsiveness Scale. *Journal of Clinical Psychology*, 51, 768-774.

- 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., Robins, R. W., Trzesniewski, K. H., & Tracy, J. L. (2004). Two replicable suppressor situations in personality research. *Multivariate Behavioral Research, 39*, 303-328.
- Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality, 36*, 556-563.
- Pelham, B. W., & Swann, J., W. B. (1989). From self-conceptions to self-worth: On the sources and structure of global self-esteem. *Journal of Personality and Social Psychology, 57*, 672-680.
- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A. G. C., & Levy, K. N. (2009). Initial Construction and Validation of the Pathological Narcissism Inventory. *Psychological Assessment, 21*, 365-379.
- Pincus, A. L., & Lukowitsky, M. R. (2010). Pathological Narcissism and Narcissistic Personality Disorder. In S. Nolen-Hoeksema, T. D. Cannon & T. Widiger (Eds.), *Annual Review of Clinical Psychology* (Vol. 6, pp. 421-446).
- Rammstedt, B., & John, O. P. (2005). Short version of the Big Five Inventory (BFI-K): Development and validation of an economic inventory for assessment of the five factors of personality. *Diagnostica, 51*, 195-206.
- Raskin, R., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports, 45*, 590.
- 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.
- Rauthmann, J. F. (2011). Acquisitive or protective self-presentation of dark personalities? Associations among the Dark Triad and self-monitoring. *Personality and Individual Differences, 51*, 502-508.
- Rauthmann, J. F. (2012). The Dark Triad and interpersonal perception: Similarities and differences in the social consequences of narcissism, Machiavellianism, and psychopathy. *Social*

*Psychological and Personality Science*, 3, 487-496

- Rauthmann, J. F. (in press). Towards multifaceted Machiavellianism: Content, factorial, and construct validity of a German Machiavellianism Scale. *Personality and Individual Differences*.
- Rhodewalt, F., & Eddings, S. (2002). Narcissus reflects: Memory distortion in response to ego relevant feedback in high and low narcissistic men. *Journal of Research in Personality*, 36, 97-116.
- Rhodewalt, F., & Morf, C. C. (1995). Self and interpersonal correlates of the Narcissistic Personality Inventory: A review and new findings. *Journal of Research in Personality*, 29, 1-23.
- Robins, R. W., & Beer, J. S. (2001). Positive Illusions about the self: Short-term benefits and long-term costs. *Journal of Personality and Social Psychology*, 80, 340-352.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton Univ. Press.
- Rosenthal, S. A., & Hooley, J. M. (2010). Narcissism assessment in social-personality research: Does the association between narcissism and psychological health result from a confound with self-esteem? *Journal of Research in Personality*, 44, 453-465.
- Rosenthal, S. A., Hooley, J. M., & Steshenko, Y. (2007). *Distinguishing grandiosity from self-esteem: Development of the Narcissistic Grandiosity Scale*. Manuscript in preparation.
- Ruiz, J. M., Smith, T. W., & Rhodewalt, F. (2001). Distinguishing narcissism and hostility: Similarities and differences in interpersonal circumplex and five-factor correlates. *Journal of Personality Assessment*, 76, 537-555.
- Schönbrodt, F. D., Back, M. D., & Schmukle, S. C. (2012). TripleR: An R package for social relations analyses based on round robin designs. *Behavior Research Methods*, 44, 455-470.
- Schröder-Abé, M. (2012). *Agentic and communal self-evaluations*. University of Bamberg: Unpublished manuscript.
- Schütz, A., Marcus, B., & Sellin, I. (2004). Die Messung von Narzissmus als Persönlichkeitskonstrukt: Psychometrische Eigenschaften einer Lang- und einer Kurzform des deutschen NPI. *Diagnostica*, 50, 202-218.
- 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: Erlbaum.

- Sedikides, C., Rudich, E. A., Gregg, A. P., Kumashiro, M., & Rusbult, C. (2004). Are normal narcissists psychologically healthy?: Self-esteem matters. *Journal of Personality and Social Psychology, 87*, 400-416.
- South, S. C., Oltmanns, T. F., & Turkheimer, E. (2003). Personality and the derogation of others: Descriptions based on self- and peer report. *Journal of Research in Personality, 37*, 16-33.
- Spielberger, C. D. (1988). *Manual for the State-Trait Anger Expression Scale (STAX)*. Odessa, FL: Psychological Assessment Resources, Inc. .
- Srivastava, S., Guglielmo, S., & Beer, J. S. (2010). Perceiving others' personalities: Examining the dimensionality, assumed similarity to the self, and stability of perceiver effects. *Journal of Personality and Social Psychology, 98*, 520-534.
- Tamborski, M., & Brown, R. P. (2011). The measurement of trait narcissism in social-personality research. In W. K. Campbell & J. D. Miller (Eds.), *Handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments*. Hoboken, NJ: Wiley.
- Taylor, S. E., Lerner, J. S., Sherman, D. K., Sage, R. M., & McDowell, N. K. (2003). Portrait of the self-enhancer: Well adjusted and well liked or maladjusted and friendless. *Journal of Personality and Social Psychology, 84*, 165-176.
- Thomas, C., Turkheimer, E., & Oltmanns, T. F. (2003). Factorial structure of pathological personality as evaluated by peers. *Journal of Abnormal Psychology, 112*, 81-91.
- Tracy, J. L., Cheng, J. T., Martens, J. P., & Robins, R. W. (2011). The emotional dynamics of narcissism: Inflated by pride, deflated by shame. In W. K. Campbell & J. D. Miller (Eds.), *Handbook of narcissism and narcissistic disorder: Theoretical approaches, empirical findings, and treatments*. Hoboken, NJ: Wiley.
- Tracy, J. L., Cheng, J. T., Robins, R. W., & Trzesniewski, K. H. (2009). Authentic and hubristic pride: The affective core of self-esteem and narcissism. *Self and Identity, 8*, 196-213.
- Tracy, J. L., & Robins, R. W. (2004). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry, 15*, 103-125.
- Twenge, J. M., & Campbell, W. K. (2003). "Isn't it fun to get the respect that we're going to deserve?" - Narcissism, social rejection, and aggression. *Personality and Social Psychology Bulletin, 29*, 261-272.
- Vazire, S. (2010). Who knows what about a person? The self–other knowledge asymmetry (SOKA) model. *Journal of Personality and Social Psychology, 98*, 281-300.

- Vazire, S., & Carlson, E. N. (2010). Self-knowledge of personality: Do people know themselves? *Social and Personality Psychology Compass*, 4, 605-620.
- Vazire, S., & Funder, D. C. (2006). Impulsivity and the self-defeating behavior of narcissists. *Personality and Social Psychology Review*, 10, 154-165.
- Vazire, S., & Mehl, M. R. (2008). Knowing me, knowing you: The accuracy and unique predictive validity of self-ratings and other-ratings of daily behavior. *Journal of Personality and Social Psychology*, 95, 1202-1216.
- Vazire, S., Naumann, L. P., Rentfrow, P. J., & Gosling, S. D. (2008). Portrait of a narcissist: Manifestations of narcissism in physical appearance. *Journal of Research in Personality*, 42, 1439-1447.
- von Collani, G. (2008). Modifizierte deutsche Versionen des Narcissistic Personality Inventory (NPI-d). In A. Glöckner-Rist (Ed.), *Zusammenstellung sozialwissenschaftlicher Items und Skalen*. Version 12.00. Bonn: GESIS.
- Wallace, H. M. (2011). Narcissistic self-enhancement. In W. K. Campbell & J. D. Miller (Eds.), *Handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments*. Hoboken, NJ: Wiley.
- 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.
- 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.
- Wood, D., Harms, P., & Vazire, S. (2010). Perceiver effects as projective tests: What your perceptions of others say about you. *Journal of Personality and Social Psychology*, 99, 174-190.
- Young, S. M., & Pinsky, D. (2006). Narcissism and celebrity. *Journal of Research in Personality*, 40, 463-471.
- Zeigler-Hill, V. (2006). Discrepancies between implicit and explicit self-esteem: Implications for narcissism and self-esteem instability. *Journal of Personality*, 74, 119-143.

<sup>1</sup> As a personality trait, narcissism is continuous. However, for the ease of exposition, we use the term “narcissists” to refer to those with relatively high scores on normal narcissism.

<sup>2</sup> Although we formulated some of the motivational principles in strategic terms, this does not imply that these processes are necessarily applied in a conscious and controlled way. Indeed, some of the processes may be carried out in a fully unconscious and automatic fashion.

<sup>3</sup> Note that similar basic strategies have been described in other domains. Buss and Dedden (1990), for example, describe two strategies to attain superiority in intrasexual mate competition: “...one can manipulate impressions either by elevating oneself or by derogating others” (p. 395). Also see evolution-based models of social status and/or leadership that distinguish between prestige and dominance (Cheng, Tracy, & Henrich, 2010; Henrich & Gil-White, 2001).

<sup>4</sup> German, English, Dutch, Danish, and Chinese versions of the NARQ can be downloaded at [www.persoc.net/Toolbox/NARQ](http://www.persoc.net/Toolbox/NARQ).

<sup>5</sup> Throughout the article, mean correlations and vector correlations were calculated by Fisher’s  $r$  to  $z$  formula.

<sup>6</sup> We report results for the most widely used facet solution by Emmons (1987), as well as the most recently suggested facet solution by Ackerman et al. (2011). Results for other facet solutions can be obtained from the first author.

<sup>7</sup> Note that all effects of admiration and rivalry on general interpersonal orientations as well as on conflict reactions in close relationships hold, when additionally controlling for Neuroticism and Agreeableness.<sup>8</sup> Discussions included a range of topics (e.g., *Donation*: Decide how much money to donate and for which out of five organizations; *Moral dilemma*: Rank characters of a fictitious story regarding their moral character). We did not find any systematic differences due to discussion topic, and therefore performed all analyses across discussion topic.



<sup>9</sup>We decided to partial out group instead of applying multilevel analyses because preliminary analyses suggested that (a) most of the variables did not have enough between-level variability, and (b) none of the effects of admiration and rivalry on criterion measures (i.e., slopes) varied at the group level. However, we also estimated multilevel models to account for the nested structure of the data. The results showed that for all our analyses, the pattern of effects of admiration and rivalry was almost identical.

Table 1

*Items of the Narcissistic Admiration and Rivalry Questionnaire (NARQ): Descriptive Statistics and Item-Total Correlations*

Nr.	Item	Scale	Facet	<i>M</i>	<i>SD</i>	<i>r<sub>it</sub></i>	<i>r<sub>it</sub><sup>*</sup></i>
1	I am great.	ADM	Grand	2.98	1.40	.52	.62
2	I will someday be famous.	ADM	Grand	2.11	1.24	.47	.53
8*	I deserve to be seen as a great personality.	ADM	Grand	2.19	1.25	.60	.65
3	I show others how special I am.	ADM	Uniq	2.47	1.29	.65	.64
5	I enjoy my successes very much.	ADM	Uniq	3.79	1.49	.50	.52
15*	Being a very special person gives me a lot of strength.	ADM	Uniq	2.81	1.47	.57	.68
7	Most of the time I am able to draw people's attention to myself in conversations.	ADM	Charm	2.96	1.40	.50	.59
16*	I manage to be the center of attention with my outstanding contributions.	ADM	Charm	2.49	1.29	.64	.68
18	Mostly, I am very adept at dealing with other people.	ADM	Charm	3.17	1.30	.42	.52
13	Most people won't achieve anything.	RIV	Deval	2.15	1.35	.42	.47
14	Other people are worth nothing.	RIV	Deval	1.14	.53	.33	.40
17*	Most people are somehow losers.	RIV	Deval	1.61	1.03	.46	.54
6	I secretly take pleasure in the failure of my rivals.	RIV	Supr	2.67	1.53	.56	.65
9*	I want my rivals to fail.	RIV	Supr	2.48	1.46	.52	.67
10	I enjoy it when another person is inferior to me.	RIV	Supr	2.27	1.34	.50	.65
4*	I react annoyed if another person steals the show from me.	RIV	Aggr	1.85	1.07	.58	.54
11	I often get annoyed when I am criticized.	RIV	Aggr	3.16	1.32	.23	.33
12	I can barely stand it if another person is at the center of events.	RIV	Aggr	1.95	1.08	.50	.52

*Note.*  $N = 953$ . All items were administered on 6-point Likert scales ranging from “1 = not agree at all” to “6=agree completely”. Items included in the brief version of the NARQ are indicated by an asterisk. ADM = NARQ admiration scale, RIV = NARQ rivalry scale, Grand = NARQ grandiosity facet, Uniq = NARQ uniqueness facet, Charm = NARQ charmingness facet, Deval = NARQ devaluation facet, Supr = NARQ supremacy facet, Aggr = NARQ aggressiveness facet.  $r_{it}$  = item-total correlations for NARQ overall score.  $r_{it}^*$  = item-total correlations for NARQ facets.

Table 2

*Descriptive Statistics, Gender Differences, Internal Consistencies, Stabilities, Self-Other Agreements, and Intercorrelations for NARQ*

*Measures*

	<i>M</i>	<i>SD</i>	<i>d</i> <sub>sex</sub>	$\alpha$	<i>r</i> <sub>tt</sub>	<i>r</i> <sub>so</sub>	2	3	4	5	6	7	8	9
1. Narcissism	2.46	.73	<b>.42</b>	.88	<b>.79</b>	<b>.44</b>	<b>.87</b>	<b>.81</b>	<b>.75</b>	<b>.80</b>	<b>.72</b>	<b>.57</b>	<b>.70</b>	<b>.64</b>
2. Admiration	2.77	.94	<b>.28</b>	.87	<b>.79</b>	<b>.51</b>		<b>.86</b>	<b>.88</b>	<b>.84</b>	<b>.43</b>	<b>.30</b>	<b>.35</b>	<b>.36</b>
3. Grandiosity	2.43	1.04	<b>.45</b>	.73	<b>.76</b>	<b>.43</b>			<b>.67</b>	<b>.57</b>	<b>.35</b>	<b>.29</b>	<b>.28</b>	<b>.28</b>
4. Uniqueness	3.02	1.14	<b>.38</b>	.73	<b>.72</b>	<b>.31</b>				<b>.60</b>	<b>.42</b>	<b>.27</b>	<b>.36</b>	<b>.38</b>
5. Charmingness	2.87	1.10	.11	.76	<b>.69</b>	<b>.45</b>					<b>.32</b>	<b>.23</b>	<b>.26</b>	<b>.27</b>
6. Rivalry	2.14	.78	<b>.24</b>	.83	<b>.76</b>	<b>.27</b>						<b>.71</b>	<b>.89</b>	<b>.76</b>
7. Devaluation	1.63	.82	<b>.60</b>	.75	<b>.62</b>	<b>.31</b>							<b>.46</b>	<b>.31</b>
8. Supremacy	2.47	1.25	<b>.39</b>	.83	<b>.79</b>	<b>.30</b>								<b>.52</b>
9. Aggressiveness	2.32	.88	.10	.66	<b>.64</b>	.11								

*Note.*  $N = 93$  (Study 2) for  $r_{tt}$  (test-retest stabilities),  $N = 96$  (Study 3) for  $r_{so}$  (self-other agreements), and  $N = 953$  (Study 1) for all other values.  $d_{sex}$  = Effect size (Cohen's  $d$ ) for gender differences; positive values indicate higher values for men. Bold values are significant ( $p < .05$ , two-tailed).

Table 3

*Overview of Validation Samples.*

Validation sample	N (male/female)	Age-range (M/SD)	Study	Criterion measures
A	219 (160/59)	18-67 (26.31/ 6.84)	S4	Narcissism (NPI), Big Five (BFI-S), Self-esteem (RSES)
B	510 (371/139)	18-72 (27.80/ 9.14)	S4	Narcissism (NPI), Big Five (BFI-S), Self-esteem (RSES), Pathological narcissism (PNI), Entitlement (PES), Grandiosity (NGS), Impulsivity (BIS-11), Anger (STAXI), Machiavellianism (MACH-IV), Psychopathy (SRP-III), Better-than-average ratings (SAQ)
C	854 (637/217)	16-72 (27.55/ 8.83)	S4, S5	Narcissism (NPI), Big Five (BFI-K), Self-esteem, Empathy (EMP), Interpersonal distrust (IDT), Forgiveness (TFS), Gratitude (GQ), Friend conflict reactions
D	231 (191/40)	15-67 (36.00/ 11.15)	S4, S5	Big Five (BFI-S), Narcissism (NPI-d), Romantic relationship conflict reactions
E	202 (128/74)	18-36 (22.34/ 3.10)	S6	Interpersonal perception components during group interactions (self, target, perceiver)
F	96 (48/48)	18-54 (25.29/ 7.35)	S7	Directly observed agentic and communal behavior

*Notes.* NPI = Narcissistic Personality Inventory (Schütz, Marcus, & Sellin, 2004). BFI-S = Big Five Inventory for use in the Socio-economic Panel (Lang, John, Lüdtke, Schupp, & Wagner, 2011). RSES= Rosenberg Self-Esteem Scale (Rosenberg, 1965). PNI = Pathological Narcissism Inventory (Pincus et al., 2009). PES= Psychological Entitlement Scale (Campbell et al., 2004); NGS= Narcissistic Grandiosity Scale (Rosenthal et al., 2007); BIS-11 = Barratt Impulsiveness Scale-11 (Patton, Stanford, & Barratt, 1995); STAXI = trait anger scale of the State-Trait Anger Expression

Inventory (Spielberger, 1988). MACH-IV = Inventory for the measurement of Machiavellianism (Christie & Geis, 1970). SRP-III = Self-Report Psychopathy Scale-III (Hare, 1985). SAQ = Self-Attributes Questionnaire (Pelham & Swann, 1989) for the measurement of general better-than-average self-evaluations, as well as two additional 10-item versions (Schröder-Abé, 2012) for measuring agentic self-evaluations ( $\alpha=.72$ ; e.g., purposefulness, assertiveness, efficiency) and communal self-evaluations ( $\alpha=.76$ ; e.g., honesty, empathy, courtesy). BFI-K = 25-item version of the Big Five Inventory (Rammstedt & John, 2005). EMP = 21-item measure of empathy, capturing the subscales empathic concern, perspective-taking (Davis, 1983), and empathy avoidance (6 items,  $\alpha = .77$ ; e.g., “Sometimes, I really don’t care about others’ fates”). IDT = four items from the 16 Preliminary International Personality Item Pool Scales (Goldberg et al., 2006) for the measurement of interpersonal distrust ( $\alpha = .80$ ; e.g., “I suspect hidden motives in others”). TFS = Tendency to Forgive Scale (Brown, 2003). GQ = Gratitude Questionnaire (McCullough, Emmons, & Tsang, 2002). NPI-d = Brief 17-item version of the NPI (von Collani, 2008).

Table 4

*Correlations between NARQ and NPI Measures (Study 4)*

	NPI total score	Emmons' facets				Ackerman et al's facets		
		L/A	S/S	S/A	E/E	L/A	GE	E/E
Narcissistic Admiration	<b>.63</b>	<b>.44</b>	<b>.51</b>	<b>.45</b>	<b>.34</b>	<b>.47</b>	<b>.46</b>	<b>.26</b>
Narcissistic Rivalry	<b>.32</b>	<b>.13</b>	<b>.17</b>	<b>.11</b>	<b>.55</b>	<b>.19</b>	<b>.18</b>	<b>.47</b>

*Note.*  $N = 1,776$  for the NPI total score, and  $N = 1,545$  for NPI facets. For Emmons (1987): L/A = Leadership/Authority; S/S = Self-Absorption/Self-Admiration; S/A = Superiority/Arrogance; E/E = Exploitativeness/Entitlement. For Ackerman et al. (2011): L/A = Leadership/Authority; GE = Grandiose Exhibitionism; E/E = Entitlement/Exploitativeness. Bold correlations are significant ( $p < .05$ , two-tailed).

Table 5

*Relations to the Big Five and Self-Esteem (Study 4)*

	NARQ		<i>R</i>	NARQ dimensions vs. NPI-total		NARQ dimensions vs. NPI-facets	
	ADM <i>r</i> / $\beta$	RIV <i>r</i> / $\beta$		$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$	$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$
Neuroticism	<b>-.16 / -.25</b>	<b>.19 / .28</b>	<b>.30</b>	<b>.09</b>	<b>.06</b>	<b>.04</b>	<b>.07</b>
Extraversion	<b>.31 / .39</b>	<b>-.11 / -.24</b>	<b>.39</b>	<b>.08</b>	<b>.08</b>	<b>.07</b>	<b>.06</b>
Openness	<b>.25 / .31</b>	<b>-.08 / -.18</b>	<b>.30</b>	<b>.06</b>	<b>.01</b>	<b>.06</b>	<b>.01</b>
Agreeableness	<b>-.04 / .11</b>	<b>-.42 / -.46</b>	<b>.44</b>	<b>.18</b>	<b>.02</b>	<b>.12</b>	<b>.06</b>
Conscientiousness	<b>.08 / .16</b>	<b>-.19 / -.25</b>	<b>.25</b>	<b>.06</b>	<b>.02</b>	<b>.04</b>	<b>.02</b>
Self-esteem	<b>.33 / .49</b>	<b>-.23 / -.42</b>	<b>.51</b>	<b>.18</b>	<b>.05</b>	<b>.15</b>	<b>.05</b>

*Note.*  $N = 1,814$  for the Big Five, and  $N = 922$  for self-esteem. ADM = narcissistic admiration, RIV = narcissistic rivalry.  $\beta$ 's and  $R$ 's refer to standardized regression coefficients, and multiple correlations, respectively when simultaneously regressing each criterion measure on admiration and rivalry.  $\Delta R^2$ 's refer to the amount of additionally explained variance in the second step of stepwise multiple regressions with both NARQ dimensions ( $\Delta R^2_{\text{NARQ}}$ ) or NPI measures ( $\Delta R^2_{\text{NPI}}$ ) entered in the second step. The first two multiple regressions compared admiration and rivalry with the NPI total score, whereas the last two multiple regressions compared admiration and rivalry with the NPI L/A and E/E facets. Bold effects are significant ( $p < .05$ , two-tailed).



Table 6

*Relations to Pathological Narcissism and Other Narcissism-Related Traits (Study 4)*

	NARQ		<i>R</i>	NARQ dimensions vs. NPI-total		NARQ dimensions vs. NPI-facets	
	ADM <i>r</i> / $\beta$	RIV <i>r</i> / $\beta$		$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$	$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$
Pathological Narcissism							
Overall	<b>.39/.19</b>	<b>.60/.52</b>	<b>.62</b>	<b>.35</b>	<b>.01</b>	<b>.23</b>	<b>.02</b>
Grandiosity	<b>.59/.46</b>	<b>.51/.33</b>	<b>.67</b>	<b>.25</b>	.00	<b>.26</b>	.01
Vulnerability	<b>.25/.03</b>	<b>.57/.55</b>	<b>.57</b>	<b>.34</b>	<b>.03</b>	<b>.20</b>	<b>.03</b>
Entitlement	<b>.59/.43</b>	<b>.57/.40</b>	<b>.70</b>	<b>.29</b>	.00	<b>.26</b>	<b>.02</b>
Grandiosity	<b>.73/.72</b>	<b>.31/.03</b>	<b>.73</b>	<b>.16</b>	<b>.03</b>	<b>.26</b>	<b>.04</b>
Impulsivity	.04/-.08	<b>.26/.29</b>	<b>.27</b>	<b>.07</b>	.00	<b>.06</b>	.00
Anger	<b>.16/-.09</b>	<b>.58/.62</b>	<b>.59</b>	<b>.32</b>	.00	<b>.17</b>	<b>.03</b>
Machiavellianism	<b>.17/-.10</b>	<b>.64/.67</b>	<b>.64</b>	<b>.36</b>	<b>.01</b>	<b>.22</b>	<b>.03</b>
Psychopathy	<b>.33/.21</b>	<b>.39/.31</b>	<b>.43</b>	<b>.07</b>	<b>.06</b>	<b>.08</b>	<b>.02</b>
Enhancement							
General	<b>.46/.56</b>	<b>-.03/-.25</b>	<b>.51</b>	<b>.10</b>	<b>.07</b>	<b>.12</b>	<b>.06</b>
Agentic	<b>.32/.43</b>	<b>-.11/-.27</b>	<b>.41</b>	<b>.09</b>	<b>.13</b>	<b>.05</b>	<b>.14</b>
Communal	<b>.05/.27</b>	<b>-.46/-.57</b>	<b>.52</b>	<b>.27</b>	.00	<b>.21</b>	.00

*Note.*  $N = 510$ . ADM = narcissistic admiration, RIV = narcissistic rivalry.  $\beta$ 's and  $R$ 's refer to standardized regression coefficients, and multiple correlations, respectively when simultaneously regressing each criterion measure on admiration and rivalry.  $\Delta R^2$ 's refer to the amount of additionally explained variance in the second step of stepwise multiple regressions with both NARQ dimensions ( $\Delta R^2_{\text{NARQ}}$ ) or NPI measures ( $\Delta R^2_{\text{NPI}}$ ) entered in the second step. The first two

multiple regressions compared admiration and rivalry with the NPI total score, whereas the last two multiple regressions compared admiration and rivalry with the NPI L/A and E/E facets. Bold correlations are significant ( $p < .05$ , two-tailed).

Table 7 *Correlations with General Interpersonal Orientations and Conflict Reactions in Close Relationships (Study 5)*

	NARQ		<i>R</i>	NARQ dimensions vs. NPI-total		NARQ dimensions vs. NPI-facets	
	ADM <i>r</i> / $\beta$	RIV <i>r</i> / $\beta$		$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$	$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$
Empathy	.01/.15	<b>-.43/-.47</b>	<b>.45</b>	<b>.20</b>	.00	<b>.12</b>	<b>.03</b>
Interpersonal distrust	-.01/-.15	<b>.44/.49</b>	<b>.46</b>	<b>.22</b>	<b>.01</b>	<b>.12</b>	<b>.04</b>
Forgiveness	.02/.13	<b>-.33/-.37</b>	<b>.36</b>	<b>.13</b>	.00	<b>.06</b>	<b>.05</b>
Gratitude	<b>.13/.24</b>	<b>-.30/-.37</b>	<b>.38</b>	<b>.14</b>	<b>.01</b>	<b>.10</b>	<b>.01</b>
Conflict reactions							
Revenge	<b>.10/.00</b>	<b>.35/.35</b>	<b>.35</b>	<b>.10</b>	.00	<b>.08</b>	<b>.02</b>
Direct problem- focused	<b>.18/.23</b>	<b>-.11/-.17</b>	<b>.24</b>	<b>.05</b>	.00	<b>.06</b>	.00

*Note.*  $N = 1,085$  for conflict reactions, and  $N = 854$  for all other measures. ADM = narcissistic admiration, RIV = narcissistic rivalry.  $\beta$ 's and  $R$ 's refer to standardized regression coefficients, and multiple correlations, respectively when simultaneously regressing each criterion measure on admiration and rivalry.  $\Delta R^2$ 's refer to the amount of additionally explained variance in the second step of stepwise multiple regressions with both NARQ dimensions ( $\Delta R^2_{\text{NARQ}}$ ) or NPI measures ( $\Delta R^2_{\text{NPI}}$ ) entered in the second step. The first two multiple regressions compared admiration and rivalry with the NPI total score, whereas the last two multiple regressions compared admiration and rivalry with the NPI L/A and E/E facets. Bold correlations are significant ( $p < .05$ , two-tailed).

Table 8

*Effects of Narcissistic Admiration and Rivalry on Self-Perceptions in Social Interactions (Study 6)*

	NARQ		<i>R</i>	NARQ dimensions vs. NPI-total		NARQ dimensions vs. NPI-facets	
	ADM <i>r</i> / $\beta$	RIV <i>r</i> / $\beta$		$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$	$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$
Narcissistic	<b>.44 / .39</b>	<b>.32 / .22</b>	<b>.43</b>	<b>.05</b>	.01	<b>.10</b>	.00
Assertive	<b>.50 / .57</b>	.12 / -.08	<b>.48</b>	<b>.09</b>	.02	<b>.09</b>	<b>.04</b>
Sociable	<b>.44 / .50</b>	.05 / -.16	<b>.42</b>	<b>.06</b>	<b>.05</b>	<b>.08</b>	.03
Aggressive	.08 / -.07	<b>.43 / .57</b>	<b>.45</b>	<b>.21</b>	<b>.02</b>	<b>.19</b>	.01
Trustworthy	.06 / .10	-.10 / -.17	.19	.02	.01	.02	.01
Attractive	<b>.40 / .44</b>	.14 / -.01	<b>.38</b>	.03	<b>.05</b>	<b>.08</b>	.01
Competent	<b>.37 / .42</b>	.07 / -.08	<b>.37</b>	<b>.04</b>	.02	<b>.06</b>	.02
Likeable	<b>.27 / .34</b>	.05 / -.05	<b>.30</b>	<b>.05</b>	.00	<b>.07</b>	.01

*Note.*  $N = 202$ . ADM = narcissistic admiration, RIV = narcissistic rivalry.  $\beta$ 's and  $R$ 's refer to standardized regression coefficients, and multiple correlations, respectively when simultaneously regressing each criterion measure on admiration and rivalry.  $\Delta R^2$ 's refer to the amount of additionally explained variance in the second step of stepwise multiple regressions with both NARQ dimensions ( $\Delta R^2_{\text{NARQ}}$ ) or NPI measures ( $\Delta R^2_{\text{NPI}}$ ) entered in the second step. The first two multiple regressions compared admiration and rivalry with the NPI total score, whereas the last two multiple regressions compared admiration and rivalry with the NPI L/A and E/E facets. Bold correlations are significant ( $p < .05$ , two-tailed).

Table 9

*Effects of Narcissistic Admiration and Rivalry on Target Effects in Social Interactions (Study 6)*

	NARQ		<i>R</i>	NARQ dimensions vs. NPI-total		NARQ dimensions vs. NPI-facets	
	ADM <i>r</i> / $\beta$	RIV <i>r</i> / $\beta$		$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$	$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$
Narcissistic	<b>.28/.26</b>	<b>.24/.20</b>	<b>.33</b>	.03	.01	.03	.02
Assertive	<b>.34/.42</b>	.08/-.06	<b>.36</b>	<b>.07</b>	.00	<b>.07</b>	.01
Sociable	<b>.33/.41</b>	.06/-.08	<b>.34</b>	<b>.05</b>	.00	<b>.05</b>	.02
Aggressive	<b>.28/.24</b>	<b>.29/.27</b>	<b>.35</b>	<b>.06</b>	.00	<b>.06</b>	.01
Trustworthy	.02/.13	<b>-.24/-.35</b>	<b>.29</b>	<b>.07</b>	.02	<b>.05</b>	.01
Attractive	<b>.16/.20</b>	.02/-.05	.21	.01	.02	.01	.01
Competent	<b>.19/.27</b>	-.05/-.16	<b>.25</b>	<b>.06</b>	.01	<b>.04</b>	.00
Likeable	.05/.17	<b>-.21/-.32</b>	<b>.27</b>	<b>.06</b>	.00	<b>.06</b>	.00

*Note.*  $N = 202$ . ADM = narcissistic admiration, RIV = narcissistic rivalry.  $\beta$ 's and  $R$ 's refer to standardized regression coefficients, and multiple correlations, respectively when simultaneously regressing each criterion measure on admiration and rivalry.  $\Delta R^2$ 's refer to the amount of additionally explained variance in the second step of stepwise multiple regressions with both NARQ dimensions ( $\Delta R^2_{\text{NARQ}}$ ) or NPI measures ( $\Delta R^2_{\text{NPI}}$ ) entered in the second step. The first two multiple regressions compared admiration and rivalry with the NPI total score, whereas the last two multiple regressions compared admiration and rivalry with the NPI L/A and E/E facets. Bold correlations are significant ( $p < .05$ , two-tailed).

Table 10

*Effects of Narcissistic Admiration and Rivalry on Perceiver Effects in Social Interactions (Study 6)*

	NARQ		<i>R</i>	NARQ dimensions vs. NPI-total		NARQ dimensions vs. NPI-facets	
	ADM <i>r</i> / $\beta$	RIV <i>r</i> / $\beta$		$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$	$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$
Narcissistic	<b>.25/.22</b>	<b>.25/.23</b>	<b>.32</b>	<b>.07</b>	.01	<b>.07</b>	.01
Assertive	.10/.17	-.08/-.16	.20	.03	.01	.03	.04
Sociable	.06/.13	-.12/-.19	.19	.03	.00	.02	.02
Aggressive	.12/.00	<b>.34/.42</b>	<b>.34</b>	<b>.15</b>	<b>.03</b>	<b>.14</b>	.03
Trustworthy	.04/.14	<b>-.21/-.31</b>	<b>.28</b>	<b>.06</b>	.01	<b>.05</b>	.01
Attractive	<b>.19/.27</b>	-.04/-.15	<b>.27</b>	.04	.00	<b>.04</b>	.00
Competent	.05/.10	-.09/-.15	.16	.02	.01	.01	.00
Likeable	.05/.12	-.13/-.21	.22	.03	.00	.02	.01

*Note.*  $N = 202$ . ADM = narcissistic admiration, RIV = narcissistic rivalry.  $\beta$ 's and  $R$ 's refer to standardized regression coefficients, and multiple correlations, respectively when simultaneously regressing each criterion measure on admiration and rivalry.  $\Delta R^2$ 's refer to the amount of additionally explained variance in the second step of stepwise multiple regressions with both NARQ dimensions ( $\Delta R^2_{\text{NARQ}}$ ) or NPI measures ( $\Delta R^2_{\text{NPI}}$ ) entered in the second step. The first two multiple regressions compared admiration and rivalry with the NPI total score, whereas the last two multiple regressions compared admiration and rivalry with the NPI L/A and E/E facets. Bold correlations are significant ( $p < .05$ , two-tailed).

Table 11

*Effects of Narcissistic Admiration and Rivalry on Agentic and Communal Behavior (Study 7)*

	NARQ		<i>R</i>	NARQ dimensions vs. NPI-total		NARQ dimensions vs. NPI-facets	
	ADM <i>r</i> / $\beta$	RIV <i>r</i> / $\beta$		$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$	$\Delta R^2_{\text{NARQ}}$	$\Delta R^2_{\text{NPI}}$
Agentic behavior	<b>.41/.44</b>	.07/-.08	<b>.42</b>	<b>.07</b>	.00	<b>.15</b>	.01
self-assured content	<b>.26/.27</b>	.06/-.03	<b>.26</b>	.01	.01	<b>.07</b>	.01
self-assured voice	<b>.31/.30</b>	.15/.05	<b>.31</b>	<b>.06</b>	.00	<b>.09</b>	.01
self-assured facial expression	<b>.20/.24</b>	-.03/-.11	.22	.02	.00	.05	.00
expressive gestures	<b>.21/.20</b>	.10/.03	.22	.04	.01	.03	.01
overall activity	<b>.20/.26</b>	-.11/-.20	<b>.27</b>	.03	.01	.05	.03
overall engagement	<b>.28/.28</b>	.09/-.01	<b>.28</b>	.04	.00	<b>.10</b>	.03
Communal behavior	-.10/.01	<b>-.30/-.30</b>	<b>.30</b>	<b>.11</b>	.03	<b>.13</b>	.05
warm voice	-.04/.05	<b>-.23/-.25</b>	.23	<b>.07</b>	.02	<b>.08</b>	.04
authentic smiling	-.14/-.09	<b>-.20/-.17</b>	.21	.03	.00	.03	.01
overall warmth	.01/.09	<b>-.19/-.22</b>	.21	.05	.02	<b>.07</b>	<b>.06</b>
overall femininity	-.10/-.03	<b>-.22/-.21</b>	.22	<b>.09</b>	<b>.05</b>	<b>.08</b>	.05

*Note.*  $N = 96$ . ADM = narcissistic admiration, RIV = narcissistic rivalry.  $\beta$ 's and  $R$ 's refer to standardized regression coefficients, and multiple correlations, respectively when simultaneously regressing each criterion measure on admiration and rivalry.  $\Delta R^2$ 's refer to the amount of additionally explained variance in the second step of stepwise multiple regressions with both NARQ dimensions ( $\Delta R^2_{\text{NARQ}}$ ) or NPI measures ( $\Delta R^2_{\text{NPI}}$ ) entered in the second step. The first two multiple regressions compared admiration and rivalry with the NPI total score, whereas the last two

multiple regressions compared admiration and rivalry with the NPI L/A and E/E facets. Bold correlations are significant ( $p < .05$ , two-tailed).



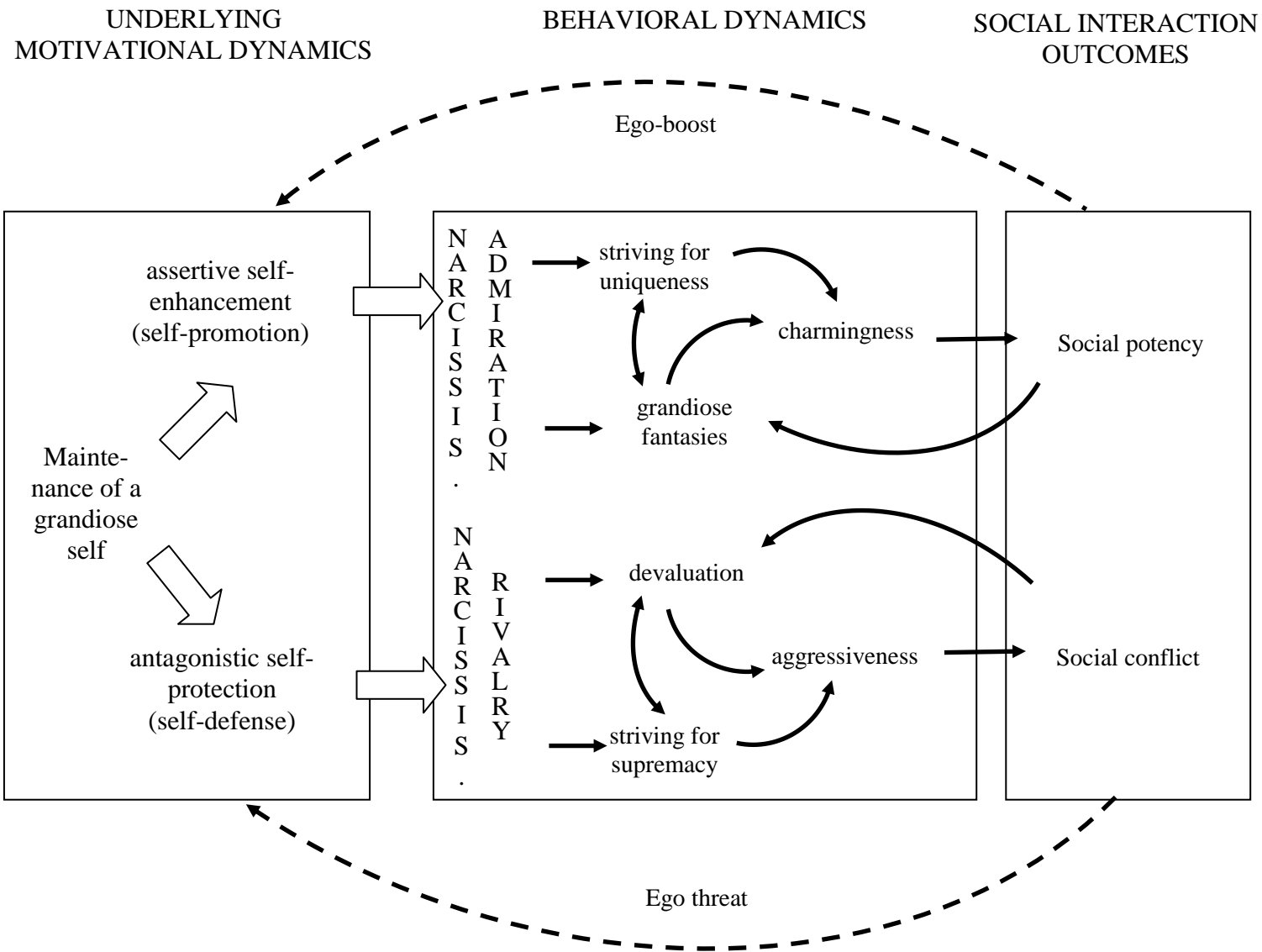


Figure 1. The Narcissistic Admiration and Rivalry Concept (NARC).

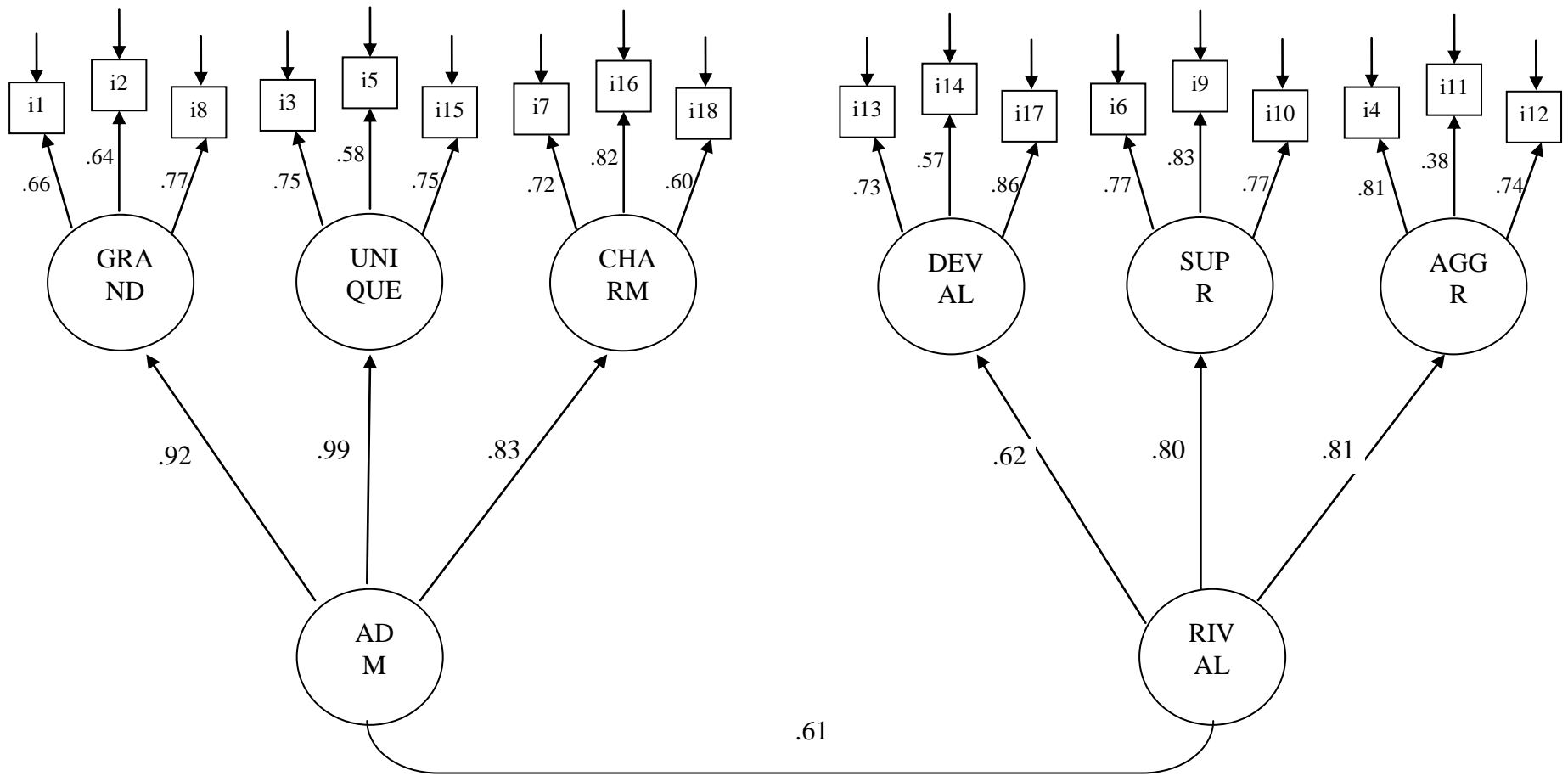


Figure 2. CFA model of the Narcissistic Admiration and Rivalry Questionnaire (NARQ).

$N = 953$ . ADM = narcissistic admiration; RIVAL = Narcissistic rivalry; GRAND = Grandiosity; UNIQUE = Striving for uniqueness; CHARM = Charmingness; DEV = Devaluation; SUPR = Striving for supremacy; AGGR = Aggressiveness. See Table 2 for item wordings. All loadings are standardized.

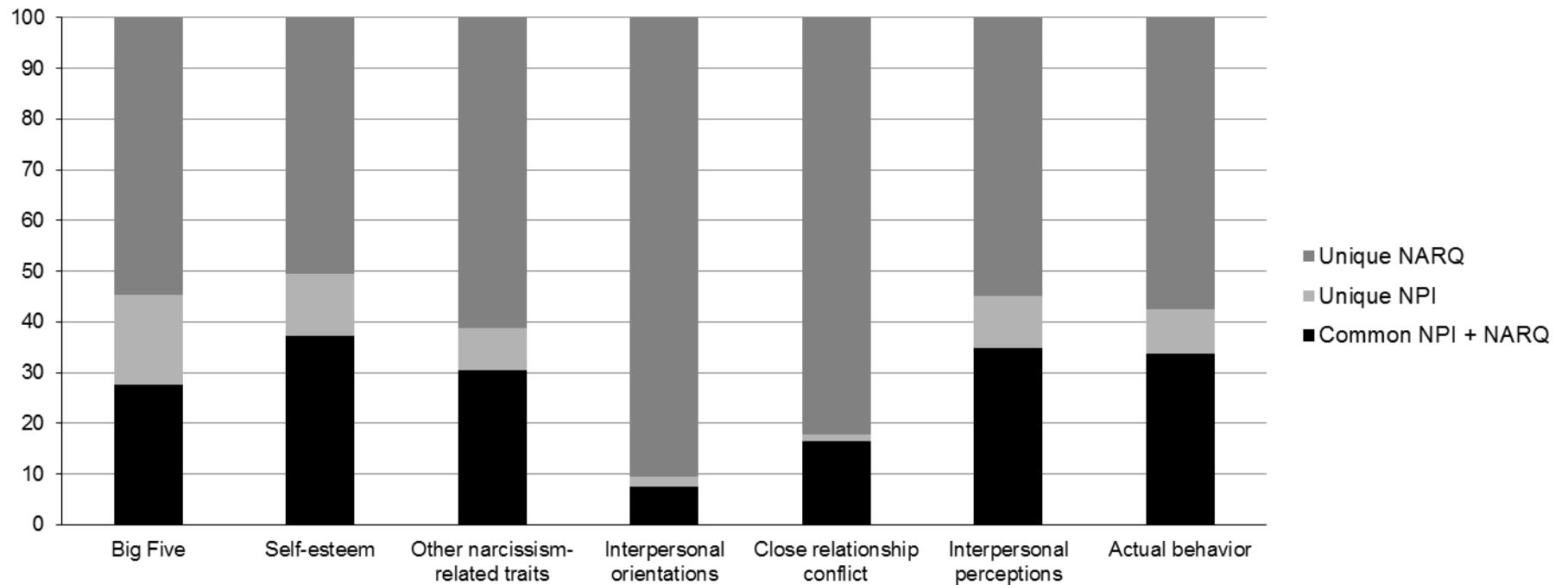
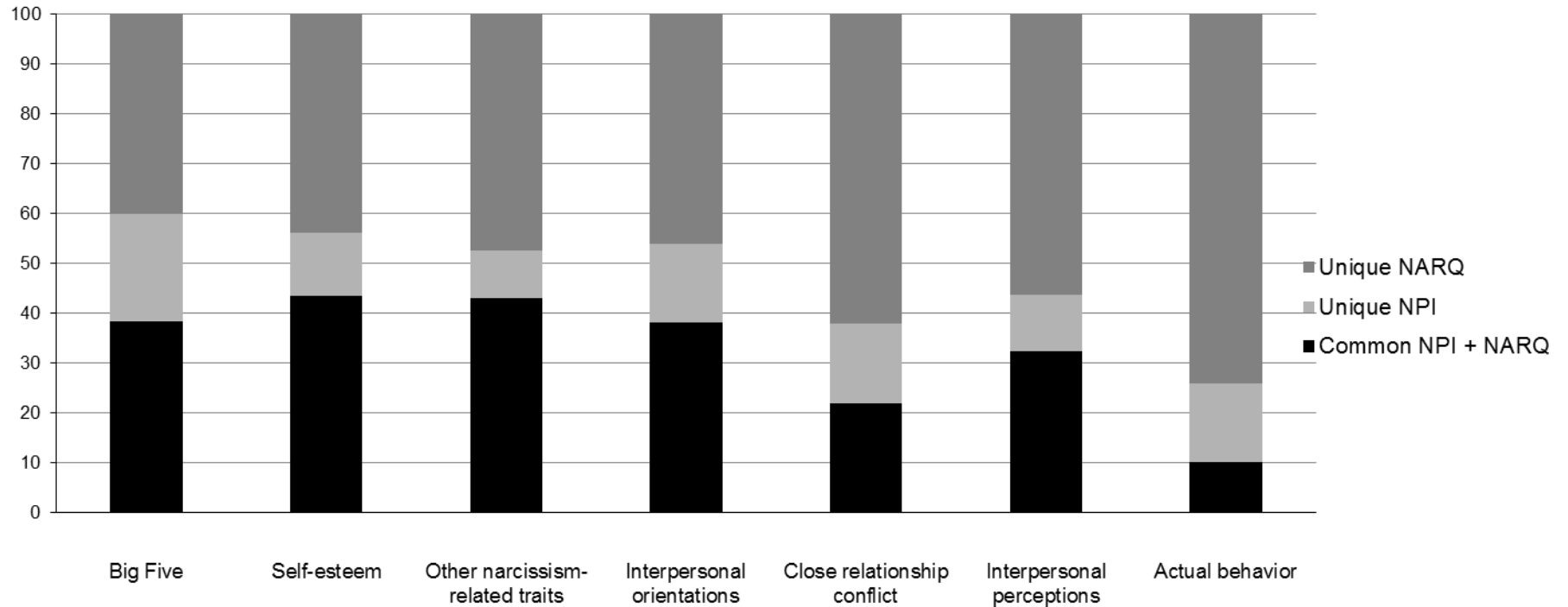


Figure 3. Commonality analyses of NARQ dimensions and NPI total score. 100% refers to the mean total amount of *explained* variance in a group of dependent variables. NARQ = Narcissistic Admiration and Rivalry Questionnaire. NPI = Narcissistic Personality Inventory. Unique NARQ variance refers to variance uniquely explained by the NARQ admiration or rivalry dimensions or common to specifically these two dimensions. Unique NPI variance refers to variance uniquely explained by the NPI total score. Common NPI + NARQ variance refers to variance that is common to any combination between NARQ dimensions and the NPI total score. Negative variances were set to zero before calculating percentages.



*Figure 4.* Commonality analyses of NARQ dimensions and NPI facets. 100% refers to the mean total amount of *explained* variance in a group of dependent variables. NARQ = Narcissistic Admiration and Rivalry Questionnaire. NPI = Narcissistic Personality Inventory. Unique NARQ variance refers to variance uniquely explained by the NARQ admiration or rivalry dimensions or common to specifically these two dimensions. Unique NPI variance refers to variance uniquely explained by the NPI Leadership/Authority or Exploitativeness/Entitlement facets or common to specifically these two facets. Common NPI + NARQ variance refers to explained variance that is common to any combination between NARQ dimensions and the NPI facets. Negative variances were set to zero before calculating percentages.