

The Evil Queen's Dilemma: Linking Narcissistic Admiration and Rivalry to Benign and Malicious Envy

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Abstract: It is widely assumed that narcissists are envious. Nevertheless, evidence supporting this claim has remained elusive. In five studies ($N = 1,225$), we disentangle how grandiose narcissism predicts divergent envious inclinations. Specific facets of narcissism and forms of envy shared the same underlying motivational orientations (Study 1) and distinctively related to each other (Studies 1 to 5) via differences in emotional appraisal (Study 4). Moreover, envy was linked to opposing social consequences of different narcissism facets (Study 5). Specifically, hope for success related to narcissistic admiration, predicting benign envy, which entails the motivation to improve performance, translating into the ascription of social potency by the self and others. In contrast, fear of failure related to narcissistic rivalry, predicting malicious envy, which entails hostility, translating into the ascription of a proneness for social conflict by others. These results converged with envy measured as a trait (Studies 1 and 5) or state in recall tasks (Studies 2 and 4) and as response to an upward standard in the situation (Study 3). The findings provide important insights into narcissists' emotional complexities, integrate prior isolated and conflicting evidence, and open up new avenues for research on narcissism and envy. Copyright © 2016 European Association of Personality Psychology

Key words: grandiose narcissism; narcissistic admiration and rivalry; benign and malicious envy; social comparison; social perception

The Evil Queen's dilemma: Linking narcissistic admiration and rivalry to benign and malicious envy

One day when the queen asked her mirror: *Mirror, mirror, on the wall, Who in this land is fairest of all?*
It answered: *You, my queen, are fair; it is true. But Snow-White is a thousand times fairer than you.*
The queen took fright and turned yellow and green with envy.
(Grimm & Grimm, 1857/2002)

Are narcissists envious? According to a widely held assumption, envy is a central element of narcissism. This notion was strongly endorsed, for example in Kernberg's (1975) influential psychoanalytic conceptualization of narcissism, and it prevails in many clinical approaches (Campbell & Miller, 2011). In fact, it was taken to be so self-evident that it

even used to be one of the criteria to diagnose narcissistic personality disorder (American Psychiatric Association, 2000). Further indicating the presumed importance of envy in grandiose narcissism, one of the original versions of the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979; Emmons, 1987) included the item 'I am envious of other people's good fortune' and envy has been used in experimental stimuli to convey a narcissistic person (Campbell, Foster, & Finkel, 2002). Surprisingly, however, a clear empirical link of envy and narcissism has remained elusive. In fact, the few investigations of this question have concluded that the green-eyed monster may not be a universal part of the narcissistic psyche.

More specifically, only vulnerable and not grandiose narcissists have been found to be envious of others' qualities, achievements, or possessions (Gold, 1996; Krizan & Johar, 2012). If anything, the relationship of grandiose narcissism and envy was absent (Gold, 1996), even slightly negative (Krizan & Johar, 2012), or indirect and inconsistent (Neufeld & Johnson, in press). Indeed, should not narcissists' grandiosity and their tendency for self-enhancement (Grijalva & Zhang, 2016) protect them from threatening upward comparisons? We argue that in many situations, objective sources of information, such as exam results, promotion decisions, or truth-telling mirrors, will undeniably reveal narcissists' inferiority relative to others. If maintaining high status is narcissists' central concern, any defect substantiated by comparisons with superior others should be a particularly strong elicitor of emotion and spur them to deal with their disadvantage.

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The goal of the present research is to investigate whether narcissists¹ are in fact highly prone to react to situational inferiority with envy. Importantly, however, narcissism and envy may be related in a more complex way than previously assumed. We posit that to unravel their relationship, it is necessary to take distinct motivational dynamics within both envy and narcissism into account. We link the two facets of grandiose narcissism—narcissistic admiration and rivalry (Back et al., 2013)—to the two distinct forms of envy—benign and malicious envy (Lange & Crusius, 2015a; Van de Ven, Zeelenberg, & Pieters, 2009). Moreover, we investigate how these emotional links illuminate the paradox of narcissism, the enigmatic opposing effects of narcissism on perceived (un-)popularity.

NARCISSISTIC ADMIRATION AND RIVALRY

Narcissists hold highly inflated, unrealistically positive, grandiose views of themselves (Gebauer, Sedikides, Verplanken, & Maio, 2012; Morf & Rhodewalt, 2001). This biased self-perception has a profound impact on narcissists' social behaviour. Much of the recent interest in narcissism research has been fed by the paradoxical nature of these outcomes. On the one hand, narcissists are socially attractive (Back, Schmukle, & Egloff, 2010; Vazire, Naumann, Rentfrow, & Gosling, 2008) and seen as confident, intelligent, and competent by their peers (Back et al., 2013; Paulhus, 1998). As a consequence, narcissists have high mating success (Dufner, Rauthmann, Czarna, & Denissen, 2013; Grosz, Dufner, Back, & Denissen, 2015), are more often chosen as leaders of social groups (Brunell et al., 2008), and have a higher probability to become famous (Dufner et al., 2015; Young & Pinsky, 2006). On the other hand, narcissists also show hostile behaviours (Bushman & Baumeister, 1998; Morf & Rhodewalt, 1993) leading others to see them as aggressive, less trustworthy, or bragging towards competitors (Back et al., 2013; Paulhus, 1998), which undermines their social relationships (Back et al., 2013; Campbell et al., 2002; Carlson & DesJardins, 2015; Leckelt, Küfner, Nestler, & Back, 2015; Paulhus, 1998). The paradox culminates in the finding that narcissism can simultaneously contribute to being popular and unpopular at zero acquaintance (Back et al., 2013; Küfner, Nestler, & Back, 2013).

Back et al. (2013) and Leckelt et al. (2015) have recently developed the Narcissistic Admiration and Rivalry Concept (NARC) as a process model that accounts for these diverging behavioural and social outcomes. They posit that—at the trait level—these paradoxical effects are differentially connected to two narcissistic facets. According to their model, these facets are fed by distinct motivational dynamics determining the way in which narcissists pursue their goal of maintaining a grandiose self. The behavioural pattern of *narcissistic*

admiration is assumed to be driven by hope for greatness and success, causing a self-regulatory strategy of assertive self-enhancement. In line with this conceptualization, narcissistic admiration comprises feelings of grandiosity, striving for uniqueness, and perceived charmingness. As social interaction outcomes, these tendencies should result in narcissists' social potency—desirable social consequences such as admiration and praise by others. The behavioural pattern of *narcissistic rivalry*, in contrast, is assumed to be driven by fear of failure, prompting a self-regulatory strategy of antagonistic self-protection. In this vein, narcissistic rivalry is conceptualized as comprising striving for supremacy, active devaluation of others, as well as aggressiveness. As social interaction outcomes, these tendencies should result in social conflict—negative social consequences such as perceived aggressiveness and unpopularity. In several studies, Back et al. (2013) developed a reliable and valid measure of the two facets. Their data indicate that narcissistic admiration and rivalry capture the diversity of narcissistic behaviour in a more comprehensive manner than narcissism as assessed by the NPI.

Despite the importance of identifying processes associated with social consequences of personality (Back, 2015; Back et al., 2011), such evidence about the paradoxical effects of narcissism is still limited (refer to Leckelt et al. 2015, for initial findings). In line with previous researchers (e.g. Tracy & Robins, 2007), we argue that specific emotions may be related to narcissistic reactions. Often, narcissists show more intense emotional responses than other people, as evidenced by a higher release of stress-related hormones (Cheng, Tracy, & Miller, 2013), as well as more intense anger to failure feedback (Rhodewalt & Morf, 1998) and to social exclusion (Twenge & Campbell, 2003). Some researchers have argued that many of these effects might be explained by an increased propensity of narcissists to be motivated by shame and hubristic pride (Tracy, Cheng, Robins, & Trzesniewski, 2009; Tracy & Robins, 2003, 2007). However, these emotions are predominantly related to only one side of the paradox of narcissism, its antisocial facet (Tracy & Robins, 2007; Tracy et al., 2009). If these processes do not match the multifaceted nature of narcissism, which other emotional processes might be linked to their diverse social outcomes?

We argue that in order to answer this question it is fruitful to start with narcissists' greatest concern—their own superior status (e.g. Campbell & Miller, 2011; Wallace & Baumeister, 2002). A high concern for superior status implies an increased propensity to compare the self to others as superiority can be assessed only relative to other people (Corcoran, Crusius, & Mussweiler, 2011). Several findings directly show that social comparisons are extremely important for narcissists. For example narcissists' intrinsic motivation is boosted when their performance is determined in comparison to others rather than when their performance is self-referential (Morf, Weir, & Davidov, 2000). Furthermore, the NPI is correlated with a dispositional propensity to engage in social comparisons (Bogart, Benotsch, & Pavlovic, 2004) and a chronic comparison mindset (Burgmer & Ohmann, 2016).

¹As long as not otherwise stated, when we refer to narcissism, we mean non-pathological, grandiose narcissism as the trait that may characterize people in the general population.

NARCISSISM, STATUS THREAT, AND ENVY

Narcissists' greatest concern is superior status. Consequently, they tend to compare their personal standing to the level of others and their worst case should be when they are outperformed by another person. Indeed, narcissists react with stronger negative affect to upward comparison standards (Bogart *et al.*, 2004), reflecting the need for corrective action. As an emotional consequence of upward social comparisons, envy may in fact be a functional response in such situations. Even though envy is often regarded as a maladaptive emotion, recent theorizing and evidence has highlighted that envy serves important functions. Envy not only alerts people of their shortcomings relative to others, it also spurs them to deal with such disadvantages (Crusius & Lange, 2014; Hill & Buss, 2008; Hill, DelPriore, & Vaughan, 2011).

In particular, we argue that it is fruitful to conceptualize envy as an adaptive emotional reaction tied to the pursuit of status in social hierarchies (Crusius & Lange, *in press*; Lange & Crusius, 2015b). According to an influential evolutionary model of social status (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Henrich & Gil-White, 2001), hierarchies differ in how people attain and regulate social status. The model posits that in prestige-based hierarchies, people can elevate their status through merit by gaining respect and admiration by their peers, fostering emulation of superior others by subordinates. In contrast, in dominance-based hierarchies, people can gain and defend their position in the hierarchy by coercive tactics that derogate others, such as intimidating or aggressing against competitors. Consequently, specific emotions should have evolved as adaptations to the challenges that these diverging pathways to social status have posed throughout our evolutionary past (Steckler & Tracy, 2014), for example by establishing superior status (Cheng, Tracy, & Henrich, 2010) or by guiding reactions to status threat (Lange & Crusius, 2015b).

In this vein, envy may be considered a social-functional response to increased status differences between the self and the envied person. In fact, recent evidence supports the view that at the state and the trait level, envy occurs in two qualitatively different forms that map onto the distinct pathways to social status. Both forms are characterized by high frustration but involve distinct cognitions and experiences, as well as diverging motivational and behavioural inclinations (Crusius & Lange, 2014; Falcon, 2015; Lange & Crusius, 2015a, 2015b; Van de Ven *et al.*, 2009; Van de Ven, Zeelenberg, & Pieters, 2012, 2011; for a unidimensional conceptualization of envy, refer to Rentzsch & Gross, 2015).

In particular, *benign envy* is directed at improving the envier's position by becoming as successful as the envied person or even excelling him or her and may, thus, be regarded as an emotion that prompts people to attain status via prestige. This notion is supported by findings showing that benign envy involves more positive thoughts about envied persons (Van de Ven *et al.*, 2009), increases the desire for their superior possessions (Crusius & Mussweiler, 2012), shifts the attentional focus towards means for self-improvement (Crusius & Lange, 2014), and fosters upward-motivated behaviour (Lange & Crusius, 2015a, 2015b; Van

de Ven *et al.*, 2011). Furthermore, benign envy is spurred interpersonally as a functional response to other people who display authentic pride about invested effort and thereby convey status via prestige (Lange & Crusius, 2015b).

In contrast, *malicious envy* is directed at harming the superior position of others by pulling them down and may, thus, be regarded as an emotion that prompts people to attain status via dominance. This is supported by findings showing that malicious envy is related to antagonistic and resentful thoughts about the envied person (Van de Ven *et al.*, 2009), *schadenfreude* at the others' suffering (Van de Ven *et al.*, 2014), an attentional shift towards envied others (Crusius & Lange, 2014; Hill *et al.*, 2011), and hostile motivation and behaviour (Lange & Crusius, 2015b; Van de Ven *et al.*, 2009). Furthermore, it is spurred interpersonally, as a functional response to other people who display hubristic pride about their own talent and thereby convey status via dominance (Lange & Crusius, 2015b).

This analysis suggests that benign and malicious envy drive specific, functional strategies with which individuals characterized by narcissistic admiration and rivalry seek to attain status. These links result from envy and narcissism's common motivational dynamics that determine how people construe status-related opportunities and threats. As alluded to above, the NARC theorizes that hope for success and greatness fuel the assertive, self-enhancing behavioural strategy that characterizes narcissistic admiration (Back *et al.*, 2013). In the same vein, dispositional hope for success has been shown to predict benign envy, leading to increased goal setting and upward-directed effort (Lange & Crusius, 2015a). These findings are in line with the idea that benign envy is a functional response to status threats when there are (perceived) opportunities to attain status via prestige in upward social comparison situations (Crusius & Lange, *in press*). Thus, in line with the NARC, we hypothesize that hope for success determines a general pattern of narcissistic admiration. Specific to social comparison situations, this tendency should correspond to benign envy as the emotional pathway, in which narcissists respond to the status threat posed by the standards of excellence set by superior others. Furthermore, the ambitious behaviour prompted by benign envy (e.g. Lange & Crusius, 2015a; Van de Ven *et al.*, 2011) with the ultimate goal to increase social prestige may be perceived by others. Thus, benign envy may explain the effects of narcissistic admiration on social potency.

In parallel, the NARC theorizes that a chronic fear of failure fuels the antagonistic and self-protective behavioural strategy that characterizes narcissistic rivalry (Back *et al.*, 2013). Likewise, fear of failure has been shown to predict malicious envy (Lange & Crusius, 2015a), which is related to avoidant goal setting (Lange & Crusius, 2015a) and resentful and aggressive behaviours (e.g. Duffy, Scott, Shaw, Tepper, & Aquino, 2012; Lange & Crusius, 2015b; Van de Ven *et al.*, 2014, 2009). These findings are in line with the idea that malicious envy is a functional response to status threats when the best way to attain status is (perceived to be) striving for dominance (Crusius & Lange, *in press*). Thus, in line with the NARC, we hypothesize that fear of failure predicts a general pattern of narcissistic rivalry. Furthermore, this tendency should correspond to malicious envy as the emotional pathway, in which narcissists

respond to the status threat posed by the standards of excellence set by superior others. Finally, the hostile behaviour prompted by malicious envy may be linked to the effects of narcissistic rivalry on the tendency to engage in social conflict. Thus, malicious envy may contribute to the explanation of the adverse social effects of narcissistic rivalry.

Even though this reasoning suggests that narcissists should be highly envious when confronted with upward comparison standards, this relationship has been elusive in previous research. As indicated previously, if anything, a direct link between envy and narcissism was robust only for vulnerable narcissism (Gold, 1996; Krizan & Johar, 2012; Neufeld & Johnson, in press). How can these findings be reconciled with our reasoning? We believe that the earlier conceptualizations of both constructs made it unlikely that previous investigations would find an association between narcissism and envy. Narcissism was measured mostly with the NPI or scales capturing grandiosity. Theoretically and empirically, these are more strongly related to narcissistic admiration than narcissistic rivalry (Back et al., 2013). Furthermore, envy was measured with the Dispositional Envy Scale (DES; Smith, Parrott, Diener, Hoyle, & Kim, 1999) or the York Enviousness Scale (YES; Gold, 1996). These scales cover only a subset of the affective and motivational inclinations that characterize envy (refer to Lange & Crusius, 2015a, for an elaborated discussion). Particularly, some items in the DES measure feelings of chronic inferiority (e.g. 'The bitter truth is that I generally feel inferior to others' and 'I am troubled by feelings of inadequacy') and more specifically malicious envy (e.g. 'Frankly, the success of my neighbours makes me resent them') and corresponding perceptions of unfairness (e.g. 'It somehow doesn't seem fair that some people seem to have all the talent'). The same arguments apply to the YES. Therefore, previous research may have, in fact, investigated mostly a relation of narcissistic admiration (grandiosity) with chronic inferiority and malicious envy. If narcissistic admiration is distinctively related to benign envy, as we argue here, it may have been impossible to find a link between narcissism and envy.

THE CURRENT RESEARCH

We theorize that narcissists are envious. Adopting the NARC (Back et al., 2013), we conceptualize benign and malicious envy as linked to the different facets of narcissism and their respective motivational orientations (Figure 1). Specifically, we theorize that hope for success predicts narcissistic admiration, which should be related to an increased proneness to experience benign envy when being confronted with an upward comparison standard. This should be reflected in behavioural inclinations directed at improving the narcissists' own position. These behavioural tendencies may then be perceived by others. Consequently, benign envy should predict the perception of social potency as an outcome of narcissistic admiration. In addition, we theorize that fear of failure predicts narcissistic rivalry, which should be related to malicious envy when being confronted with an upward comparison standard. This should be reflected in behavioural inclinations directed at harming the envied person's position. These behavioural tendencies may also be perceived by others. Consequently, malicious envy should predict the perception of social conflict as an outcome of narcissistic rivalry. We investigated our predictions illustrated in Figure 1 sequentially in five studies.

STUDY 1

The goal of Study 1 was twofold. First, we investigated whether narcissists characterized by narcissistic admiration and rivalry indeed have a higher propensity to engage in social comparison. This has been found for the NPI (Bogart et al., 2004), yet, not for the two facets of narcissism. Second, we investigated the specific relations of the narcissism facets and the envy forms as well as their underlying motivational orientations. Specifically, as posited by the NARC, hope for success and fear of failure should be related to narcissistic admiration and rivalry, respectively. Furthermore, we predicted that these links would mediate the effects of

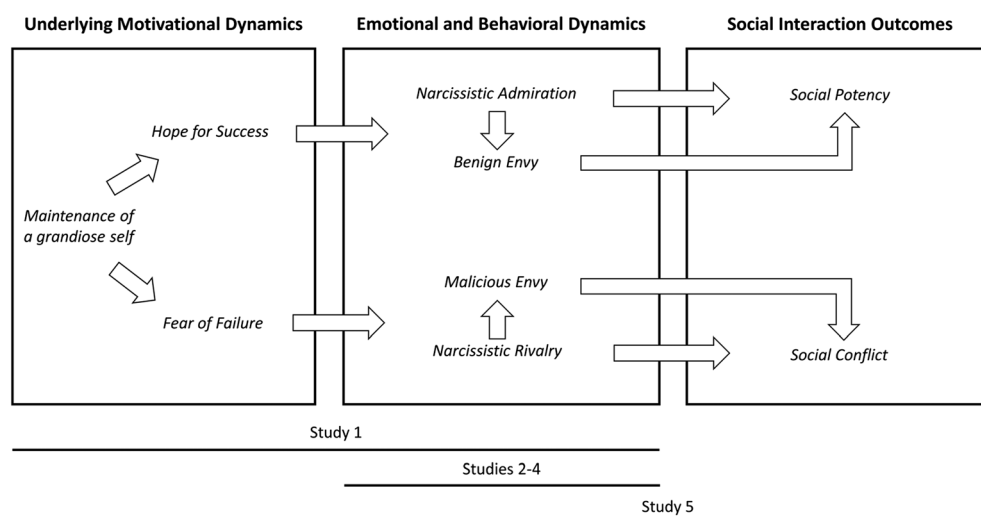


Figure 1. Conceptual framework of the links between the different forms of narcissism and envy, adapted from the Narcissistic Admiration and Rivalry Concept (NARC; Back et al., 2013) and overview of the studies testing the corresponding links.

hope for success and fear of failure on dispositional benign and malicious envy (Figure 1).

Method

Participants

We asked 205 workers² from Amazon Mechanical Turk (MTurk) to participate in Study 1. Based on criteria set a priori, we excluded one participant who indicated that we should not use the data because of careless responding (Meade & Craig, 2012). Thus, the final sample size was 204. The average age was 35.69 years ($SD = 11.86$, range: 20–73). One hundred twenty-two were male.

Materials and procedure

Participants completed questionnaires measuring comparison propensity, hope for success and fear of failure, narcissistic admiration and rivalry, dispositional benign and malicious envy, and social desirability. We measured comparison propensity with the Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999). The scale measures the dispositional tendency to compare with 11 items (e.g. 'I often compare myself with others with respect to what I have accomplished in life'; $\alpha = .86$) using a scale from 1 (*I disagree strongly*) to 5 (*I agree strongly*). Although social comparison propensity can be conceptualized as unidimensional, Gibbons and Buunk (1999) have suggested that some items measure comparison propensity related to ability ($\alpha = .88$) and other items measure comparison propensity related to opinion ($\alpha = .79$). We predicted that narcissism and envy would be more strongly linked with comparison propensity related to ability. Opinions are not competitive such that one opinion is necessarily better than another. However, comparisons about ability are intrinsically related to status. Therefore, narcissists and envious should be especially willing to compare their own capabilities to others (for a similar finding, refer to Lange & Crusius, 2015a).

We measured achievement motivation with the short version of the Achievement Motives Scale (Lang & Fries, 2006). Participants indicated how much they agree with five items measuring hope for success (e.g. 'I like situations in which I can find out how capable I am'; $\alpha = .85$) and five items measuring fear of failure (e.g. 'I feel uneasy to do something if I am not sure of succeeding'; $\alpha = .88$) using a scale from 1 (*strongly disagree*) to 4 (*strongly agree*).

Participants rated their narcissistic admiration and rivalry with the Narcissistic Admiration and Rivalry Questionnaire (NARQ; Back et al., 2013). Narcissistic admiration (e.g. 'I am great'; $\alpha = .88$) and rivalry (e.g. 'Other people are worth nothing'; $\alpha = .86$) were both assessed with nine items using a scale from 1 (*not agree at all*) to 6 (*agree completely*).

We determined participants' dispositional envy with the Benign and Malicious Envy Scale (BeMaS; Lange & Crusius, 2015a). Participants rated their agreement on five

items measuring dispositional benign envy (e.g. 'When I envy others, I focus on how I can become equally successful in the future' and 'I strive to reach other people's superior achievements.'; $\alpha = .88$) and five items measuring dispositional malicious envy (e.g. 'I feel ill will toward people I envy' and 'I wish that superior people lose their advantage.'; $\alpha = .90$) using a scale from 1 (*strongly disagree*) to 6 (*strongly agree*).

We also measured social desirability concerns with a revised form of the Marlow-Crowne Social Desirability Scale (Reynolds, 1982). Participants indicated for each item whether it applied to them or not (e.g. 'No matter who I am talking to, I am always a good listener'; $\alpha = .79$).

Results

Descriptive statistics and zero-order correlations of all measures included in Study 1 are displayed in Table 1. As predicted, narcissistic admiration and rivalry as well as dispositional benign and malicious envy were all positively related to comparison propensity. This pattern was more pronounced for comparison propensity related to abilities.

Furthermore, hope for success was positively correlated with narcissistic admiration and dispositional benign envy but negatively correlated with narcissistic rivalry and dispositional malicious envy. Fear of failure showed a positive relationship with narcissistic rivalry and dispositional malicious envy but was only marginally negatively correlated with narcissistic admiration and unrelated to dispositional benign envy. Narcissistic admiration and rivalry were correlated with both, dispositional benign and malicious envy. Yet, the correlations between narcissistic admiration and benign envy as well as between narcissistic rivalry and malicious envy were much stronger than the other two. Finally, social desirability showed small to medium correlations with hope for success, fear of failure, narcissistic rivalry, and dispositional malicious envy.

To test our specific predictions, we used structural equation modelling. In a first very strict path model, we tested only our hypothesized indirect effects of hope for success via narcissistic admiration to dispositional benign envy and fear of failure via narcissistic rivalry to dispositional malicious envy as they represent our essential hypotheses.³ The model fit was insufficient, $\chi^2(8) = 40.73$, $p < .001$, comparative fit index (CFI) = .90, and root mean square error of approximation ($RMSEA$) = .142, CI 95% [.101; .187]. However, we argued

³The ordering of the variables in the tested models was derived a priori from the NARC and its hypothesized relationship with benign and malicious envy, giving the more general constructs precedence to the more specific constructs. In particular, the NARC conceptualizes the narcissism facets as being based on general motivational tendencies. Furthermore, envy concerns the specific social situation of encountering upward comparison standards. This may be psychologically very important, but not reasonably the only situation in which narcissistic traits will manifest. Nevertheless, because of the cross-sectional design of the studies, it is entirely possible that other combinations of the constructs fit the data equally well or even better. We report a number of alternative models in the Supporting Information Sections S1 and S2. Notably, when we changed the order of narcissism and envy in the structural equation models so that envy preceded narcissism across all studies or the order of narcissism and achievement motivation in Study 1, we consistently did not find better fit.

²We report all data exclusions and measures for each study. Sample sizes were set in advance with the expectation of small to medium sized effects and the aim to achieve 80% power.

Table 1. Descriptive statistics and zero-order correlations of all measures in Study 1

	<i>M (SD)</i>	INCOM	INCOM ability	INCOM opinion	Hope for success	Fear of failure	Narcissistic admiration	Narcissistic rivalry	Dispositional benign envy	Dispositional malicious envy	Social desirability
INCOM ^a	3.29 (0.71)	—									
INCOM ability	3.01 (0.91)	.90*	—								
INCOM opinion	3.62 (0.76)	.77*	.44*	—							
Hope for success ^b	3.22 (0.54)	.11	.01	.21*	—						
Fear of failure ^b	2.53 (0.74)	.29*	.28*	.18*	-.29*	—					
Narcissistic admiration ^c	3.22 (0.98)	.31*	.31*	.19*	.29*	-.13 [†]	—				
Narcissistic rivalry ^c	2.40 (0.94)	.27*	.36*	.03	-.19*	.31*	.31*	—			
Dispositional benign envy ^d	3.86 (1.14)	.51*	.45*	.40*	.36*	.03	.48*	.23*	—		
Dispositional malicious envy ^d	2.32 (1.14)	.28*	.40*	-.01	-.25*	.35*	.12 [†]	.71*	.08	—	
Social desirability ^e	1.44 (0.26)	-.18*	-.24*	-.02	.21*	-.30*	.02	-.45*	-.11	-.38*	—

Note: *N* = 204.

^aIowa-Netherlands Comparison Measure (Gibbons & Buunk, 1999). Answers were given on a scale from 1 (*I disagree strongly*) to 5 (*I agree strongly*).

^bAchievement Motive Scale (Lang & Fries, 2006). Answers were given on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*).

^cNarcissistic Admiration and Rivalry Questionnaire (Back et al., 2013). Answers were given on a scale from 1 (*not agree at all*) to 6 (*agree completely*).

^dBenign and Malicious Envy Scale (Lange & Crusius, 2015a). Answers were given on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*).

^eM-C Form C (Reynolds, 1982). Answers were given on a scale from 1 (*True*) to 2 (*False*).

[†]*p* < .10.

**p* < .05.

that, generally, the underlying motivations should be related to benign and malicious envy (Lange & Crusius, 2015a). Thus, there is little reason to predict that the effects of hope for success and fear of failure on envy would be explained entirely by the narcissism facets. Therefore, we compared this model to a more lenient second model. We added direct paths from hope for success and fear of failure to both dispositional benign and malicious envy (Lange & Crusius, 2015a). This improved the model fit, $\Delta\chi^2(4)=33$, $p < .001$. The second model showed good fit to the data, $\chi^2(4)=7.73$, $p = .10$, $CFI = .99$, and $RMSEA = .068$, $CI\ 95\% [.000; .139]$. Figure 2 shows that as predicted, hope for success was positively related to narcissistic admiration and dispositional benign envy but marginally negatively related to dispositional malicious envy. In addition, fear of failure was positively related to narcissistic rivalry and dispositional malicious envy as well as dispositional benign envy. Narcissistic admiration was linked to dispositional benign envy, and narcissistic rivalry was linked to dispositional malicious envy. Crucially, the indirect effects of hope for success via narcissistic admiration to dispositional benign envy, $ab = 0.29$, $CI\ 95\% [0.27; 0.45]$, $p < .001$, and of fear of failure via narcissistic rivalry to dispositional malicious envy, $ab = 0.33$, $CI\ 95\% [0.21; 0.46]$, $p < .001$, were both significant in mediation analyses with bias-corrected bootstrap confidence intervals (5000 bootstrap re-samples; Preacher & Hayes, 2008). The findings were unchanged when we controlled for social desirability.

Discussion

Study 1 fully supports our theorizing. Narcissistic admiration and rivalry as well as dispositional benign and malicious envy were correlated with comparison propensity. This finding supports the notion that people characterized by the different facets of narcissism are indeed more prone to engage in social comparisons about how successful they are in relation to others—the precondition for experiencing envy. Furthermore, a general motivation of hope for success in trying to reach high standards of excellence predicted both narcissistic admiration and dispositional benign envy. A motivational pattern involving the fear of not living up to certain standards of excellence predicted narcissistic rivalry and dispositional malicious envy. These findings are in line with the predictions we derived from the NARC (Back et al., 2013) and replicate the relations between different kinds of achievement motivation and envy from Lange and Crusius (2015a). Furthermore, they suggest that common motivational cores indeed link narcissism to envy (Figure 1). Narcissistic admiration was related to the motivation to increase personal efforts in the face of upward social comparisons as characteristic of benign envy. Narcissistic rivalry, in contrast, was related to the motivation to harm the position of the superior person as characteristic of malicious envy. This evidence is in line with the predicted relation of narcissism and envy at the trait level. In Studies 2 to 4, we investigated whether these distinct links can also be found if envy is assessed as a state.

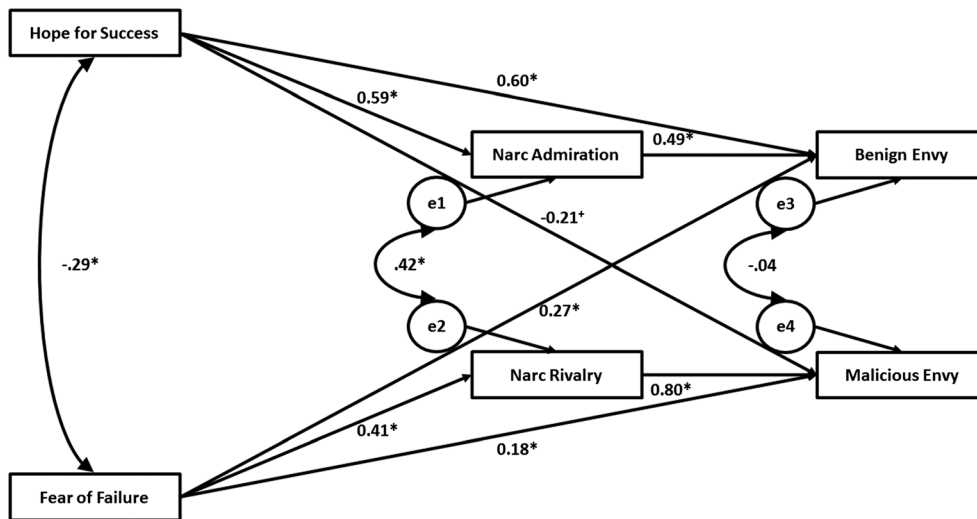


Figure 2. Direct and indirect effects of hope for success and fear of failure on narcissistic admiration and rivalry as well as dispositional benign and malicious envy in Study 1. Depicted path coefficients constitute unstandardized regression weights. $^{\dagger}p < .10$, $^*p < .05$.

STUDY 2

For Study 2, we hypothesized that people characterized by narcissistic admiration should be more prone to experience benign envy and, therefore, be more likely to report such a situation when asked for a recent episode of envy. Conversely, people characterized by narcissistic rivalry should be more prone to experience malicious envy and, therefore, be more likely to report such a situation when asked for a recent episode of envy. This corresponds to the predicted paths in the emotional and behavioural dynamics block of Figure 1.

Method

Participants

Two hundred and eleven German members of an online participant pool and German workers on CrowdFlower, a platform similar to MTurk, participated in Study 2. Fifteen (including one missing value) indicated that we should not use their data because of careless responding and were therefore excluded (Meade & Craig, 2012). In addition, 12 participants did not write down any story, 19 participants denied having ever felt envy, and 10 participants recalled a situation unrelated to envy.⁴ Thus, the final sample size was 155 with a mean age of 34.32 years ($SD = 12.40$; range: 18 – 66). Seventy-five participants were male.

Materials and procedure

We first asked participants to complete the German version of the NARQ (Back et al., 2013). The scales measuring narcissistic admiration ($\alpha = .87$) and rivalry ($\alpha = .86$) were both reliable. Subsequently, participants' task was to recall a situation in which they 'felt envy towards another person' (refer to Crusius & Lange, 2014, for a similar procedure). They

⁴In a logistic regression, neither narcissistic admiration, $B = 0.06$, $SE = 0.30$, $\chi^2(1) = 0.04$, $p = .83$, nor narcissistic rivalry, $B = -0.04$, $SE = 0.32$, $\chi^2(1) = 0.01$, $p = .92$, predicted the probability of exclusion.

should close their eyes and vividly remember the incident. Then, they should write it down as if they would talk to a good friend (Roseman, Wiest, & Swartz, 1994). Afterwards, participants rated their agreement with several items adapted from previous research on benign and malicious envy⁵ (Crusius & Lange, 2014; Lange & Crusius, 2015a, 2015b; Van de Ven et al., 2009). In the items, we referred to the envied person as *Person* and the envy object as *X*. In particular, participants indicated on eight items how much benign envy [e.g. 'I felt (benign) envy⁶ towards the person because of X' and 'I felt inspired to obtain X as well'; $\alpha = .79$], and on eight items how much malicious envy [e.g. 'I felt (malicious) envy towards the person because of X' and 'I would have liked to hurt the person'; $\alpha = .92$] they felt. In addition, they rated on three items how frustrating the experience was (e.g. 'It was frustrating that I did not have X'; $\alpha = .82$), and on three items how much the envied person deserved his or her advantage [e.g. 'That the person was in possession of X felt unfair' (reverse coded); $\alpha = .84$]. We included the latter two scales for exploratory reasons. Participants provided their answers on a scale from 1 (*does not apply at all*) to 7 (*applies very much*). The scales can be found in the Supporting Information Table S1.

Results

Zero-order correlations are displayed in Table 2. As predicted, narcissistic admiration correlated positively with benign envy, whereas narcissistic rivalry did not. Conversely, narcissistic rivalry correlated positively with malicious envy, whereas narcissistic admiration did not. In addition, narcissistic rivalry was related to decreased perceptions of

⁵In Supporting Information Section S3, we report the reasoning and results of several additional analyses, in which we exclude specific subsets of envy and narcissism items for this and the subsequent studies. These analyses speak against the possibility that our results may partly hinge on semantic overlap between items or specific, contestable items of the scales.

⁶German, along with other languages (Crusius & Lange, 2014; Van de Ven et al., 2009), has distinct terms for feeling benign (*beneiden*) and malicious envy (*missgönnen*), both translating to the English verb *to envy*.

Table 2. Descriptive statistics and zero-order correlations of all measures in Study 2

	<i>M (SD)</i>	Narcissistic admiration	Narcissistic rivalry	Benign envy	Malicious envy	Frustration	Deservingness
Narcissistic admiration ^a	3.26 (0.91)	—					
Narcissistic rivalry ^a	2.46 (0.86)	.32*	—				
Benign envy ^b	4.72 (1.17)	.17*	.04	—			
Malicious envy ^b	2.79 (1.53)	.11	.29*	-.08	—		
Frustration ^b	4.83 (1.60)	-.04	.20*	.31*	.52*	—	
Deservingness ^b	3.91 (1.89)	-.03	-.20*	.05	-.76*	-.52*	—

Note: $N = 155$.

^aNarcissistic Admiration and Rivalry Questionnaire (Back et al., 2013). Answers were given on a scale from 1 (*not agree at all*) to 6 (*agree completely*).

^bAnswers were given on a scale from 1 (*does not apply at all*) to 7 (*applies very much*).

* $p < .05$.

deservingness and more frustration. Narcissistic admiration was unrelated to these scales. Finally, in line with previous research on envy (Lange & Crusius, 2015a; Van de Ven et al., 2012), benign and malicious envy were both positively correlated with frustration, and malicious envy was negatively related to deservingness appraisals, whereas benign envy was unrelated to them.

To corroborate our theorizing, we also ran two regression analyses to control for the shared variance of the narcissism facets. First, we regressed benign envy simultaneously on narcissistic admiration and rivalry. As hypothesized, narcissistic admiration predicted more benign envy, $B = 0.22$, $SE = 0.11$, $p = .05$, whereas narcissistic rivalry was unrelated to it, $B = -0.02$, $SE = 0.12$, $p = .86$. Second, we ran the same regression with malicious envy as criterion. Also, as hypothesized, narcissistic rivalry predicted more malicious envy, $B = 0.51$, $SE = 0.15$, $p = .001$, whereas narcissistic admiration was unrelated to it, $B = 0.02$, $SE = 0.14$, $p = .86$.

Discussion

Study 2 supports our reasoning. Indeed, individuals characterized by narcissistic admiration were more likely to report benign envy. In contrast, individuals characterized by narcissistic rivalry were more likely to report malicious envy. These findings go beyond Study 1 by transferring the relation of narcissism and envy into the state domain and provide evidence for our predicted emotional dynamics (Figure 1).

Study 2 was based on recalled episodes of envy. The goal of Study 3 was to corroborate these findings by investigating whether narcissists would also reveal distinct envious reactions when being confronted with an upward comparison standard. Do narcissistic admiration and rivalry predict benign and malicious envy *in situ*?

STUDY 3

In Study 3, we aimed at conceptually replicating the findings from Study 2 in a prospective study. To investigate whether narcissism predicts emotional responses in an actual situation that can elicit envy, we confronted participants with an upward comparison standard. We hypothesized that narcissistic admiration would predict benign envy, whereas narcissistic

rivalry should predict malicious envy. To allow for the investigation of these hypotheses in an unobtrusive way, Study 3 consisted of two parts. In the first session, we measured participants' narcissistic propensities. In the second session, one week later, we confronted them with an upward comparison standard that should elicit envy. Thus, we were able to test whether narcissism measured at Time 1 predicts state envy measured at Time 2.

Method

Participants

Two hundred and thirty workers from MTurk participated in the first part of Study 3, in which we measured only their narcissistic propensities. Approximately one week later, we invited the same group of participants to the second part of Study 3, in which we presented them with an upward comparison standard. Of the original sample, 209 participants followed the invitation which amounts to a response rate of 91%. One of these participants indicated in the first part that we should not use the data and was therefore excluded (Meade & Craig, 2012). Thus, the final sample included 208 participants with a mean age of 31.75 years ($SD = 9.55$; range: 19–67). One hundred twenty-three participants were male.

MTurk workers usually participate in multiple studies each day, and we deliberately did not mention that we contacted them again because of their previous participation in a study, in which we had administered the NARQ. Thus, Study 3 allows a strong test of our predictions.

Materials and procedure

In the first part, participants completed the NARQ (Back et al., 2013). The narcissistic admiration ($\alpha = .89$) and rivalry ($\alpha = .86$) scales were both reliable. The procedure of the second part was adapted from Lange and Crusius (2015a). In general, the average pay on MTurk is rather low. Nevertheless, workers rely on MTurk as an important part of their income, which renders success in doing so highly relevant for them. Thus, we chose success on MTurk as an important comparison domain to elicit envy.

Specifically, participants read an interview with an ostensible other MTurk worker with the gender-neutral name Alex, allegedly taken from an online MTurk worker forum.

To create a highly realistic appearance of the interview, we modified the HTML source code of an actual, popular MTurk forum and embedded a screenshot of the browser window in our survey. This interview portrayed Alex as being extremely successful. Nevertheless, because the described reasons for his/her high status (a mixture of effort and luck) could be interpreted as being only partly deserved and not necessarily under personal control, Alex was ambiguous with regard to his/her potential to elicit benign or malicious envy (for a detailed description, refer to Lange & Crusius, 2015a).

Finally, participants rated their agreement with four items measuring benign envy ($\alpha = .90$), four items measuring malicious envy ($\alpha = .82$), three items to measure frustration within the situation ($\alpha = .88$), and three items to measure appraised deservingness of Alex's success ($\alpha = .82$) similar to Study 2. The items can be found in the Supporting Information Table S2.

Results

Zero-order correlations are displayed in Table 3. As predicted, narcissistic admiration but not narcissistic rivalry was positively correlated with benign envy. Narcissistic rivalry was positively correlated with malicious envy, whereas narcissistic admiration showed a weaker, marginally significant relationship. Furthermore, replicating Study 2, narcissistic rivalry but not narcissistic admiration was linked to more frustration and less appraised deservingness. Finally, both benign and malicious envy were related to more frustration, and benign envy correlated positively with deservingness, whereas malicious envy showed the reversed pattern.

To corroborate these findings controlling for the shared variance of the narcissism facets, we ran two regression analyses. First, we regressed benign envy simultaneously on narcissistic admiration and rivalry. As hypothesized, narcissistic admiration emerged as a significant predictor, $B = 0.37$, $SE = 0.10$, $p < .001$, whereas narcissistic rivalry was unrelated to it, $B = -0.17$, $SE = 0.11$, $p = .10$. Second, we repeated this analysis with malicious envy as criterion. Also as hypothesized, narcissistic rivalry emerged as a significant predictor, $B = 0.62$, $SE = 0.07$, $p < .001$. In contrast, the marginally significant zero-order relation of narcissistic admiration with malicious envy dropped to non-significance, $B = -0.07$, $SE = 0.07$, $p = .28$.

Discussion

Study 3 lends further support to our predictions. Narcissists reacted with more envy when they were confronted with an upward standard in an actual comparison situation. The findings, again, highlight the importance of differentiating between the specific forms of narcissism and envy. Narcissistic admiration predicted benign envy, whereas narcissistic rivalry predicted malicious envy. Importantly, we measured narcissism unobtrusively in an independent session to prevent that participants were aware of the connection between the narcissism measures and being exposed to the upward comparison standard. Also, we elicited envy *in situ*, substantiating the findings from Studies 1 and 2, in which we used dispositional scales and recalled emotional situations, respectively. In combination, Studies 1 to 3, thus, support the notion that narcissistic admiration and rivalry are distinctly linked with benign and malicious envy at the trait as well as the state level—in a pattern of a double dissociation.

STUDY 4

Studies 2 and 3 were also consistent with respect to the correlations of narcissistic admiration and rivalry with measures of deservingness, which we had included for exploratory reasons. In particular, narcissistic rivalry was negatively related to perceived deservingness of the envied person's success, whereas narcissistic admiration was unrelated to deservingness. Conceptually, the evaluation of the envied person's deservingness constitutes an appraisal dimension that differentiates between benign and malicious envy (Van de Ven et al., 2012). According to appraisal theories of emotion, people constantly monitor and evaluate their environment in an automatic fashion for patterns of different appraisal dimensions. Encountering such an appraisal pattern elicits an emotion (e.g. Ellsworth & Scherer, 2003). For instance, appraising a situation as unexpected, goal obstructive, and high in control potential elicits anger. Importantly, the appraisals form a core part of the emotion itself. Thus, for a more complete understanding of the processes underlying emotion elicitation in individuals, it is crucial to examine their appraisal patterns. We therefore aimed to investigate

Table 3. Descriptive statistics and zero-order correlations of all measures in Study 3

	<i>M</i> (<i>SD</i>)	Narcissistic admiration	Narcissistic rivalry	Benign envy	Malicious envy	Frustration	Deservingness
Narcissistic admiration ^a	3.15 (1.03)	—					
Narcissistic rivalry ^a	2.30 (0.94)	.34*	—				
Benign envy ^b	5.24 (1.38)	.24*	-.02	—			
Malicious envy ^b	1.78 (1.06)	.12 [†]	.52*	-.11	—		
Frustration ^b	3.36 (1.82)	.01	.37*	.13 [†]	.40*	—	
Deservingness ^b	5.98 (1.25)	-.07	-.39*	.17*	-.76*	-.55*	—

Note: $N = 208$.

^aNarcissistic Admiration and Rivalry Questionnaire (Back et al., 2013). Answers were given on a scale from 1 (*not agree at all*) to 6 (*agree completely*).

^bAnswers were given on a scale from 1 (*does not apply at all*) to 7 (*applies very much*).

[†] $p < .10$.

* $p < .05$.

such cognitive underpinnings of the relationship between narcissism and envy more closely.

We reasoned that the facets of narcissism should determine how people interpret a situation, in which they are confronted with an upward comparison standard. Past research on envy has shown that appraising an advantage of another person as undeserved promotes malicious envy (Van de Ven et al., 2012). How is narcissism connected to perceptions of how much another person deserves superior outcomes? This question is related to previous research on the role of entitlement in narcissism. Exaggerated perceptions of entitlement—implying that others are less deserving—are a common element of grandiose and vulnerable narcissism (e.g. Dickinson & Pincus, 2003). Furthermore, entitlement predicts aggressive behaviour (e.g. Reidy, Zeichner, Foster, & Martinez, 2008) and malicious envy (for example as measured by the DES, Krizan & Johar, 2012), even though the latter link has not always been robust and sometimes only indirect (Neufeld & Johnson, in press). Based on these findings, entitlement has been interpreted as having a *bridging role* in connecting vulnerable and grandiose narcissism to envy (Neufeld & Johnson, in press). However, given that entitlement characterizes grandiose narcissism it was not entirely clear why the implied link of grandiose narcissism and envy has been absent in previous research (for a discussion, refer to Krizan & Johar, 2012).

Based on the present reasoning, these ambiguities may be resolved by taking the different facets of grandiose narcissism and the forms of envy into account. According to the NARC, driven by fear of failure, people characterized by narcissistic rivalry defend threatened superiority by actively devaluing others. A viable way to accomplish this is to question other people's merit relative to own entitlement. Empirically, this link is in line with the fact that the entitlement/exploitativeness sub-facet (Emmons, 1987) of the NPI is most strongly related to narcissistic rivalry (Back et al., 2013). In other words, the motivational dynamic that underlies narcissistic rivalry seems to entail a self-protective sense of being more entitled and deserving than others. Thus, encountering an upward comparison standard should prompt individuals characterized by narcissistic rivalry to evaluate the superior position of the other as undeserved, triggering malicious envy (Van de Ven et al., 2012). Based on this reasoning, we can derive the a priori prediction that deservingness appraisals mediate the effect of narcissistic rivalry on malicious envy.

Which appraisal dimension connects narcissistic admiration and benign envy? We reasoned that it would be perceptions of high personal control about the capacity to change the situation. This hypothesis fits the NARC's notion that driven by hope for success, people characterized by narcissistic admiration seek superiority by a grandiose and assertive strategy of self-enhancement. They should, thus, be more likely to interpret an upward comparison situation as an opportunity for self-improvement. Indeed, the leadership/authority, superiority/arrogance, and self-admiration/self-absorption sub-facets of the NPI (which are most strongly related to narcissistic admiration; Back et al., 2013) are associated with a higher internal locus of control

(Watson, Sawrie, & Biderman, 1991). From a theoretical perspective, personal control should be strongly related to benign envy, as a firm belief in one's capabilities is necessary to elicit goal-directed action (Bandura, 1977). In fact, research by Van de Ven et al. (2012) has shown that appraisals of personal control contribute to benign envy. Thus, we predicted that appraisals of personal control would mediate the link between narcissistic admiration and benign envy.

Even though we focused on the predictions that personal control relates to benign envy and that deservingness relates to malicious envy, we also explored links of personal control with malicious envy, and of deservingness with benign envy. In principle, low personal control could lead to a state where people can only lash out against others, relating to malicious envy. Similarly, appraising the envied person's success as deserved could foster positive regard toward the other person, relating to benign envy. Given that this reasoning is more indirect and previous data have only partly supported these links (for deservingness, refer to Studies 1–3, for personal control; Van de Ven et al., 2012) we treated them as exploratory.

In summary, in Study 4, we tested the appraisal dimensions that may connect the narcissism facets to the envy forms. Specifically, we predicted that narcissistic admiration is associated with appraisals of higher personal control, mediating the effect on benign envy. In contrast, narcissistic rivalry should be associated with lower appraised deservingness of the envied person's success, mediating the effect on malicious envy.

Method

Participants

Two hundred and fifty MTurk workers participated in Study 4. Three participants indicated that we should not use their data and were therefore excluded (Meade & Craig, 2012). Four additional participants did not report any emotional episode and nine did not write about envy and were therefore also excluded.⁷ The final sample consisted of 234 participants with a mean age of 34.89 years ($SD = 12.02$; range: 19–73). One hundred eleven participants were male.

Materials and procedure

The procedure closely resembled the paradigm from Study 2. Participants completed the NARQ (Back et al., 2013), then recalled a recent episode of envy, and finally responded to items about this incident. There were only two changes. First, one item from the benign envy scale and one item from the malicious envy scale had to be deleted as they would have been redundant in English (Footnote 6). Second, in order to test our predictions regarding the link between narcissistic admiration and benign envy, we added three items measuring personal control (e.g. 'I experienced control over my possible actions to improve my own outcome'). The items can be found in the Supporting Information Table S3. The scales

⁷In a logistic regression, neither narcissistic admiration, $B = 0.06$, $SE = 0.30$, $\chi^2(1) = 0.04$, $p = .83$, nor narcissistic rivalry, $B = -0.04$, $SE = 0.32$, $\chi^2(1) = 0.01$, $p = .92$, predicted the probability of exclusion.

regarding narcissistic admiration ($\alpha = .88$), narcissistic rivalry ($\alpha = .87$), benign envy ($\alpha = .70$), malicious envy ($\alpha = .90$), frustration ($\alpha = .72$), deservingness ($\alpha = .85$), and personal control ($\alpha = .75$) were all reliable.

Results

Zero-order correlations can be found in Table 4. As predicted, narcissistic admiration was positively correlated with perceptions of personal control, and the latter was also related to more benign envy. However, unexpectedly, narcissistic admiration showed only a non-significant positive relationship with benign envy. In contrast, narcissistic rivalry was negatively correlated with deservingness appraisals, and the latter was also related to less malicious envy. In addition, narcissistic rivalry was linked to more malicious envy.

Furthermore, narcissistic admiration was again unrelated to deservingness appraisals and frustration. Narcissistic rivalry was only marginally positively correlated with personal control but was linked to more frustration. Benign and malicious envy were both related to more frustration. Benign envy tended to be positively correlated with deservingness. Finally, malicious envy was also positively related to personal control, yet, less strongly than benign envy.

To test our focal predictions, we used structural equation modelling. In a first strict path model, we tested only the paths from narcissistic admiration via personal control to benign envy and from narcissistic rivalry via deservingness to malicious envy, representing our essential hypotheses. The model fit was insufficient, $\chi^2(8) = 59.22$, $p < .001$, $CFI = .83$, and $RMSEA = .166$, $CI\ 95\% [.128; .207]$. However, it is reasonable to expect direct effects of narcissistic admiration and rivalry on benign and malicious envy as appraisals of personal control and deservingness are not necessarily the only possible mechanisms. For instance, the needs for prestige and for dominance underlying narcissistic admiration and rivalry could also directly contribute to envy, as these are connected to the envy forms (Lange & Crusius, 2015b). Furthermore, based on the reasoning above and in line with the zero-order correlations, we expected small relations between appraisals of personal control and deservingness with malicious and benign envy, respectively.

Therefore, in a more lenient model, we added direct paths from narcissistic admiration to benign envy and narcissistic rivalry to malicious envy. Additionally, we added paths from personal control to malicious envy and from deservingness to benign envy.

These changes improved the model fit, $\Delta\chi^2(4) = 57.63$, $p < .001$, and the new model showed excellent fit to the data, $\chi^2(4) = 1.59$, $p = .81$, $CFI = 1.00$, and $RMSEA = .000$, $CI\ 95\% [.000; .061]$. The results are depicted in Figure 3. As hypothesized, narcissistic admiration predicted increased personal control, which was related to more benign envy. The indirect effect was significant, as tested with 5000 bootstrap resamples and bias-corrected confidence interval, $ab = 0.35$, $CI\ 95\% [.09; 0.25]$, $p < .001$. Also as hypothesized, narcissistic rivalry predicted decreased deservingness, which was related to less malicious envy. The indirect effect was significant, $ab = 0.17$, $CI\ 95\% [.04; 0.31]$, $p = .01$. However, as already indicated by the zero-order correlations, there was no direct effect of narcissistic admiration on benign envy ($p = .37$), whereas narcissistic rivalry continued to predict malicious envy. Furthermore, personal control was positively related to malicious envy, yet, less strongly than benign envy. Deservingness was marginally positively correlated with benign envy.

Discussion

Study 4 extends the findings from Studies 1 through 3 by investigating specific appraisal dimensions connecting narcissistic admiration to benign envy and narcissistic rivalry to malicious envy—personal control and deservingness, respectively. Narcissists characterized by narcissistic admiration perceived that they had high control over their future outcomes, which in turn was related to benign envy, entailing motivation to invest more effort to reach the higher standard of the envied person. Narcissists characterized by narcissistic rivalry evaluated the envied person's success as undeserved, which in turn was related to malicious envy, entailing the motivation to harm the position of the competitor. These effects are in line with the notion that the facets of grandiose narcissism as conceptualized by the NARC are connected to the cognitive underpinnings of the elicitation of envy.

Table 4. Descriptive statistics and zero-order correlations of all measures in Study 4

	<i>M (SD)</i>	Narcissistic admiration	Narcissistic rivalry	Benign envy	Malicious envy	Frustration	Deservingness	Personal control
Narcissistic admiration ^a	3.29 (1.02)	—						
Narcissistic rivalry ^a	2.37 (0.97)	.41*	—					
Benign envy ^b	4.75 (1.14)	.08	-.04	—				
Malicious envy ^b	2.53 (1.49)	.18*	.44*	-.16*	—			
Frustration ^b	4.72 (1.52)	.01	.15*	.33*	.41*	—		
Deservingness ^b	4.35 (1.88)	-.09	-.19*	.13 [†]	-.65*	-.51*	—	
Personal control ^b	3.78 (1.55)	.32*	.12 [†]	.40*	.14*	.01	.01	—

Note: $N = 234$.

^aNarcissistic Admiration and Rivalry Questionnaire (Back *et al.*, 2013). Answers were given on a scale from 1 (*not agree at all*) to 6 (*agree completely*).

^bAnswers were given on a scale from 1 (*does not apply at all*) to 7 (*applies very much*).

[†] $p < .10$.

* $p < .05$.

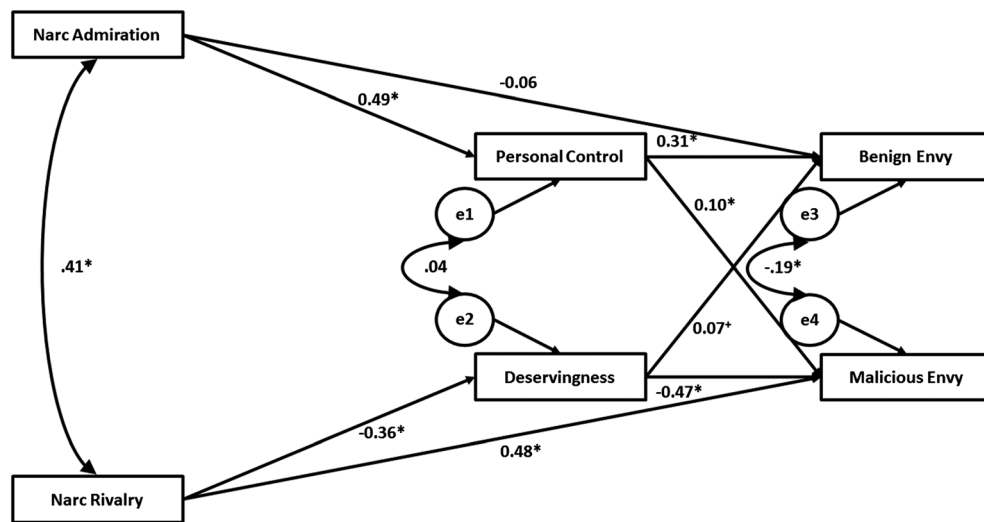


Figure 3. Direct and indirect effects of narcissistic admiration and rivalry via personal control and deservingness on benign and malicious envy in Study 4. Depicted path coefficients constitute unstandardized regression weights. † $p < .10$, * $p < .05$.

Unexpectedly, narcissistic admiration showed no direct relationship with benign envy in this study. This may be attributed to chance as Studies 1 to 3 clearly found the link (refer also to Study 5). In addition, the specific design of the study may have reduced the effect size. Notably, the correlation was also weaker in Study 2, in which we used almost the same paradigm as in Study 4. This might have happened as these two studies are based on an additional assumption. Particularly, we predicted that narcissists characterized by narcissistic admiration should be more likely to experience benign envy when being confronted with a comparison standard and should then also be more likely to recall and report such a story. As we measured narcissism and envy as traits in Study 1 and envy *in situ* in Study 3, these two studies do not rely on this assumption. Thus, the more indirect method employed in Studies 2 and 4 may have made it less likely to find the effect in Study 4.

So far, the present evidence suggests that narcissistic admiration and rivalry as well as benign and malicious envy are linked to the same underlying motivational propensities—hope for success and fear of failure. Furthermore, narcissistic admiration is distinctively related to benign envy, whereas narcissistic rivalry is distinctively related to malicious envy. These pathways are mediated via appraisals of personal control and deservingness of the envied person's success. However, our theorizing based on the NARC (Back et al., 2013) goes beyond these findings. We argue that narcissists' tendency to experience benign or malicious envy might be connected to the paradox of narcissism, namely its positive and negative social effects.

STUDY 5

In Study 5, we aimed to extend the findings of Studies 1 to 4 by showing that envious inclinations of narcissists relate to the paradox of narcissism. Thus, we aimed at testing our

predicted relationships of the emotional dynamics with the social interaction outcomes (Figure 1). Specifically, we predicted that narcissistic admiration should be linked to dispositional benign envy, mediating the effect on social potency. Benignly envious behaviour is characterized by ambition and increased performance (Lange & Crusius, 2015a, 2015b; Van de Ven et al., 2011) with the ultimate goal to reach prestige (Lange & Crusius, 2015b). This might be reflected in narcissists' social success. In contrast, narcissistic rivalry should be linked to dispositional malicious envy, mediating the effect on social conflict. Maliciously envious behaviour is characterized by hostility (Duffy et al., 2012; Lange & Crusius, 2015b) with the ultimate goal to dominate others (Lange & Crusius, 2015b). This might be reflected in the ascription of social conflict. In addition, an interesting extension to these hypotheses would be that dispositional benign envy is negatively related to social conflict. This is in line with research on envy, as other people can constitute means for enviers to improve their own position (Crusius & Lange, 2014). Thus, benignly envious individuals may try to keep superior others close to be able to emulate them.

To test these hypotheses, we approached dyads of participants who rated their own narcissistic and envious propensities as well as themselves and their partners on social potency and conflict items.

Method

Participants

Dyads of 426 students participated in Study 5. One participant was a non-native speaker who had problems understanding the items and refrained from working on all items related to the perception of the self and the other person. Therefore, we excluded this dyad from the analyses. Thus, the final sample included 424 participants with a mean age of 22.39 years ($SD = 3.36$; range: 18–38; two missings). One hundred forty-eight participants were male (two missings). Fifty-one dyads included partners with a different

gender, 48 were same-gender male dyads, and 113 were same-gender female dyads (two missing values). Partners also rated how good they knew the partner on a scale from 1 (*not at all*), 2 (*fleeting*), 3 (*rather good*), 4 (*pretty good*), to 5 (*extremely good*). The mean was 3.72 ($SD=0.86$; range: 1–5).

Materials and procedure

Participants were approached on a campus of a German University. We explicitly instructed experimenters to approach individuals who already seemed to be a dyad of people who knew each other. To ensure variance in closeness, we asked experimenters also to invite dyads who appeared to be colleagues or members of learning groups in addition to the more frequent dyads of friends. The dyad members were then separated from each other and completed the questionnaire independently of each other on a clipboard. In this questionnaire, participants completed the German versions of the NARQ (Back *et al.*, 2013) and then the BeMaS (Lange & Crusius, 2015a) similar to Study 1. The scales measuring narcissistic admiration ($\alpha=.81$), narcissistic rivalry ($\alpha=.80$), benign envy ($\alpha=.83$), and malicious envy ($\alpha=.86$) were all reliable. Afterwards, they rated how often certain items applied to them and to their dyad partner on a scale from 1 (*never*), 2 (*rarely*), 3 (*occasionally*), 4 (*often*), 5 (*very often*), to 6 (*extremely often*). The items were related to social potency ('I/My acquaintance am/is ambitious', 'I/My acquaintance get/s compliments', and 'I/My acquaintance am/is admired by others') and social conflict ['I/My acquaintance gossip/s about others', 'I/My acquaintance feel/s Schadenfreude', and 'I/My acquaintance am/is well received by others' (reverse coded)]. The items were inspired by previous research on the perception of narcissists (Back *et al.*, 2013; Carlson, Vazire, & Oltmanns, 2011). We were specifically interested in items relating to distal effects of envious responding. Benignly envious individuals typically invest more effort to attain a goal and are therefore probably ambitious (Lange & Crusius, 2015a) leading to prestige and compliments. Maliciously envious individuals tend to gossip about others and feel *schadenfreude* at their suffering (Van de Ven *et al.*, 2014; Wert & Salovey, 2004). This should ultimately undermine their social reputation. In contrast, benignly envious individuals should keep others close in order to learn from them, therefore triggering less social conflict (Crusius & Lange, 2014).

However, in both, the ratings of the self and by the partner, an exploratory factor analysis with oblimin rotation suggested a slightly different allocation of items. More precisely, these analyses each produced two factors with eigenvalues greater than 1, which each explained more than 22% of the variance. The items related to ambition, compliments, admiration, and being well received loaded on the first factor $>.52$. The items related to gossip and *schadenfreude* loaded on the second factor $>.82$. Cross-loadings were small $<.111$. In hindsight, it makes sense that the item related to 'being well received' fits the social potency domain. Thus, we averaged the ratings of the self to self-rated social potency ($\alpha=.68$) and self-rated social conflict ($\alpha=.62$) according to the results of the factor analysis. The ratings by the other

person were averaged to peer-rated social potency ($\alpha=.72$) and peer-rated social conflict ($\alpha=.74$). As we initially thought that one of our social potency items would be a reversed social conflict item, we reasoned that narcissistic rivalry might also be negatively related to self- and peer-rated social potency as measured in our study even if this is not fully in line with the model of Back *et al.* (2013). Therefore, we also predicted a negative relation of narcissistic rivalry and social potency.

Results

Zero-order correlations of all measures are displayed for two groups of randomly separated partners in Table 5. This was performed because of the dyadic data structure. The correlational patterns within persons were highly similar for the two partners. As predicted, narcissistic admiration more so than narcissistic rivalry correlated with dispositional benign envy. Both narcissistic admiration and dispositional benign envy were related to self-rated social potency. Furthermore, narcissistic rivalry correlated with dispositional malicious envy, more strongly than narcissistic admiration. Both narcissistic rivalry and dispositional malicious envy were related to self-rated social conflict. Unpredicted cross correlations between narcissistic admiration and dispositional benign envy with self-rated social conflict and between narcissistic rivalry and dispositional malicious envy with self-rated social potency were smaller or insignificant compared with the predicted pattern. Furthermore, participants' dispositional narcissism and envy were correlated with their own ratings of their partner's social potency and conflict. In addition, within-dyad correlations of narcissism, envy, social potency, and social conflict were all positive and mostly significant, thus indicating dyadic non-independence in the data.

Next, we assessed the convergence between self- and peer-rated social potency and conflict. The correlation of self- and peer-rated social potency, $r(424)=.18$, $p<.001$, and the correlation between self- and peer-rated social conflict, $r(424)=.22$, $p<.001$, were significant, but showed only modest convergence. Therefore, we analysed self and peer perceptions independently.

We proceeded by testing the effects on self- and peer-rated social perception with structural equation modelling. To control for dyadic non-independence of our data, we ran two mediated actor partner interdependence models, one for the predictions of the self perceptions of social potency and conflict and one for the predictions of the peer perceptions (Kenny, Kashy, & Cook, 2006; Ledermann & Bodenmann, 2006). As we tested almost the same initial model for self and peer perceptions, we first describe the general structure of these models and subsequently proceed to the results of each model separately.

We included indirect effects from narcissistic admiration via dispositional benign envy to social potency and from narcissistic rivalry via dispositional malicious envy to social conflict. In a first very strict model, we did not include direct effects from narcissistic admiration to social potency and from narcissistic rivalry to social conflict as our predictions pertained to indirect effects. However, as argued above, we

Table 5. Descriptive statistics, zero-order correlations within participants and partner similarity of all measures in Study 5

	<i>M (SD)</i>	Narcissistic admiration	Narcissistic rivalry	Dispositional benign envy	Dispositional malicious envy	Self-rated social potency	Self-rated social conflict	Rating of other's social potency	Rating of other's social conflict
Narcissistic admiration ^a	3.14 (0.75)	.17*	.30*	.42*	.22*	.60*	.23*	.16*	.04
Narcissistic rivalry ^a	2.19 (0.75)	.34*	.16*	.18*	.60*	.05	.51*	-.06	.29*
Dispositional benign envy ^b	3.52 (1.02)	.25*	.16*	.10	.20*	.39*	.10	.28*	-.09
Dispositional malicious envy ^b	1.96 (0.91)	.18*	.67*	.29*	.24*	.06	.44*	-.03	.19*
Self-rated social potency ^c	3.78 (0.73)	.56*	.02	.35*	.03	.10	.10	.40*	.01
Self-rated social conflict ^c	2.89 (1.03)	.20*	.43*	.18*	.36*	.22*	.17*	.08	.47*
Rating of other's social potency ^c	4.25 (0.76)	.21*	-.20*	.22*	-.11	.39*	.07	.19*	-.04
Rating of other's social conflict ^c	2.53 (1.07)	.09	.25*	.07	.19*	.12 [†]	.63*	.07	.24*

Note: $N = 424$. Within-person correlations of randomly separated partners. Partner 1 (below diagonal) and Partner 2 (above diagonal) with $n = 212$. Within-dyad correlations on diagonal in italics with $n = 212$ dyads.

^aNarcissistic Admiration and Rivalry Questionnaire (Back et al., 2013). Answers were given on a scale from 1 (*not agree at all*) to 6 (*agree completely*).

^bBenign and Malicious Envy Scale (Lange & Crusius, 2015a), 1 (*strongly disagree*) to 6 (*strongly agree*).

^cParticipant's self-rated and partner's social potency/conflict, 1 (*never*), 2 (*rarely*), 3 (*occasionally*), 4 (*often*), 5 (*very often*), to 6 (*extremely often*).

[†] $p < .10$ * $p < .05$

added paths from narcissistic rivalry to social potency and from dispositional benign envy to social conflict. All corresponding means, intercepts, and (co)variances were set equal between partners to specify the model for indistinguishable partners (Kenny et al., 2006). In addition, we allowed for actor and partner effects in both models. Although, we only hypothesized actor effects in the model for self perceptions and partner effects in the model for peer perceptions, we specified the full actor-partner pattern, to control for potential confounds of intrapersonal effects with interpersonal effects and vice versa. There were only two additional paths in the peer perception model. We added paths from narcissistic admiration and rivalry from one partner to peer-rated social potency and conflict of the other partner, although, as stated above, we did not include the direct effects of the partner's own narcissism facets on the corresponding social outcome. This was reasonable as the other partner rated the social outcome whereby his or her personality might have biased this judgment (Table 5). Thus, even in the absence of direct effects, this potential bias needed to be controlled. The full model that we initially tested for self and peer perceptions can be found in the APPENDIX (Figure A6).

For self perceptions, the model fit was insufficient, $\chi^2(54) = 265.06$, $p < .001$, $CFI = .69$, and $RMSEA = .136$, $CI\ 95\% [.120; .153]$. However, including the direct intrapersonal and interpersonal paths from narcissistic admiration to self-rated social potency and from narcissistic rivalry to self-rated social conflict increased the model fit significantly, $\Delta\chi^2(4) = 194.86$, $p < .001$, with the new model showing good fit to the data, $\chi^2(50) = 70.20$, $p = .03$, $CFI = .97$, and $RMSEA = .044$, $CI\ 95\% [.014; .066]$. The results are depicted

in Figure 4. As the model was specified for indistinguishable partners, the results are depicted for only one partner, and interpersonal paths were omitted for clarity. As hypothesized, narcissistic admiration predicted dispositional benign envy, mediating the effect on self-rated social potency. The indirect effect was significant, as tested with 5000 bootstrap resamples and bias-corrected confidence interval, $ab = 0.07$, $CI\ 95\% [0.04; 0.41]$, $p < .001$. Conversely, narcissistic rivalry predicted dispositional malicious envy, mediating the effect on self-rated social conflict. The indirect effect was significant, $ab = 0.14$, $CI\ 95\% [0.01; 0.27]$, $p = .04$. The direct positive effects of narcissistic admiration and rivalry on self-rated social potency and conflict were still significant. This may indicate either that envy is not the only mediator of the relations between narcissism and social potency and conflict or that the direct effects are based on shared method variance because of narcissists' tendencies for self-enhancement (John & Robins, 1994). Finally, the negative effect of narcissistic rivalry on self-rated social potency was significant, whereas the effect of dispositional benign envy on self-rated social conflict was not.

Do the indirect effects of narcissistic admiration via dispositional benign envy on social potency and of narcissistic rivalry via dispositional malicious envy on social conflict also emerge in the perception of the dyad partner? The strict model, as described above, showed good fit to the data, $\chi^2(52) = 75.04$, $p = .02$, $CFI = .96$, and $RMSEA = .046$, $CI\ 95\% [.016; .068]$. The results are depicted in Figure 5. As hypothesized, narcissistic admiration predicted dispositional benign envy, which was related to higher peer-rated social potency. The indirect effect was significant, as tested with

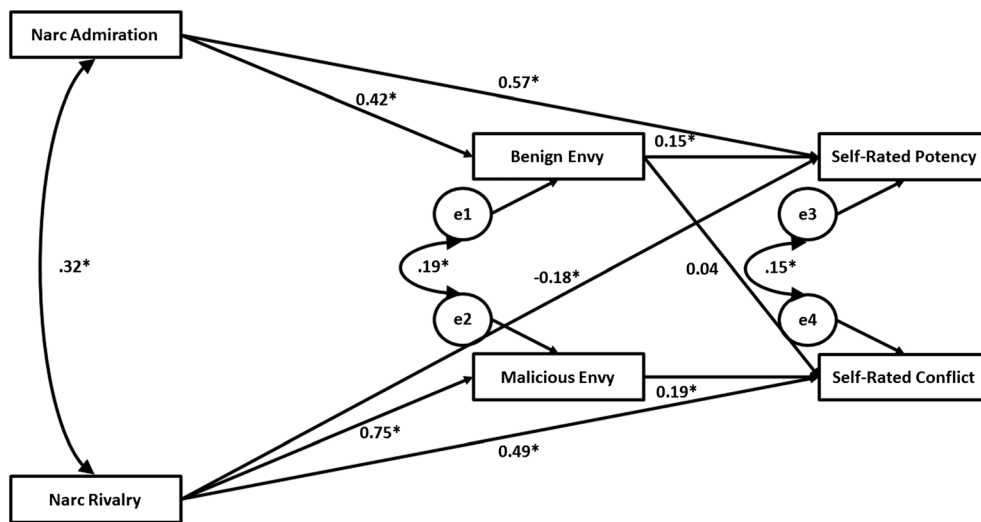


Figure 4. Direct and indirect effects of narcissistic admiration and rivalry via dispositional benign and malicious envy on self-rated social potency and conflict in Study 5. Depicted path coefficients constitute unstandardized regression weights. † $p < .10$, * $p < .05$.

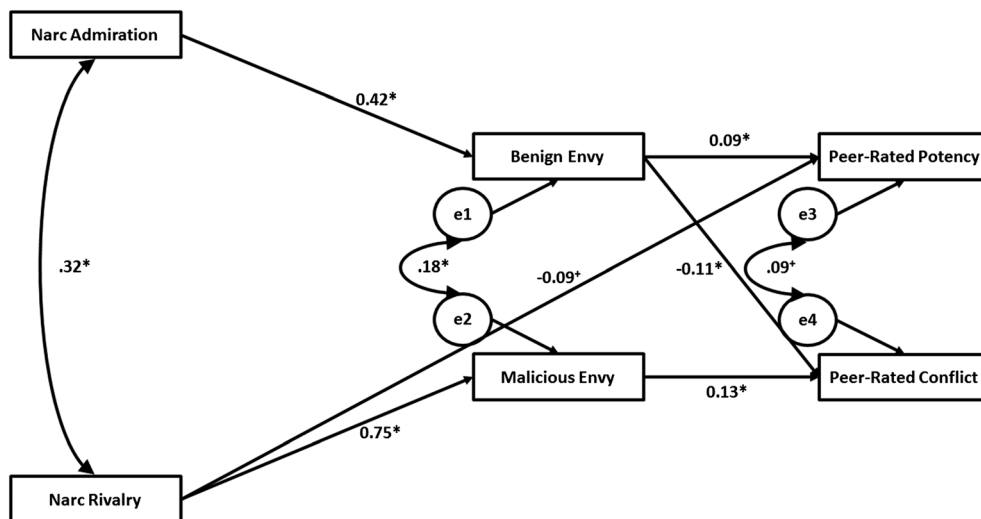


Figure 5. Direct and indirect effects of narcissistic admiration and rivalry via dispositional benign and malicious envy on peer-rated social potency and conflict in Study 5. Depicted path coefficients constitute unstandardized regression weights. † $p < .10$, * $p < .05$.

5000 bootstrap re-samples and bias-corrected confidence interval, $ab = 0.04$, CI 95%[0.0; 0.07], $p = .01$. Furthermore, narcissistic rivalry predicted dispositional malicious envy, which was related to higher peer-rated social conflict, $ab = 0.09$, CI 95%[0.00; 0.19], $p = .051$. Besides, as in the model for self perceptions, narcissistic rivalry marginally negatively predicted peer-rated social potency. Here, the negative effect of dispositional benign envy on peer-rated social conflict was also significant.⁸

An alternative model including the direct effects of narcissistic admiration on peer-rated social potency and narcissistic rivalry on peer-rated social conflict did not significantly improve the model fit, $\Delta\chi^2(2) = 3.21$, $p = .20$, and was therefore rejected. This finding supports the

⁸The findings of this model are unchanged when we control for gender composition or the averaged closeness of the dyad partners.

interpretation that the direct paths in the self-perception model were at least partially because of self-enhancement bias in narcissists' self-reports and highlights the value of a multi-method approach.

Discussion

The findings of Study 5 are in line with the notion that envy is linked to the paradox of narcissism. We conceptually replicated the distinct pathways from narcissistic admiration to dispositional benign envy and from narcissistic rivalry to dispositional malicious envy. Moreover, these pathways were also distinctively related to the frequency with which behaviours related to social potency and conflict were performed. Envy mediated the effects of narcissism on social potency and conflict in self perceptions and in perceptions by peers, providing a

convergent pattern. This constitutes evidence for the notion that emotional processes related to envy are connected to narcissists' social functioning. Note that envy was measured as a trait and not as a state in Study 5, thereby providing only indirect support for the notion that envious reactions might mediate the effect of narcissism on social outcomes within one particular situation. Arguably, however, many social effects of narcissism via envy should take some time to manifest in observable outcomes, turning dispositional assessment of envy into a valid means to investigate our hypotheses. For instance, improvement motivation and increased performance triggered as part of benign envy might lead to admiration by peers only after a certain amount of time has passed. Thus, even though it should be worthwhile to investigate how narcissists' emotional states are linked to social outcomes in particular envy situations, there is also merit in the dispositional approach taken here.

GENERAL DISCUSSION

Summary and implications

Converging evidence of five studies supports the proposition that narcissists have an enhanced propensity to be envious. Different forms of narcissism and envy shared motivational orientations and were distinctively linked to each other, explaining narcissists' effects on social potency and social conflict. Specifically, hope for success was linked to narcissistic admiration, a motivational basis that tied narcissistic admiration to benign envy (Study 1). The latter association (which emerged in Studies 1, 2, 3, and 5) was mediated by the perception of high personal control (Study 4). These ambitious behavioural inclinations characterizing benign envy were related to the ascription of social potency by the self and others (Study 5). Fear of failure was linked to narcissistic rivalry, a motivational basis that tied narcissistic rivalry to malicious envy (Study 1). The latter association (which emerged in Studies 1–5) was mediated by low deservingness of the envied person's advantage (Study 4). These hostile behavioural inclinations characterizing malicious envy were related to the ascription of social conflict by the self and others (Study 5). Despite their positive correlation, narcissistic admiration and rivalry were distinctively connected to benign and malicious envy, in a way that constituted the full pattern of a double dissociation. These findings converged in methodological diverse ways with German (Studies 2 and 5) and US American participants (Studies 1, 3, and 4). They were revealed when envy was measured as a trait (Studies 1 and 5) and as a state in a recall task (Studies 2 and 4) or elicited in situ (Study 3). Finally, the distinct associations with social potency and conflict were not only found for self-evaluations but also for the perception by acquaintances (Study 5).

These findings support the widely held assumption that grandiose narcissists are prone to experience envy. In fact, this notion has often been stressed in scholarship on narcissism (American Psychiatric Association, 2000; Campbell & Miller, 2011; Kernberg, 1975) and relied upon in measures and experimental stimuli on narcissism (Campbell et al., 2002; Raskin & Hall, 1979). Yet, the evidence for a link between

grandiose narcissism and envy was only indirect and inconsistent in previous research (Gold, 1996; Krizan & Johar, 2012; Neufeld & Johnson, in press). The present results suggest that the relation of narcissism and envy is more complex than has been previously assumed, corroborating the incremental value of differentiating between two facets of grandiose narcissism and the two forms of envy. Particularly, depending on their narcissistic facet, individuals in our studies reacted with distinct kinds of envy, in line with their underlying motivational tendencies. These diverging emotional reactions were related to both, narcissists' upward directed as well as their hostile behavioural inclinations, suggesting a link of envy to the paradox of narcissism. The present work also provides a framework to integrate previously scattered and conflicting evidence on the behavioural outcomes of narcissism such as narcissists' propensity to be competitive (Morf & Rhodewalt, 2001; Morf et al., 2000; Raskin & Terry, 1988) or their hostile behaviours directed at the better-off (Morf & Rhodewalt, 1993; South, Oltmanns, & Turkheimer, 2003).

Another example of how the present framework may shed light on empirical inconsistencies concerns the role of entitlement in the relationship of narcissism and envy. Previous research has found that an exaggerated sense of entitlement, which is a common element of grandiose and vulnerable narcissism, predicts envy. Nevertheless, it was unclear why this relationship was not reflected in a direct connection between grandiose narcissism and envy (Krizan & Johar, 2012; Neufeld & Johnson, in press). The present reasoning suggests that this link is specific to the narcissistic rivalry facet of grandiose narcissism and malicious envy. At least indirectly in support of this argument, the link between the two was mediated by deservingness appraisals of the envied person's superior outcome in Study 4. Notably, however, we did not measure perceived own state or trait entitlement in the current research. Thus, future research is needed to investigate whether this connection holds for narcissistic entitlement.

The current research offers converging empirical support for all stages of the dynamic of narcissists' motivations and social outcomes, as conceptualized in Back et al.'s (2013) NARC. Furthermore, it establishes envy as a potential emotional pathway connected to this dynamic and suggests that narcissists' cognitive appraisal patterns in social comparison situations contribute to it. Such an integrated perspective allows new predictions for research on narcissism. For instance, state and trait benign envy have been linked to increased performance and persistence, as shown in creativity tasks (Lange & Crusius, 2015b; Van de Ven et al., 2011) or the speed of long-distance runners (Lange & Crusius, 2015a). In contrast, research on narcissists' reactions to upward comparisons has mainly focused on the social repercussions of such comparisons (e.g. Morf & Rhodewalt, 1993; South et al., 2003). This approach should be complemented by research focused on upward directed motivation. As described, such motivational effects might be prevalent at the behavioural level as well as at the cognitive level, for example with regard to goal-related attentional consequences (Crusius & Lange, 2014; Gu, He, & Zhao, 2013).

Behavioural consequences are also important when it comes to the differences between narcissistic grandiosity and narcissistic vulnerability (Pincus *et al.*, 2009). The latter has been related to envy as measured with the DES (Krizan & Johar, 2012) and displaced forms of aggression even in the absence of ego threats (Krizan & Johar, 2015). As we discussed more extensively above, the DES is focused on malicious envy (Lange & Crusius, 2015a). As benign envy is connected more strongly to upward motivational tendencies, we expect that vulnerable narcissism should be solely related to malicious envy as measured with the BeMaS. Then, it could be argued that vulnerable narcissists project their malicious envy feelings onto unevaluated third parties in upward comparison situations and therefore behave aggressively towards them.

Furthermore, the current findings also provide new and intriguing insights into research on envy. For example, they suggest that person characteristics related to status concerns, such as narcissism, could interact with situational affordances. Narcissistic admiration and rivalry are important status-related dispositional variables that distinctively predict benign and malicious envy. This adds another perspective to the social-functional approach that may explain the elicitation of envy (Crusius & Lange, *in press*; Lange & Crusius, 2015b). In particular, envy has been shown to be a social-functional response to another person's status display expressed via pride. Benign envy is the response to authentic pride of a superior person. Malicious envy is the response to hubristic pride of a superior person. This research is in line with the notion that envy's primary goal is the regulation of social status and hierarchies. Narcissists characterized by narcissistic admiration may react strongly to competitors displaying authentic pride. These individuals signal prestige, a respectable and sociable sign of high status (Cheng, Tracy, & Henrich, 2010; Cheng *et al.*, 2013), whereby they represent important means for narcissists to boost their ego. In contrast, narcissists characterized by narcissistic rivalry might react more strongly to competitors expressing hubristic pride. These individuals signal dominance, a disliked endorsement of fixed hierarchies (Cheng *et al.*, 2010, 2013), whereby they represent significant threats to narcissists' egos. Generalizing from this approach, other status related dispositional propensities might show similar effects. For instance, people high in social dominance orientation or right-wing authoritarianism defend status through prejudice towards low power groups, whereas people with a conspiracy mentality question hierarchies via prejudice towards high power groups (Imhoff & Bruder, 2014). Envy could thus be an important emotional process that can explain various behaviours of individuals with strong status concerns.

Limitations

The studies presented here are not free from limitations. As a main caveat, it is important to note that the conclusions are based on cross-sectional data (Studies 1, 2, 4, and 5) as well as on prospective data in the short term (Study 3). Thus, the data do not allow for strong conclusions about the causal chain of the investigated constructs. Even though the

ordering of the variables in the models was derived from a priori reasoning and alternative models do not provide better fit to the data (Footnote 3), longitudinal evidence or, where possible, experimental manipulations of envious states and their underlying appraisals could provide more insight not only into the causal process chains that link envy and narcissism but also into their outcomes.

From our perspective, it would be particularly interesting to investigate how narcissists' envious reactions develop over time and how they affect their social life in the long term. An interesting question for future research can be derived from the NARC (Back *et al.*, 2013). According to this model, the social outcomes of narcissism—social potency and conflict—feed back into narcissists' motivational dynamics as an ego boost or an ego threat. If benign and malicious envy are emotional processes contributing to the social consequences of narcissistic admiration and rivalry as suggested here, they should also have longitudinal boosting or threatening effects themselves. Even though equally frustrating in the situation, benign envy prompts upward directed action aimed at improving the personal outcome (Lange & Crusius, 2015a, 2015b; Van de Ven *et al.*, 2011). Thus, if successful, it might lead to overall higher status and possibly more positive affect over time. In contrast, even if malicious envy is a functional response in the sense that it may reduce frustration immediately after a confrontation with an upward comparison standard, it might be disadvantageous over longer periods of time. Therefore, the continuing status decrement might foster negative affect in the long run and therefore pose a more continuous ego threat.

A second limitation of the current work results from the measures of narcissistic and envious responding. Our research relies on self-reported narcissism and envy and peer-reported behavioural tendencies. In future work, this approach should be complemented with research that investigates envious behaviour more directly, for example by observing narcissists' social interactions and their outcomes in situations that involve social comparisons. Another promising way to investigate these envious states is the collection of experience-sampling data in order to track the everyday dynamics of envy and narcissism in naturalistic settings. Using these approaches may provide direct evidence for the behavioural links of narcissists' envious responding and its social outcomes. Furthermore, they may allow for investigations of the scope of these links.

The reported results are in line with the notion that narcissists' envious behaviour is perceived by others and may thus contribute to narcissism's diverging social outcomes. However, it is important to acknowledge that the current data are silent about the amount of variance in narcissistic responding that can be explained by envy. Specifically, we did not include all facets of narcissists' social potency and conflict. In fact, we chose dimensions theoretically related to distal effects of envy. As an advantage of this approach, the data suggest that narcissism is linked to known outcomes of envy that have not yet been investigated in narcissism research, such as an increased propensity for gossiping or *schadenfreude*. Even though these links are suggestive, it should, again, be fruitful to collect more direct and broader evidence on how narcissism prompts certain

behaviours in envy situations and how these are picked up by others. For example, we did not cover other narcissists' tendencies such as being seen as humorous and physically attractive (Back et al., 2013, 2010; Dufner et al., 2013). It is unclear whether envy can explain these effects. If benign envy leads to ambitious striving for an upward goal upon frustrating confrontations with superior others, humor might not be the most likely response. Regarding attractiveness, it could even be predicted that envious reactions might decrease perceptions of attractiveness because these initially communicate low status (Dijkstra & Buunk, 1998). However, dispositional benign envy not only motivates the envier to better the personal situation but also fosters actual improvement behaviour (Crusius & Mussweiler, 2012; Lange & Crusius, 2015a, 2015b; Van de Ven et al., 2009). It could therefore lead to high achievement in the long run. This might increase humor because of a more positive evaluation of the self and higher attractiveness because of higher status. It would be interesting for future research to contrast these different accounts.

CONCLUSION

The Evil Queen in Snow White is a primary example of a narcissist. She cannot help looking in the mirror and, thereby, exposes her desperate need to verify her superior attractiveness. The current framework suggests that once she is no longer the fairest of all, she finds herself in a psychological dilemma. In line with her narcissistic tendencies she should loathe the threatening weakness revealed by her envious feelings, yet, she has a strong motive to restore her grandiose self. The tale recounted by the Brothers Grimm reflects that this dilemma can be resolved by envy. However, the deceitful gift of a poisoned apple represents only one side of potential narcissistic behaviour.

The findings presented here lend credence to the widely held conviction that narcissists are envious, for which evidence has long been elusive. The current research supports the notion that the different forms of envy disentangle narcissists' Janus-faced behaviour toward others. Envisers characterized by narcissistic admiration may try to improve their performance, which is connected to benign envy and social approval. Envisers characterized by narcissistic rivalry may try to harm the envied person's position, which is connected to malicious envy and a proneness to engage in social conflict. Even though these emotional pathways lead to strikingly different consequences, they nevertheless appear both to be spurred in an attempt to mitigate the Evil Queen's dilemma.

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SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article at the publisher's web-site.

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APPENDIX

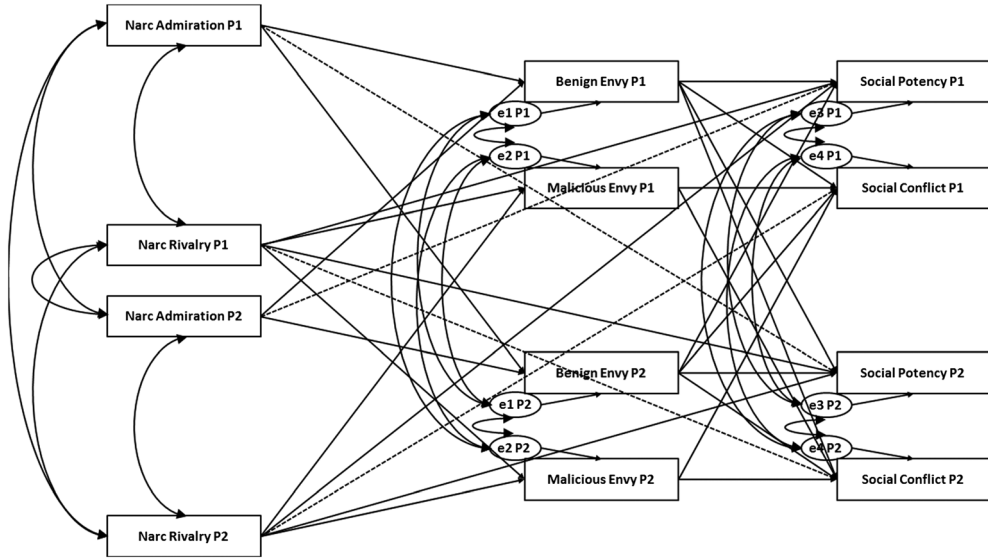


Figure A1. Dyadic model tested in Study 5 for self and peer perception. Means, intercepts, and (co)variances of constructs from Partner 1 (P1) were set equal to the corresponding means, intercepts, and (co)variances from Partner 2 (P2). The same applies to paths within each mediation model. Dotted paths were included only in the peer perception model.