Needing Others to Know You're Good: Narcissists' pride in success is contingent on peer reactions

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Author Note

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Author Contributions:

- EJM: Conceptualization, Formal Analysis, Investigation, Methodology, Visualization, Writing – original draft, Writing – review & editing
- JLT: Conceptualization, Funding Acquisition, Investigation, Methodology, Resources, Supervision, Writing- review & editing

ABSTRACT

Prior research shows that narcissists respond to failure by aggressing outwards and defensively blaming others, but less is known about their responses to success. In four studies with American adults and Canadian undergraduates (total $N = 3463$), participants recalled a real-life success or failure and reported their feelings of pride in response (Studies 1, 2, and 4), or experienced success in a controlled, laboratory experiment and reported pride in the success after receiving either positive or negative social feedback (Study 3). Across studies, two key finding emerged. First, narcissists reported greater pride following failure than those low in narcissism, and this difference was stronger than in a neutral control condition, consistent with prior research on narcissistic defensiveness. Second, in response to success, narcissists' feelings of pride were contingent on their peers' respect and admiration, such that they felt less pride than non-narcissistic individuals following successes that did not make them feel prestigious in the eyes of their peers. This pattern of emotional responding was unique to narcissism and did not emerge for self-esteem. Results from this multi-method investigation suggest that narcissists show a distinctive pattern of pride in response to success and failure. They respond defensively to failure, reporting greater pride than non-narcissists, and this pattern cannot be attributed to baseline, trait-level differences. In contrast, following success, narcissists' emotions are contingent upon perceiving respect and admiration from their peers, consistent with recent theoretical perspectives on narcissism that position status-striving as narcissists' fundamental motive.

Public Significance Statement

Narcissism is a dynamic personality characteristic that has long been of interest to both academic researchers and the public at large. Previous research has found that narcissistic individuals respond to failure with aggression and defensiveness, but much less attention has been devoted to understanding how narcissistic individuals respond to success. In the present research, we find that narcissistic individuals feel greater pride in response to their failures compared to less narcissistic individuals, but not in response to success. In fact, we further find that narcissists' pride in success is contingent on the reactions of their peers, such that they feel less pride than non-narcissistic individuals when they perceive a negative social response to their success. These findings provide new insights into narcissistic individuals' emotional tendencies and social motivations, largely consistent with theoretical perspectives that position status-striving as the primary motivation of narcissism.

INTRODUCTION

"I know now that when one loses one's good looks, whatever they may be, one loses everything... I am less to you than your ivory Hermes or your silver Faun. You will like them always. How long will you like me? Till I have my first wrinkle, I suppose."

- Dorian Gray, *A Picture of Dorian Gray* by Oscar Wilde, 1890.

In Oscar Wilde's *A Picture of Dorian Gray,* the beautiful Dorian Gray is plagued by the belief that his physical appearance is, and always will be, the sole basis of all that is good in his life. Gray projects this belief onto the artist Basil Hallward, communicating the insecurity that ultimately drives Gray to offer his soul in return for the eternal preservation of his beauty. In the quotation above, Gray informs Hallward that he does not value himself intrinsically and believes that others do not either. Gray's self-worth is entirely determined by the admiration of others, and he is desperate to make his beauty permanent because it is the only way he can conceive of feeling worthy throughout his life.

In the story of Dorian Gray, Wilde depicts a grandiose narcissist[1] completely obsessed with his own appearance, and suggests that this individual's self-worth is dependent on others' perceptions of him. Inspired by this classic novel, the present research examines the extent to which the perceived appraisals of others influence narcissists' feelings about themselves in response to events that, for most people, lead to increased self-worth (i.e., successes at school or work). Building on several theories that consider status attainment the primary motivation of grandiose narcissists (e.g., Back et al., 2013; Campbell & Foster, 2007; Grapsas et al., 2020; Mahadevan et al., 2019; Morf & Rhodewalt, 2001; Zeigler-Hill et al., 2019), we conducted four studies, with seven distinct samples, testing whether narcissists' pride in their successes is contingent upon receiving positive reactions from others. If narcissists are driven to succeed by a

[1] Throughout the article, we use the "narcissist" and "narcissistic individual(s)" to refer to individuals high in grandiose narcissism.

deeper motivation to attain high status, then their feelings of pride in their successes might depend on the extent to which those successes raise their status. It is therefore possible that only those successes that lead to perceptions of high social status will engender pride in narcissists, whereas successes that fail to elicit others' respect and admiration will not. By testing this novel hypothesis, the present research seeks to advance our understanding of the emotional factors underlying narcissists' drive to succeed and the ways in which they evaluate their successes and themselves.

What is the role of status striving in grandiose narcissism?

Grandiose narcissism is a disposition defined by self-importance, entitlement, and a tendency to be arrogant and aggressive but also gregarious, charming, and charismatic (Back et al., 2013; Kirzan & Herlache, 2018; Miller et al., 2021). Independent lines of research have found that the core of grandiose narcissism is constituted of agentic, extraverted traits and behaviors along with reactive, antagonistic traits and behaviors (Ackerman et al., 2011; Back et al., 2013; Crowe et al., 2019). In one conceptualization, the agentic components are aggregated into a facet known as *narcissistic admiration*, represented by tendencies to strive for uniqueness, concoct grandiose fantasies about oneself, and display charm and charisma in social interactions. The antagonistic components comprise a facet known as *narcissistic rivalry*, represented by a tendency to strive for supremacy, devalue others, and behave aggressively in response to perceived provocations or threats (Back et al., 2013). In both cases, narcissists are thought to show these patterns of goals and behaviors because they are chronically motivated to attain attention, admiration, and deference from others—three indicators of social status (Campbell & Foster, 2007; Grapsas et al., 2020; Ziegler-Hill et al., 2019). To do so, narcissists promote and exaggerate their agentic qualities like attractiveness and intelligence (i.e., the admiration

pathway; e.g., Küfner et al., 2013; Härtel et al., 2021; Wille et al., 2019), and derogate and aggress against others whom they consider threats (i.e., the rivalry pathway; e.g., Bushman & Baumeister, 2003; Carlson & Lawless Desjardins, 2015; Reijntjes et al., 2016; Twenge & Campbell, 2003).

These findings have led to the emergence of a common theoretical theme: narcissists' primary social motivation is to raise their social status (e.g., Back et al., 2013; Campbell & Foster, 2007; Grapsas et al., 2020; Mahadevan et al., 2019; Morf & Rhodewalt, 2001; Zeigler-Hill et al., 2019). Theories differ, however, in the proposed processes underlying narcissists' chronic status-striving. Some argue that narcissists have no overarching status goal, but simply desire others' attention and admiration for the sake of basking in moments of glory (e.g., Campbell & Foster, 2007). Others, including longstanding psychoanalytic accounts (e.g., Freud, 1914; Kernberg 1970, 1975; Kohut, 1971, 1972, 1977) and more recent theories building on them (Bosson et al., 2008; Gregg & Sedikides, 2010; Kernis, 2003; Morf & Rhodewalt, 2001; Tracy & Robins, 2003), argue that narcissists seek social status to combat their low implicit self-esteem. From this latter perspective, narcissists' grandiose self-concepts serve as a defense mechanism against an underlying sense of shame and insecurity, which makes their explicit, inflated self-concept necessarily fragile. They thus need constant propping up via social feedback that is consistent with their (explicit) aggrandized self-perceptions (Morf & Rhodewalt, 2001; Sedikides et al., 2019). As a result, narcissistic individuals seek out situations that provide the opportunity to impress others and gain status (e.g., Heyde et al., 2023; Wallace & Baumeister, 2002), and they defensively reframe ambiguous or negative experiences in ways that support their inflated self-image (e.g., Rhodewalt & Eddings, 2002).

Still other theories argue that narcissistic individuals' desire to self-promote and self-protect is not a response to low implicit self-esteem, but rather an explicitly conscious and hyperactive motivation to cultivate and maintain a grandiose self-image (e.g., Back et al., 2013; Grapsas et al., 2020; Zeigler-Hill et al., 2019). According to this perspective, all individuals view themselves in an overly positive light (Taylor & Brown, 1988), but narcissists do so to an extreme degree. They are not satisfied with mere positivity; they seek to cultivate a grandiose self-image, and status striving is a means to this end. More specifically, the Status Pursuit in Narcissism (SPIN) model posits that narcissists' status-seeking motives are so consistently activated that these individuals pursue social status in multiple ways and across a range of situations, even when status-seeking is inappropriate and likely to backfire (Grapsas et al., 2020; Zeigler-Hill et al., 2019). Supporting this account, narcissism predicts seeking status through distinct, and often contradictory, strategies, including seeking dominance over others and inspiring admiration and voluntary deference from peers (Zeigler-Hill et al., 2019). This extreme status motive leads to heightened vigilance to status-related cues, selection into situations with opportunities for status gain, and aggressive responses to status-threats or loss of status. Despite the potential for maladaptive outcomes over time (e.g., Paulhus et al., 1998), narcissists' strong and unwavering motivation to advance their status may be functional by leading to short-term status gains and resultant positive outcomes, especially in domains like romantic attraction (Holtzman & Donnellan, 2015) or hiring (Paulhus et al., 2013).

Despite differences among these theories, they are united in the suggestion that narcissists are strongly motivated to gain and maintain social status. This feature of narcissism marks a critical difference from high self-esteem, a form of self-regard characterized by a sense of self-worth that is not predicated on grandiosity, entitlement, or superiority (Kernis, 2003;

Rosenberg, 1965). Non-narcissistic individuals with high self-esteem tend to accept and value themselves, faults included, and do not rely on feeling superior to others to feel good about themselves (Brummelman et al., 2016). These individuals experience pride in achievements and disappointment in failures, but these specific feelings and events are unlikely to substantially change their overall self-concept (Kernis, 2003).

Indeed, self-esteem and narcissism are distinct but related constructs; narcissistic people tend to have high self-esteem, but this association is driven by the self-promotive, agentic aspects of narcissism. In fact, several of the more adaptive correlates of narcissism – such as subjective well-being – are largely due to the overlap between agentic narcissism and high self-esteem (Brummelman et al., 2016). In contrast, the more self-protective, antagonistic aspects of narcissism tend to be associated with low self-esteem (Back et al., 2013; Crowe et al., 2019).

Developmentally, narcissism and self-esteem are thought to emerge from distinct core beliefs that children form about themselves in response to their interactions with caregivers. Narcissists tend to develop a sense of superiority and competitiveness as a result of caregivers' overvaluation followed by harsh criticism when children fail to live up to their caregivers' lofty expectations. The importance caregivers place on superiority over others may underlie narcissists' consistent pursuit of social status and their need for validation to reinforce their precarious sense of self (Brummelman et al., 2016). In contrast, caregivers who display warmth are more likely to foster high self-esteem in children by instilling an intrinsic sense of worth that does not need to be justified or proven (Brummelman, 2018; Brummelman et al., 2015).

How do narcissistic individuals respond to negative self-relevant events and status loss?

Many studies have investigated narcissistic individuals' reactions to events that could trigger status loss, such as failure and social rejection. Findings consistently show that narcissists

respond to these events with anger, often manifested as aggression, typically toward whomever they perceive to be responsible for the negative outcome (e.g., Back et al., 2013; Baumeister et al., 2000; Bushman & Baumeister, 1998; Horton & Sedikides, 2009; Rhodewalt & Morf, 1998; Stucke & Sporer, 2018; Twenge & Campbell, 2003). This effect has been replicated numerous times, and two recent meta-analyses of hundreds of studies with hundreds of thousands of participants provide strong evidence for a positive association between narcissism and aggression across contexts, but especially in response to provocation (Du et al., 2022; Kjaervik & Bushman, 2021). Theoretically, this pattern of findings suggests that narcissists tend to blame others for negative outcomes, which can help mitigate the self-concept threat posed by negative feedback.

Narcissists' aggressive responses in this situation suggest that these individuals care deeply about how they are evaluated by others. Aggression comes with costs and potential consequences that narcissists would have little reason to evoke if they viewed others' feedback as meaningless or unimportant. Furthermore, narcissists' investment in others' views of them might explain another common narcissistic response to negative feedback: defensiveness, or a tendency to devalue negative feedback as baseless and inaccurate (e.g., Campbell et al., 2000; Hart et al., 2020; Hepper et al., 2022; Horton & Sedikides, 2009; Horvath & Morf, 2009; Kernis & Sun, 1994). Rejecting threatening information as invalid can help narcissistic individuals maintain or restore their grandiose self-image. This pattern of defensiveness is observed in the well-replicated finding that narcissistic people report more positive thoughts and feelings about themselves in response to failure and negative feedback, compared to non-narcissists (e.g., Campbell et al., 2000; Hart et al., 2020; Horton & Sedikides, 2009; Rhodewalt & Eddings, 2002; Twenge & Campbell, 2003; Wallace et al., 2009). In summary, narcissists' tendency to respond

defensively and aggressively to negative feedback may serve the purpose of reinforcing their grandiose sense of self by allowing them to view negative feedback or failure as unwarranted responses from unqualified evaluators, and to demonstrate dominance over those evaluators via aggression.

How do narcissistic individuals respond to positive self-relevant events and status gains?

Given their preoccupation with seeking status, as well as the fervor with which they dismiss and avenge threatening feedback, one might expect narcissists to respond more positively to successes than non-narcissists. These events should satisfy their desire for self-promotion and provide the additional benefit (at least momentarily) of reinforcing their inflated sense of self. We might therefore expect narcissistic individuals to feel greater positive self-relevant feelings, such as pride, in response to success compared to people low in narcissism.

Surprisingly, however, studies show mixed results on this issue. Consistent with our theorizing, some studies find that narcissists feel more positively than non-narcissists in response to success; for example, Zeigler-Hill and colleagues (2019) found that individuals high in narcissistic admiration reported higher state self-esteem on days when they felt high in status, and similar associations have emerged using other measures of narcissism (Kroencke et al., 2023; Rhodewalt et al., 1998; Rhodewalt et al., 2001). Another study found that narcissists reported greater positive affect than non-narcissists in response to tasks that made them feel powerful, though they did not show predicted non-verbal facial cues of positive affect (e.g., smiling; Grapsas et al., 2022).

Other studies, however, found no relationship between narcissism and emotional responses to positive events (e.g., Kernis & Sun, 1994; Zeigler-Hill, et al., 2010), and one study found that narcissistic children blushed more than less narcissistic children, signifying *greater*

embarrassment, following mild praise (Brummelman et al., 2018). In addition to these mixed results across studies, another study found that narcissistic children reported both greater positive and greater negative affect than others after succeeding on an experimental task (Grapsas et al., 2021). Research to date thus suggests that although narcissists reliably become aggressive and defensive in response to negative self-relevant events, no clear pattern has emerged regarding their responses to positive self-relevant events.

One reason for this ambiguity might be that prior studies have not systematically measured or manipulated others' responses to narcissists' successes. Peers' responses to a narcissist's success might be pivotal in shaping narcissists' response to the success due to narcissists' strong motivation to gain social status. If they are motivated to succeed primarily for the potential status gains that come from success, narcissists might feel elevated pride only in response to those achievements that clearly raise their status. In contrast narcissists might experience substantially less pride than non-narcissists in response to successes that do not bring social approval because these successes do not fulfill their status-striving motives, whereas for non-narcissists, these events are a source of intrinsic feelings of self-worth. In sum, we propose two key hypotheses for the present research: (1) Narcissists will report greater pride than non-narcissists in response to failure, but not in response to success, and (2) narcissists will feel less pride than non-narcissists in response to successes that do not elicit a positive social response from others.

The Present Research

In four studies using seven unique samples (total $N = 3463$), we explored narcissistic individuals' feelings of pride in response to success and how these differ from their feelings in response to failure, and from those of non-narcissistic people with high self-esteem. Importantly, this investigation emerged from exploratory analyses of studies designed to investigate different

research questions. While addressing these other questions, we collected data on narcissists' emotional responses to success and failure (see the following links for our pre-registrations detailing hypotheses for our originally planned studies: Study 1, Sample 1: https://osf.io/v53jm?view_only=ed1dc231f8894793975a71582d14abc8; Study 1, Sample 2: https://osf.io/4xejm?view_only=ed1dc231f8894793975a71582d14abc8; Study 1, Sample 3: https://osf.io/4efv8?view_only=ed1dc231f8894793975a71582d14abc8; Study 2, Sample 1: https://osf.io/87xgc?view_only=ed1dc231f8894793975a71582d14abc8; Study 3: https://osf.io/9mq8n?view_only=ed1dc231f8894793975a71582d14abc8).

In each sample of Study 1, we asked participants to recall a recent success or failure experience at school or at work and to report their emotional reaction to that event. Across studies, we uncovered an interaction indicating that narcissists reported greater pride in response to failure than non-narcissists but this relation did not emerge in response to success. In both samples of Study 2, we replicated the design of Study 1 but included additional measures to assess participants' perceptions of their peers' responses to their success. We also included a measure of loneliness to examine whether low loneliness leads to the same emotional response among narcissists as does their sense of high social status. This addition allowed us to test whether and how social responses predict the extent to which narcissistic people feel pride in their successes. The key difference between Sample 1 and Sample 2 of Study 2 is that Sample 2 is a pre-registered replication of Sample 1 (https://osf.io/fyv94?view_only=ed1dc231f8894793975a71582d14abc8), with the pre-registered hypothesis that narcissists' feelings of pride in response to success would be contingent on the social feedback they receive.

Study 3 is a laboratory experiment that allowed us to observe the hypothesized process unfold in a live setting, with individuals experiencing a success and receiving positive or negative social feedback from a peer during the study. Finally, Study 4 is a pre-registered direct replication of Study 2 (https://osf.io/akvtg/?view_only=c16e1ace94f843e38543139ccfeac6c9), with several changes to address limitations of past studies. Together, these studies provide the first evidence that narcissists' feelings of pride in their successes are contingent upon the social responses they receive from others.

Transparency and Openness

Given that Study 1, Study 2-Sample 1, and Study 3 were originally designed to address different research questions, we made several predictions and included additional measures not discussed here. These other hypotheses were not supported by the data (see SOM1). For transparency, we provide pre-registrations, data, materials, and analysis code for all studies, including predictions and measures that are not discussed in the main text, on our OSF page: https://osf.io/se654/?view_only=ed1dc231f8894793975a71582d14abc8. Furthermore, all pre-registered predictions made prior to each study, and corresponding analyses and results, are reported in SOM1. Despite the irrelevance of our initial pre-registered hypotheses for Studies 1-3, other information reported in the pre-registration documents remain accurate: sample size planning, experimental procedure, choice of measures and conditions, and exclusion criteria. We did not deviate from any methodological aspects of the pre-registrations.

STUDIES 1A-1C

Study 1 is comprised of three samples of participants who completed identical procedures. All three samples were originally collected for studies that tested hypotheses unrelated to the present research; see the following pre-registrations for our original hypotheses

and study plans: https://osf.io/v53jm?view_only=ed1dc231f8894793975a71582d14abc8 (Sample 1), https://osf.io/4xejm?view_only=ed1dc231f8894793975a71582d14abc8 (Sample 2), https://osf.io/4efv8?view_only=ed1dc231f8894793975a71582d14abc8[2] (Sample 3). All reported analyses are therefore exploratory; the results of pre-registered analyses, addressing different research questions, are reported in SOM1.

Method

Participants.

Sample 1. Three hundred adults were recruited from Amazon Mechanical Turk (MTurk). Fifty-two participants were excluded from analyses for failing an attention check, 19 were excluded for failing to correctly identify whether they were assigned to the success or failure condition at the end of the experiment, and 37 were excluded for suspicious responses to the writing manipulation. To determine exclusions for suspicious written responses, a research assistant was trained to identify careless or random responding based on recent research on this issue in online studies (e.g., Keith et al., 2017; Storozuk et al., 2020; Zickar & Keith 2023). We cut all responses that she coded as irrelevant to the prompt, incoherent, overly sparse, or likely to be copied from an Internet search. This resulted in a final sample of 192 participants (61% women, 38% men, 1% non-binary; age range = 20-70, median = 33 years; 73% White, 9% Black, 7% South Asian, 6% East Asian, 3% Hispanic or Latinx, 2% prefer not to answer).

Sample 2. Three hundred adults were recruited from MTurk. Forty-five participants were excluded from analyses for failing an attention check, 14 were excluded for failing to correctly identify whether they were assigned to the success or failure condition, and 47 were excluded for

[2] In our pre-registration document (https://osf.io/4efv8?view_only=ed1dc231f8894793975a71582d14abc8), we indicated that we would measure perceived isolation with the UCLA Loneliness Scale Short Form (Hays & DiMatteo, 1987), but due to accidental error, this measure was omitted. All remaining studies include this measure.

suspicious responses to the writing manipulation. This resulted in a final sample of 194 participants (55% women, 44% men, <1% non-binary; age range = 18-79, median = 34 years; 83% White, 7% Black, 5% Hispanic or Latinx; 3% East Asian, 3% prefer not to answer).

Sample 3. Six hundred individuals were recruited from MTurk. Following the criteria specified in our pre-registration, 70 were excluded from analyses for failing an attention check; an additional 87 participants were excluded for suspicious responses to the writing manipulation. This resulted in a final sample of 443 participants (58% women, 40% men, 2% non-binary; age range = 18-75, median = 36 years; 77% White, 11% Black, 6% East Asian, 6% Hispanic or Latinx, <1 % South Asian, 1% prefer not to answer[3]).

In total, the final sample for Study 1 is 829 participants (58% women, 41% men, 1% non-binary; age range = 18-79 years, median age = 34 years; 77% white, 10% Black, 5% East Asian, 5% Hispanic or Latinx, 2% South Asian, 2% prefer not to answer). A sensitivity analysis conducted in G*Power (Faul et al., 2007) indicated that this sample provided 80% power to detect a difference in the size of the correlation between narcissism and authentic pride between conditions of size Cohen's $q = .20$ (equivalent to a difference of $r = .19$).

Procedure

Participants began by reporting self-esteem and narcissism. They were then randomly assigned to describe a recent success or failure at school or work. We chose to focus on these agentic domains because narcissistic individuals are known to value and enhance their agentic qualities, like competence at work, but are less concerned with communal qualities like generosity (Campbell & Foster, 2007; Grijalva & Zhang, 2016). In addition, we asked participants to write about success or failure experiences, broadly defined, because our research

[3]Participants could select multiple options for ethnicity, which is why the percentages sum to more than 100% across studies.

question pertains to emotional reactions to success and failure, and emotions tend to be elicited by subjective appraisals of events (Delplanque et al., 2009; Schacter & Singer, 1962). Thus, our approach allowed participants to self-define success and failure, ensuring that reported emotional responses were driven by events that they perceived as constituting success and failure.

To encourage vivid recall and emotional investment, participants were asked to write about the event they had in mind for five minutes (Ekman et al., 1983). For example, a participant in the success condition wrote the following:

"Among my most recent accomplishments was writing and publishing a novel. I did most of the work myself, including the cover design. It was a long process. The novel itself required a year of research before I started writing the actual story. It took another couple of years to write the book. Then I set it aside for a while, before I began the editing process. That took another several months. This wasn't the first book I published, so I knew how to format it and do the cover art/design. Next came the marketing, which is still an ongoing process. The whole project involved a lot of hard work. Although I was able to set my own pace, it was stressful at times. I learned some new skills, which I now use in other work that I do. The book itself continues to sell pretty well, considering that it is a niche market..."

A participant in the failure condition wrote the following:

"I was recently let go from a job for a regrettable set of circumstances. I was essentially railroaded out of the place by a few people who weren't particularly fond of my presence there, but who didn't know how to deal with me anyway because it's just a job and we're there to work. I would have liked to have stayed. I got along with almost everyone just fine. It was a pretty big setback because the pay I was making at that job really set me up nicely for my financial needs. I felt like a failure for a while, but I decided not to let that keep me from continuing to try to meet my financial needs. I also took the opportunity to focus harder on my graduate work, which has been going wonderfully."

To determine whether narcissists or individuals high in self-esteem tended to recall different kinds of successes and failures than people lower in these traits, trained coders rated participants' narratives on five dimensions: (1) the private vs. public nature of the success or failure, (2) the agentic nature of the success or failure, (3) the communal nature of the success or failure, (4) the extremity of the success or failure, and (5) who (if anyone) provided feedback in response to the success or failure (see SOM2 for full details on coding procedures and results).

Only four out of 36 possible correlations between narcissism or self-esteem and any of these coded dimensions were significant. We reconducted analyses controlling for each of these four coded dimension(s); none of the results reported below were changed (see SOM2 for more detail). These analyses indicate that the few potential differences uncovered in the ways that narcissists and those with high self-esteem recall their successes and failures do not influence the pattern of results observed.

Next, participants reported responses to dependent variables; for the purposes of this investigation, we focus on authentic pride in response to the recalled success or failure (see SOM1 for all measures included). Finally, for exclusionary purposes, participants completed a multiple-choice question asking them to identify whether they wrote about a success or failure, and a question checking their attention.

Measures

Self-Esteem. In all three samples, self-esteem was measured with the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965; αs > .91 across samples). An example item is "On the whole, I am satisfied with myself". Self-esteem was rated on a scale from 1 (Strongly disagree) to 5 (Strongly agree).

Narcissism. Narcissism was assessed in all three samples with an abbreviated version of the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). For each item, participants are presented with a narcissistic and non-narcissistic statement and are asked to choose which statement better describes them. An example item is "I am a born leader" vs. "Leadership is a quality that takes a long time to develop". Their score on this measure thus represents the number of narcissistic options chosen across items. In Sample 1, we took 21 items from the full-length measure that have been shown to adequately capture two facets of grandiose narcissism.

The first facet, leadership-authority, refers to being confident and assertive, and believing one has strong leadership potential (α= .82; e.g., "I see myself as a good leader" vs. "I'm not sure if I would make a good leader"); leadership-authority tends to be associated with adaptive outcomes like social potency and goal persistence (Ackerman et al., 2011). The second facet, grandiose exhibitionism, refers to being vain, self-absorbed, and attention-seeking (α= .82; e.g., "I like to look at myself in the mirror" vs. "I am not particularly interested in looking at myself in the mirror"), and is associated with both adaptive outcomes, like social potency, and maladaptive outcomes, like entitlement and rage (Ackerman et al., 2011). We split the measure in half to assess narcissistic grandiosity pre- and post-manipulation (these analyses were planned in our pre-registration for the original version of this study, see predictions and results in SOM1), so participants in Sample 1 completed only 11 randomly determined items before the manipulation and the remaining 10 afterwards.

In Sample 2, participants completed all 21 of the NPI items previously shown to capture leadership-authority and grandiose-exhibitionism (Ackerman et al., 2011; α = .90). In Sample 3, we included four additional items of the NPI. These items comprise the Entitlement/Exploitativeness facet as determined by Ackerman and colleagues (2011). This resulted in a 25-item version of the scale. The Entitlement/Exploitativeness facet of narcissism refers to being selfish, entitled, and manipulative (e.g., "I insist upon getting the respect that is due to me" vs. "I usually get the respect that I deserve"; α = .90), and is associated with maladaptive outcomes like antisocial behavior, exploitativeness, and poor relationship quality (Ackerman et al., 2011; Back et al., 2013; Crowe et al., 2019). The inclusion of these items allowed us to measure grandiose narcissism more comprehensively by assessing both its agentic and antagonistic features (Ackerman et al., 2011).

Authentic Pride. Participants reported how they felt "during and immediately after the event you described" using the seven-item Authentic Pride Scale (Tracy & Robins, 2007; αs > .93 across samples; items include "accomplished", "successful", and "like I am achieving"). Authentic pride was rated on a five-point Likert scale ranging from 1 (Not at all) to 5 (Extremely). Authentic pride, compared to its counterpart hubristic pride, correlates strongly with uni-factor measures of pride (Tracy & Robins, 2007; Tracy et al., 2023); we therefore use the terms pride and authentic pride interchangeably.

Results

Given that participants completed different numbers of NPI items across samples, we standardized NPI scores within each sample prior to aggregating the data. Table 1 shows descriptive statistics and correlations between variables within each condition (see Tables S6, S7, and S8 in the SOM3 for correlations between all variables included in each sample).

Table 1

Correlations Between all Variables Within Each Condition, Study 1.

	Variable	*M*	*SD*	1	2	3
1.	Narcissism	$M_{Success} = 0.00$ $M_{Failure} = 0.00$	$SD_{Success} = 1.00$ $SD_{Failure} = 1.00$	–	**.15****	**.28*****
2.	Self-esteem	$M_{Success} = 3.84$ $M_{Failure} = 3.85$	$SD_{Success} = 0.81$ $SD_{Failure} = 0.87$	**.12***	–	**.15****
3.	Authentic Pride	$M_{Success} = 4.18$ $M_{Failure} = 2.14$	$SD_{Success} = 0.69$ $SD_{Failure} = 0.95$	.01	**.39*****	–

* $p < .05$
** $p < .01$
*** $p < .001$

Notes. In both conditions, narcissism and self-esteem were measured before the manipulation. Authentic pride was measured after the manipulation. The mean and standard deviation for narcissism scores are one and zero, respectively, because narcissism was standardized within-sample prior to aggregating the data from each study. Self-esteem and authentic pride were rated on a 5-point Likert scale. Coefficients above the diagonal refer to correlations within the failure condition. Coefficients below the diagonal refer to correlations within the success condition. Bolded values indicate statistical significance, $p < .05$.

Do narcissists feel greater pride than non-narcissists in response to success and failure?

To explore potential differences between narcissistic individuals' emotional responses to success and failure, we conducted a regression analysis with authentic pride was regressed onto narcissism, experimental condition, and an interaction between narcissism and condition (see Table 2). We then conducted a corresponding analysis in which narcissism was replaced with self-esteem as the independent variable to test whether the same pattern of results emerged for both forms of self-regard. Narcissism and self-esteem are known to produce meaningful and reliable suppressor effects (Paulhus et al., 2004), so we also conducted analyses in which both narcissism and self-esteem were included as predictors, as well as interactions between both forms of self-regard and experimental condition (Yzerbyt et al., 2004), to test whether the observed effects of narcissism hold controlling for shared variance with self-esteem. As a result, these analyses, here and in subsequent studies, reflect the associations between pride and the unique aspects of narcissism and self-esteem, respectively, rather than their shared variance.

A significant interaction emerged between narcissism and condition (see Table 2 and Figure 1). Decomposing this interaction showed that although narcissists reported significantly greater pride than people low in narcissism in response to failure, $\beta = .21$, $t(825) = 6.54$, $p < .001$, they felt no greater pride than people low in narcissism in response to success, $\beta = .004$, $t(825) = 0.14$, $p = .88$. In contrast, we observed an interaction between self-esteem and experimental condition in the opposite direction (see Table 2). Decomposing this interaction showed that individuals with high self-esteem reported greater pride than people low in self-esteem in response to failure, $\beta = .11$, $t(825) = 3.59$, $p < .001$, and this relationship was significantly stronger in response to success, $\beta = .21$, $t(825) = 7.04$, $p < .001$. The interaction between narcissism and experimental condition was robust to controlling for self-esteem, $\beta = .21$,

$t(823) = 5.11$, $p < .001$, as was the interaction between self-esteem and experimental condition controlling for narcissism, $\beta = -.14$, $t(823) = -3.32$, $p < .001$ (see Table 2 and Figure 1).

Table 2

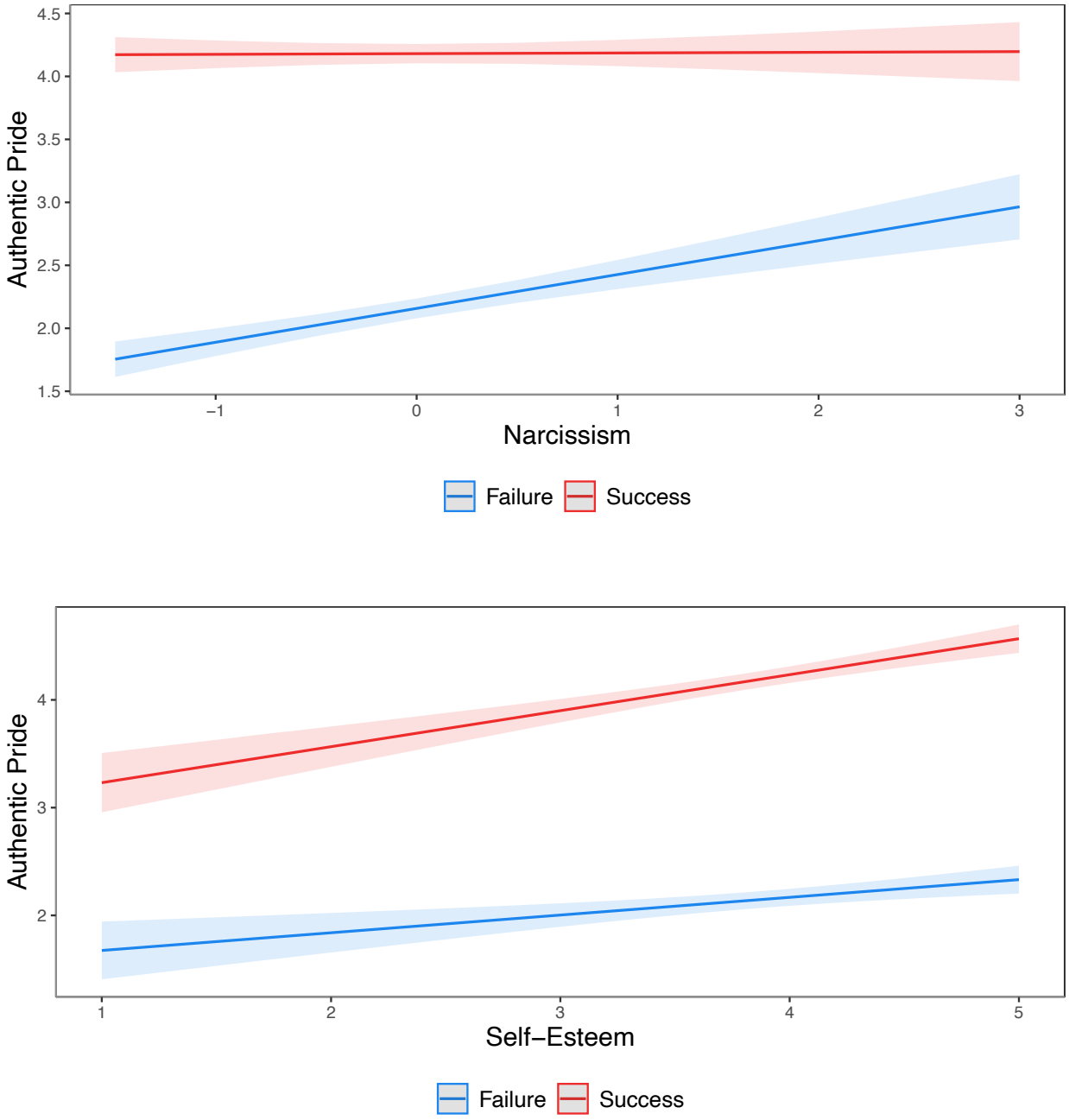
Left: Interaction Between Narcissism and Condition Predicting Authentic Pride, Study 1. Right: Interaction Between Self-Esteem and Condition Predicting Authentic Pride, Study 1.

Narcissism				Self-Esteem			
Coefficient	*β*	*t*	*p*	Coefficient	*β*	*t*	*p*
(Intercept)	**.76**	**25.40**	**<.001**	(Intercept)	**.76**	**25.77**	**<.001**
Narcissism	.004 (-.02)	0.14 (-0.73)	.89 (.47)	Self-Esteem	**.21** **(.22)**	**7.04** **(7.24)**	**<.001** **(<.001)**
Failure Condition	**-1.54**	**-36.16**	**<.001**	Failure Condition	**-1.56**	**-36.94**	**<.001**
Narcissism x Failure Condition Interaction	**.20** **(.21)**	**4.69** **(5.11)**	**<.001** **(<.001)**	Self-Esteem x Failure Condition Interaction	**-.11** **(-.14)**	**-2.58** **(-3.32)**	**.01** **(<.001)**

Notes. Condition is coded such that success is the reference group. All coefficients are standardized regression coefficients. Coefficients in parentheses represent the effect of narcissism controlling for self-esteem and vice versa. Bolded values indicate statistical significance, $p < .05$.

Figure 1

Interaction Between Narcissism (top) and Self-Esteem (bottom) and Experimental Condition Predicting Authentic Pride, Study 1.



Note. Authentic pride and self-esteem are shown in unstandardized units. Narcissism is shown in standardized units due to the different number of narcissism items used across samples.

Discussion

In Study 1, we found that narcissistic individuals felt greater pride than people low in narcissism in response to failure but not success. This finding is consistent with past research on narcissistic defensiveness (e.g., Campbell et al., 2000; Horton & Sedikides, 2009); agentic failures threaten narcissistic individuals' sense of self, and they seem to respond by defensively denying the implications of the failure for their self-concept. Here, this denial took the form of enhanced feelings of pride. Narcissists' emotional responses to success, however, deviate from this pattern; they show no difference in pride following success than do individuals low in narcissism.

Importantly, the absence of a difference here (i.e., the null correlation between narcissism and pride following success) is unlikely to be due to a ceiling effect, despite our observation of high levels of pride in response to success on average. In this and subsequent studies, mean levels of pride in response to success were more than one standard deviation below the maximum value of the scale, which is not high enough to preclude a positive association between narcissism and pride from emerging if there were one. Consistent with this reasoning, the observed positive relationship between self-esteem and pride in response to success demonstrates that there was sufficient variance in the values of pride in this condition to correlate significantly with other variables. In contrast to narcissists, individuals with high self-esteem felt greater authentic pride than people with low self-esteem in response to both success and failure, suggesting that self-esteem boosts authentic pride across these different contexts, though the relation between self-esteem and pride was significantly stronger in response to success than failure. We explore the reliability and robustness of this unpredicted difference in subsequent studies.

In supplemental analyses, we decomposed narcissism into the three facets measured here, leadership-authority, grandiose-exhibitionism, and entitlement-exploitativeness, and reconducted analyses with each of these three facets instead of the total score (see SOM5). Results suggested that the different relations of narcissism and pride between success and failure conditions are driven more by the grandiose-exhibitionism facet than the other two. This suggests that the components of narcissism associated with vanity, attention seeking, and an inflated sense of self-importance account for the difference between narcissists' feelings of pride in response to success and failure.

We also conducted supplemental analyses to test whether this pattern of results applies to hubristic pride as well as authentic pride. We did not find a significant interaction between narcissism and condition predicting hubristic pride (see SOM4). Instead, in response to both success and failure, narcissists feel greater hubristic pride than non-narcissists, consistent with past research showing a strong, positive trait-level correlation between narcissism and hubristic pride (e.g., Mercadante & Tracy, 2022; Tracy & Robins, 2007; Tracy et al., 2009). Thus, considering both facets of pride together, narcissistic individuals reported greater pride than non-narcissistic individuals across conditions, with the exception of their authentic pride response to success. We therefore decided to focus on authentic pride in the remaining studies, and, specifically, on the question of why narcissists do not feel greater authentic pride in their successes than non-narcissists.

STUDY 2

The results of Study 1 suggested that grandiose-exhibitionism is the component of narcissism that accounts for narcissists' divergent pride responses to success compared to failure. One possible explanation may thus be that narcissists high in grandiose-exhibitionism, who tend

to be vain and attention-seeking, require social responses indicative of a status boost to feel proud of their successes. Status-enhancing feedback might be necessary to satisfy these individuals' vanity and desire for attention, such that a success that does not elicit others' admiration does not beget pride because it fails to satisfy these motives.

This interpretation is consistent with our proposal that narcissistic individuals are motivated to achieve success primarily because it can lead to status gains, and, as a result, their feelings of pride are calibrated to the social responses they receive rather than any intrinsic aspects of the success itself. Indeed, despite the strong association between agentic successes and social status (e.g., Sznycer et al., 2017), there are countless reasons that any given agentic success might not actually raise one's status. For example, other people might not celebrate narcissistic individuals when they succeed because they have grown to dislike narcissists (Paulhus, 1998).

In Study 2 we tested whether narcissists' feelings of pride in their successes are contingent on their peers' responses by replicating the method of Study 1 and adding three measures assessing participants' perceptions of others' responses to their success or failure: self-perceived prestige, loneliness, and general satisfaction with the social response. We used these three measures to capture self-perceptions of social status, social inclusion, and satisfaction with others' responses, respectively. There are compelling reasons to expect that one or several of these social perceptions might influence narcissists' feelings of pride.[4]

[4] We pre-registered a plan to run all analyses with prestige, loneliness, and satisfaction with the social response entered individually as predictors, as well as a plan to combine these measures into an index representing positive social responses by summing their standardized scores after reverse-scoring loneliness, such that higher scores indicate a more positive social response (see https://osf.io/87xgc?view_only=ed1dc231f8894793975a71582d14abc8). However, given that we found consistent results for one indicator across all studies (prestige) and not for others, the composite index is uninformative, so it is reported in the SOM (see SOM7). We also pre-registered our plan to follow up on suggestive evidence from Study 1 and Study 2-Sample 1 regarding an interaction between narcissism and shame in response to failure. These pre-registered predictions were not supported and lie outside the scope of this manuscript, so are reported in SOM1.

Similar to the multi-sample composition of Study 1, and as pre-registered prior to collecting Sample 2 (https://osf.io/fyv94?view_only=ed1dc231f8894793975a71582d14abc8), we analyzed and report results of two individual samples aggregated together. As in Study 1, Study 2-Sample 1 was conducted to test a different research question, and those hypotheses are no longer relevant to the analyses reported below. All reported results for Sample 1 are therefore exploratory (see SOM6 for Sample 1 results reported separately from Sample 2). Study 2-Sample 2 was conducted to test whether the exploratory results from Study 2-Sample 1 would replicate in a pre-registered study. Study 2-Sample 2 therefore directly replicated the method and analyses of Study 2- Sample 1, but we pre-registered hypotheses based on the results of Sample 1 and recruited a larger sample size to ensure sufficient statistical power. Results from Study2-Sample 2 are identical to those that emerged for the aggregate data, reported below (see SOM6).

Method

Participants

Sample 1. Six hundred individuals were recruited from MTurk. Following the criteria specified in our pre-registration, 82 were excluded from analyses for failing an attention check, and an additional 99 were excluded for suspicious responses to the writing manipulation. This resulted in a final sample of 419 participants (55% women, 45% men; age range = 18-73, Median = 35 years; 81% White, 6% Black, 6% East Asian, 5% Hispanic or Latinx, <1 % South Asian, 1% prefer not to answer). To determine whether we had adequate statistical power to detect an interaction between narcissism and perceptions of social feedback within each condition, we conducted a sensitivity analysis via a simulation using the *InteractionPoweR* package in R (Barranger, 2021). We entered the observed effect size for the interaction between

narcissism and prestige in the success condition in Sample 1 (β = .10). This sensitivity analysis revealed that we had 49% power in the success condition to find an effect of this size. We acknowledge this is not sufficient statistical power, which is a principal reason for subsequently replicating this study with a much larger sample (Sample 2).

Sample 2. Eleven hundred adults were recruited from Prolific Academic. Seventy participants were excluded from analyses for failing an attention check, and 73 were excluded for suspicious responses to the writing manipulation. This resulted in a final sample of 954 participants (50% women, 47% men, 2% non-binary; age range = 18-82, Median = 37 years; 69% White, 11% Black, 9% Hispanic or Latinx, 7% East Asian, 1% South Asian, 4% prefer not to answer).

Prior to data collection, we conducted a power analysis to determine the necessary sample size to provide 80% power to detect an interaction between narcissism and perceptions of social feedback predicting authentic pride within each condition. Taking a conservative estimate of the smallest effect size observed in Sample 1, we specified the power analysis for an interaction of β = .07 using the InteractionPowerR package in R (Barranger, 2021); doing so suggested a sample size of 550 per condition for 80% statistical power (https://osf.io/fyv94?view_only=ed1dc231f8894793975a71582d14abc8). As pre-registered, we also planned to conduct aggregate analyses on the combined data with Sample 1. Knowing that we would be combining data from the two studies, we recruited exactly 1100 participants for this study instead of oversampling to prepare for exclusions. We made this decision due to resource constraints. With the obtained sample size (n = 473 in success condition), sensitivity analyses conducted using the InteractionPoweR package (Barranger, 2021) indicated that we had 89%

power to detect an interaction of the size observed for the interaction between narcissism and prestige.

The combined sample thus contains 1373 participants (52% women, 47% men, 1% non-binary; age range = 18-73, median = 37 years; 76% White, 12% Black, 9% Hispanic or Latinx, 7% East Asian, 1% South Asian, 2% prefer not to answer).

Procedure

Study 2 was a direct replication of Study 1, but after writing about their recent success or failure, participants also reported prestige, loneliness, and satisfaction with the social response in response to their success or failure.

Measures

Narcissism, self-esteem, and authentic pride were assessed with the same measures as in Study 1- Sample 3.

Prestige. Given that narcissistic individuals are primarily concerned with enhancing agentic qualities (e.g., intelligence, competence; Campbell & Foster, 2007), they may care most about social perceptions of their agency, or the extent to which they feel admired for their competence. We therefore measured participants' self-perceptions of prestige in response to their success or failure. Prestige is a form of status granted to those who are respected for possessing valuable knowledge, skills, and abilities (Henrich & Gil-White, 2001), and it is possible that narcissists feel pride only in response to successes that allow them to feel prestigious in the eyes of others. We assessed prestige using a version of the Prestige Scale (Cheng et al., 2010) that was adapted to apply to a specific situation rather than one's general feelings. For example, the item "Members of my peer group respect and admire me" was changed to, "I felt like the people around me respected and admired me" (see

https://osf.io/87xgc?view_only=ed1dc231f8894793975a71582d14abc8 for all adapted items.) Participants reported prestige on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Loneliness. We theorized that if narcissists do not receive the social inclusion they expect from their successes, and feel isolated as a result, it might spoil their success experience and lead to reduced feelings of pride, compared to when they feel socially included. To test this hypothesis, we assessed loneliness with the UCLA Loneliness Scale Short Form (Hays & DiMatteo, 1987), but we adapted response options to apply to a specific situation. Specifically, we asked participants to report how lonely they felt in response to their success or failure on a five-point Likert scale ranging from 1 (Not at all) to 5 (Extremely); see https://osf.io/87xgc?view_only=ed1dc231f8894793975a71582d14abc8 for all adapted items.

Satisfaction with the social response. We also measured participants' overall satisfaction with the social response they received, and in particular whether their peers treated them as they believed they deserved to be treated. This measure allowed us to assess whether narcissists' feelings of pride depend on receiving social feedback commensurate with their own expectations for how others should treat them in response to success. We assessed satisfaction with the social response with five items that were developed for this study: "I felt like I received the respect that I deserved from others," "I felt like others admired me as much as they should have", "I felt satisfied with how others treated me in response to this event", "Other people treated me worse than I deserved to be treated" (reversed), and "I felt that I was treated unfairly by others after this experience" (reversed). Participants rated these items on a five-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

Reliability was high for all measures: $\alpha_{\text{Self-Esteem}} = .91$, $\alpha_{\text{Narcissism}} = .89$, $\alpha_{\text{Authentic Pride}} = .97$, $\alpha_{\text{Prestige}} = .88$, $\alpha_{\text{Loneliness}} = .89$, $\alpha_{\text{Satisfaction}} = .82$.

Results

Table 3 shows descriptive statistics and correlations between all variables within each condition (see Tables S9 and S10 in the SOM3 for correlations between all variables measured in this study).

Table 3

Descriptive Statistics and Correlation Between all Variables Within Each Condition, Study 2.

	Variable	*M*	*SD*	1	2	3	4	5	6
1.	Narcissism	$M_{Success}$ = 6.76 $M_{Failure}$ = 6.88	$SD_{Success}$ = 5.32 $SD_{Failure}$ = 5.62	—	**.31*****	**.28*****	**.24*****	**-.13*****	.07
2.	Self-esteem	$M_{Success}$ = 3.66 $M_{Failure}$ = 3.70	$SD_{Success}$ = 0.96 $SD_{Failure}$ = 0.92	**.28*****	—	**.28*****	**.28*****	**-.42*****	**.20*****
3.	Authentic Pride	$M_{Success}$ = 4.16 $M_{Failure}$ = 2.17	$SD_{Success}$ = 0.66 $SD_{Failure}$ = 0.87	-.02	**.32*****	—	**.50*****	**-.42*****	**.34*****
4.	Prestige	$M_{Success}$ = 3.83 $M_{Failure}$ = 2.90	$SD_{Success}$ = 0.61 $SD_{Failure}$ = 0.80	**.15*****	**.34*****	**.59*****	—	**-.55*****	**.64*****
5.	Loneliness	$M_{Success}$ = 2.04 $M_{Failure}$ = 2.98	$SD_{Success}$ = 0.75 $SD_{Failure}$ = 0.96	.02	**-.45*****	**-.55*****	**-.60*****	—	**-.56*****
6.	Satisfaction with Social Response	$M_{Success}$ = 2.04 $M_{Failure}$ = 2.98	$SD_{Success}$ = 0.75 $SD_{Failure}$ = 0.96	-.004	**.28*****	**.53*****	**.71*****	**-.66*****	—

* $p < .05$
** $p < .01$
*** $p < .001$

Note. In both conditions, narcissism and self-esteem were measured before the manipulation. Authentic pride, prestige, and loneliness were measured after the manipulation. Narcissism scores range from 0 to 25. All other variables were rated on a 5-point Likert scale. Coefficients above the diagonal refer to correlations within the failure condition. Coefficients below the diagonal refer to correlations within the success condition.

Do narcissists feel greater pride than non-narcissists in response to success and failure?

We next conducted the same regression analyses as in Study 1 (see Table 4). We again found an interaction between narcissism and condition indicating that although narcissists reported significantly greater pride than those low in narcissism in response to failure, $\beta = .19$, $t(1369) = 8.33$, $p < .001$, no such difference emerged in response to success, $\beta = -.01$, $t(1369) = -0.53$, $p = .59$. Also consistent with Study 1, supplemental analyses suggested that these effects were driven by the grandiose-exhibitionism facet of narcissism (see SOM5). In contrast to Study 1, however, no significant interaction emerged between self-esteem and condition. A main effect of self-esteem showed that people with high self-esteem reported greater pride than those low in self-esteem in response to both success and failure, $\beta = .17$, $t(1369) = 7.63$, $p < .001$. All of these effects were robust to controlling for the other form of self-regard (Yzerbyt et al., 2004; see Table 4 and Figure 2).

Table 4

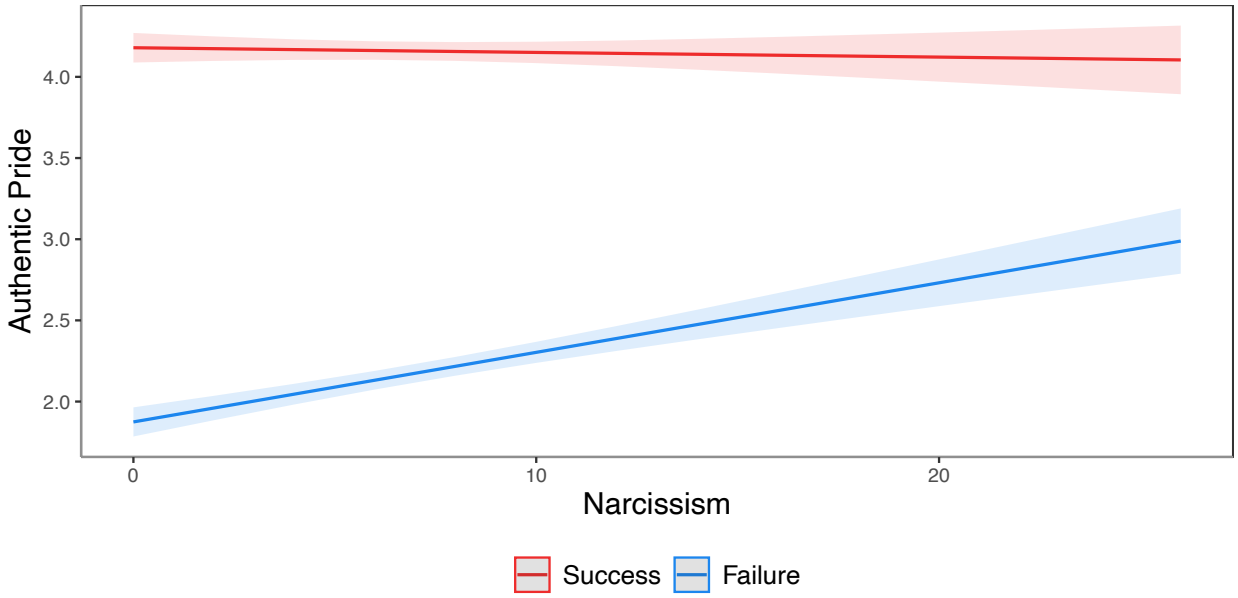
Left: Interaction Between Narcissism and Condition Predicting Authentic Pride, Study 2. Right: Interaction Between Self-Esteem and Condition Predicting Authentic Pride, Study 2

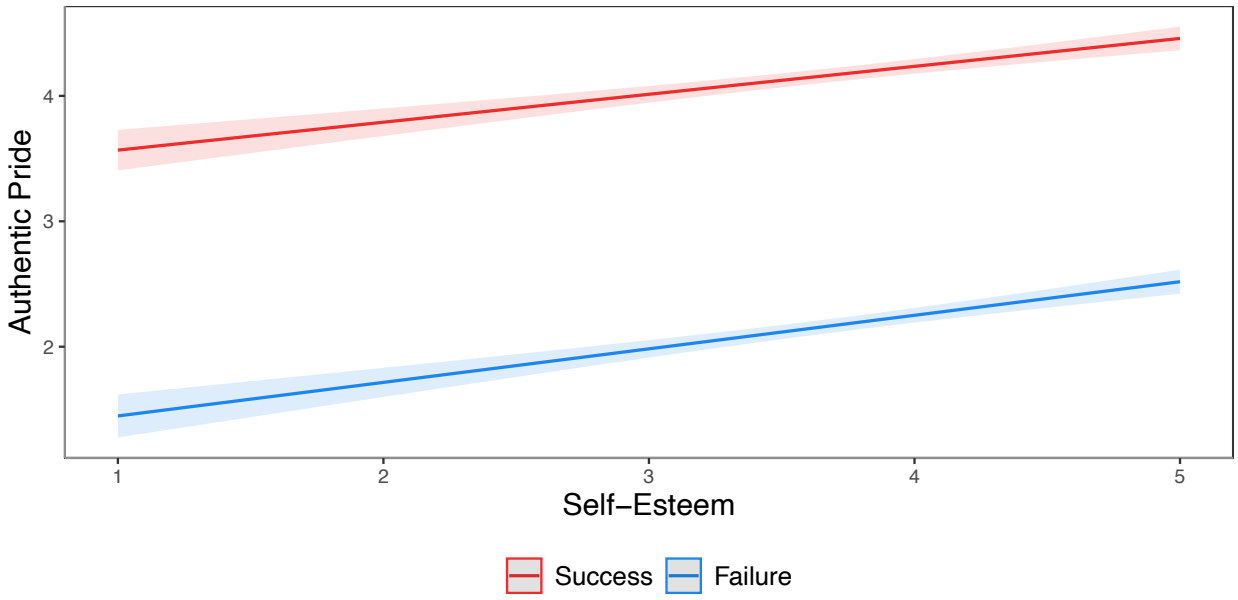
Narcissism				Self-Esteem			
Coefficient	*β*	*t*	*p*	Coefficient	*β*	*t*	*p*
(Intercept)	**.78**	**34.43**	**<.001**	(Intercept)	**.79**	**35.34**	**<.001**
Narcissism	-.01 **(-.07)**	-0.53 **(-2.81)**	.59 **(.005)**	Self-Esteem	**.17** **(.18)**	**7.63** **(8.23)**	**<.001** **(<.001)**
Failure Condition	**-1.58**	**-48.92**	**<.001**	Failure Condition	**-1.59**	**-50.16**	**<.001**
Narcissism x Failure Condition Interaction	**.20** **(.21)**	**6.13** **(6.32)**	**<.001** **(<.001)**	Self-Esteem x Failure Condition Interaction	.03 (-.03)	1.06 (-0.92)	.29 (.36)

Notes. Condition is coded such that success is the reference group. All coefficients are standardized regression coefficients. Coefficients in parentheses represent the effect of narcissism controlling for self-esteem and vice versa. Bolded values indicate statistical significance, $p < .05$.

Figure 2

Interaction Between Narcissism (top) and Self-Esteem (bottom) and Experimental Condition Predicting Authentic Pride, Study 2.





Note. All variables are shown in unstandardized units.

Does narcissists' pride in success depend on peers' responses?

As pre-registered, we next tested whether feelings of status and inclusion, measured in terms of self-perceived prestige and loneliness, respectively, as well as satisfaction with the social response, moderated narcissists' pride in their successes. Within the success condition, we conducted a regression model in which authentic pride was regressed onto narcissism, self-esteem, prestige, loneliness, and satisfaction with the social response, as well as interactions between narcissism and each of these three social perceptions. We also included interactions between these three perceptions and self-esteem, in order to control for self-esteem (Yzerbyt et al., 2004). This model allowed us to determine whether prestige, loneliness, or satisfaction with the social response was principally responsible for shifting narcissists' feelings of pride in response to success, or whether each social perception exerted an independent influence on narcissists' emotional responses.[5]

A significant interaction emerged between narcissism and satisfaction with the social response, $\beta = .14$, $t(680) = 3.19$, $p = .002$, but not between narcissism and prestige, $\beta = .06$, $t(680) = 1.42$, $p = .15$, and for narcissism and loneliness an interaction emerged in the opposite direction of what was predicted, $\beta = .08$, $t(683) = 2.05$, $p = .04$. Importantly, however, prestige and satisfaction with the social response were strongly correlated across studies (rs = .65-76 across Studies 2 and 4), resulting in multicollinearity when both variables are entered as predictors in the same model. We therefore proceeded to conduct this analysis excluding satisfaction with the social response. We prioritized retaining prestige because it is a theoretically

[5] We pre-registered testing each indicator of positive social responses separately in three different regression analyses in both samples. In response to reviewer feedback, however, we realized that analyses including both indicators in the same model allow us to better determine which of the two indicators is principally responsible for the pattern of results observed. For the sake of transparency, we report the originally planned, pre-registered analyses in SOM7.

well-articulated construct that is assessed with a highly reliable and well-validated measurement tool (e.g., Cheng et al., 2010; Tracy et al., 2020), whereas the satisfaction measure was developed *ad hoc* for this study. Furthermore, by including prestige and loneliness as predictors, we can determine whether status or inclusion (or both) is most relevant to narcissists' responses to success. Satisfaction with the social response, in contrast, captures both status and inclusion, and therefore leaves open questions about the key factor influencing the observed pattern of effects.

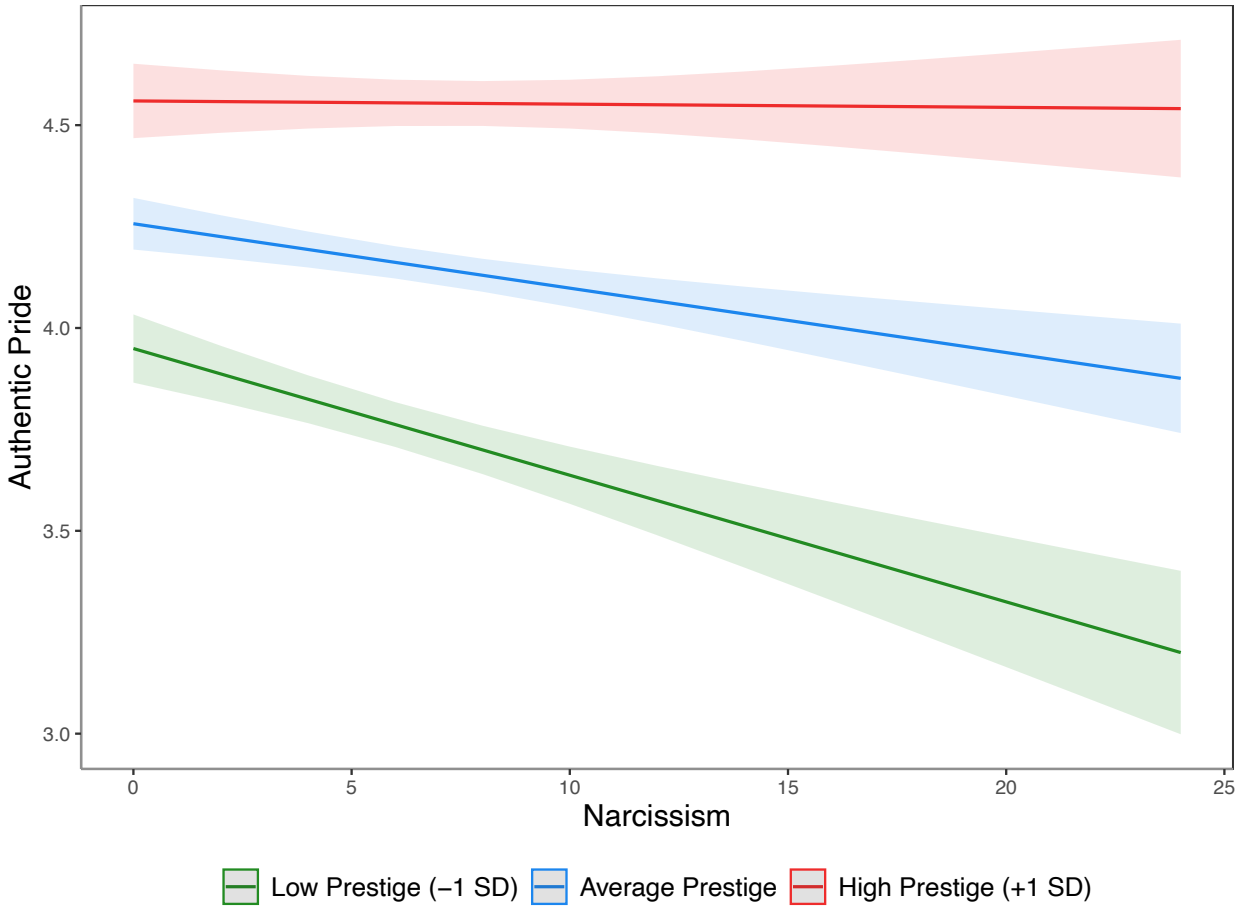
In the revised model, a significant interaction emerged between narcissism and prestige, $\beta = .15$, $t(682) = 4.25$, $p < .001$, which remained significant in a model excluding self-esteem, $\beta = .14$, $t(685) = 4.02$, $p < .001$. In contrast, we did not observe a significant interaction between narcissism and loneliness, $\beta = .04$, $t(682) = 1.04$, $p = .30$, and this interaction remained null in the model excluding self-esteem, $\beta = .04$, $t(685) = 1.26$, $p = .21$. Simple slope analyses revealed that when narcissistic people felt lower in prestige (-1 SD), they felt significantly less authentic pride than those low in narcissism, $\beta = -.28$, $t(682) = -5.59$, $p < .001$. In contrast, when they felt higher levels of prestige (+1 SD), narcissists' feelings of pride were no different from people low in narcissism, $\beta = .03$, $t(682) = 0.60$, $p = .55$. This null relation at high levels of prestige may be due to authentic pride reaching close to ceiling (4.54 on a 5-point Likert scale; see Figure 3).

These results suggest that narcissists' sense that others view them as prestigious following their success determines the extent to which they feel pride in the success. In contrast, narcissists' loneliness in response to success does not seem to influence their feelings of pride. In addition, supplemental analyses suggest that the moderating effect of these variables on the relationship between narcissism and authentic pride in response to success is driven by the grandiose-exhibitionism facet of narcissism (see SOM5), consistent with Study 1.

We next ran the same models in the failure condition. No interactions emerged between narcissism or self-esteem with either prestige or loneliness (βs < .04, ps > .33; see SOM8 for full results). These results contrast starkly with those observed in response to success, suggesting that perceptions of prestige in the eyes of others have a distinct impact on narcissists' feelings of pride following success only.

Figure 3

Interaction between Narcissism and Prestige Predicting Authentic Pride after Success, Study 2.



Note. SD = Standard Deviation. Narcissism and authentic pride are shown in unstandardized units.

Discussion

Replicating Study 1, Study 2 found that narcissistic individuals feel greater pride than people low in narcissism in response to failure, but not in response to success. This pattern differs from that of people with high self-esteem, who seem to enjoy greater pride than those with low self-esteem across both success and failure. We further found that this difference might stem from narcissists' dependence on positive social responses to their successes, and in particular, their need to feel that others view them as prestigious, a social perception based on

felt respect and admiration. When narcissists experience prestige in response to their successes, they feel similar levels of pride to those experiencing prestige who are low in narcissism. In contrast, when narcissists lack those feelings of respect and admiration following an achievement, they feel less proud, whereas those low in narcissism manage to experience pride in response to success regardless of whether they believe that others respect and admire them. We further found that loneliness in response to success does not seem to influence narcissists' pride in the success, consistent with theoretical perspectives suggesting that narcissists' primary social motive is getting ahead, rather than getting along (e.g., Back et al., 2013; Campbell & Foster, 2007; Grapsas et al., 2020; Morf & Rhodewalt, 2001; Zeigler-Hill et al., 2019).

This pattern of results received consistent support across Studies 1 and 2. However, both studies suffer from notable limitations. First, both used a subset of NPI items to measure narcissism. Although these items have been shown to validly measure three replicable facets of narcissism (Ackerman et al., 2011), it is important to test whether the findings from Studies 1 and 2 replicate using the full-length NPI. Second, both studies used online sampling and recall manipulations, resulting in reported success and failure experiences that differ across individuals. It therefore remains unclear whether the observed results are specific to the particular kinds of successes narcissists tend to experience or recollect. Finally, although we experimentally manipulated success and failure, results regarding the influence of felt prestige are correlational, precluding conclusions about whether feeling respected and admired by others causes a shift in narcissists' pride in response to success. Study 3 was designed to address each of these limitations.

STUDY 3

Study 3 was a laboratory experiment in which participants experienced a success manipulated via false feedback. They then either interacted with a confederate or sat alone. Participants who interacted with the confederate were assigned to one of two additional conditions: one in which the confederate showed respect and admiration toward the participant about their success (i.e., Admiring Partner condition), and one in which the confederate was more aloof (i.e., Aloof Partner condition). This design addressed the limitations of the two prior studies by ensuring that all participants experienced an identical success event, and also by measuring their feelings in response to the success without any time delay to avoid potentially biased recall. Furthermore, by manipulating the social response participants received, this design allowed us to directly test whether this response had a causal impact on narcissists' feelings of pride. By manipulating this response with a live confederate actor, we ensured that all participants received the same admiring or aloof feedback in an ecologically valid way. Like Studies 1 and 2, this study was initially designed to test a different set of hypotheses not relevant to the present research (see https://osf.io/9mq8n?view_only=ed1dc231f8894793975a71582d14abc8). All analyses reported below were exploratory.

Method

Participants. Seven hundred, thirteen psychology students from a large Canadian, West coast university participated in this study in exchange for course credit. Following the criteria specified in our pre-registration, 48 were excluded for failing an attention check during the study. An additional 115 participants were excluded for expressing suspicion about the description of the psychology quiz or that their interaction partner was actually a confederate. This resulted in a final sample of 540 participants that differed substantially from prior studies in terms of gender

composition, age, and ethnicity (79% women, 18% men, 2% non-binary; age range = 18-52, Median = 20 years; 50% East Asian, 25% White, 13% South Asian, 8% prefer not to answer, 2% Black, 1% Hispanic or Latinx).

As described in our pre-registration (https://osf.io/9mq8n?view_only=ed1dc231f8894793975a71582d14abc8), we powered the study based on a previous finding that is not relevant to the present investigation, and this power analysis suggested 178 participants per condition for 80% power. We planned to recruit 675 participants to provide a sufficient sample size after exclusions for attention and suspicion checks, but we surpassed this sample size because we reached it in the middle of an academic semester and decided to run the study for the remainder of the semester rather than conclude it early. A sensitivity analysis revealed that our final sample of 540 participants provided 80% power to find a between-condition difference in the relationship between narcissism and authentic pride of Cohen's $q = .31$ (equivalent to a difference of $r = .30$).

Procedure. Prior to participating, individuals were informed that the study would involve completing a "short quiz about psychology or pop culture" and that, after they completed the quiz, they "may or may not interact with another participant". Upon arrival, participants were randomly assigned to one of three experimental conditions: the control condition (i.e., no social interaction) or one of two experimental conditions that involved social interaction with a confederate.

Control Condition. Participants assigned to the control condition were greeted by an experimenter and informed that they had been assigned to complete the study without interacting with any other participants. They first completed measures of narcissism and self-esteem. The experimenter then informed the participant that they had been assigned to complete the

psychology quiz. The experimenter said, “you will now complete a set of multiple-choice questions from the GRE— Graduate Registry Exam— which is an exam that students must take to get into graduate school. It is a very difficult exam, so don’t worry if you struggle with the questions a bit; very few undergraduate students who have not studied for this exam can get these questions correct.” In reality, the eight questions were derived from lower-level psychology courses, such that participants in the study (most of whom were psychology majors and all of whom were taking psychology courses) would be able to answer them correctly (see https://osf.io/yec7k?view_only=ed1dc231f8894793975a71582d14abc8 for the quiz). These instructions were meant to make participants believe that the exam was difficult, so as to create a strong success manipulation when they received their (high) score. Participants were then given three minutes to complete the quiz.

Our scoring system was designed to create a success experience: Participants who correctly answered six or more of the eight questions were informed of their actual score, and those who answered fewer than six questions correctly were falsely informed that they answered six out of eight correctly (69% of participants actually answered at least six questions correctly). After scoring the participant’s quiz, the experimenter returned with their score written in large red ink at the top of the quiz and the feedback “Nice!” written next to it. As a manipulation check, participants responded to three survey items once the experimenter left the room after returning their quiz: (1) “How successful do you feel right now?”, (2) “How proud are you of the score you received on the test?”, and (3) “Compared to the average undergraduate student, how do you think you performed?”. These three items showed adequate inter-item reliability ($\alpha = .73$ across conditions). The first two items were rated on 5-point Likert scales from 1 (Not at all) to 5 (Extremely), and the third item was rated on a 5-point Likert scale ranging from 1 (Much worse

than the average undergraduate student) to 5 (Much better than the average undergraduate student).

After delivering the graded quiz to the participant, the experimenter left the room and the participant completed additional measures, including the measures of authentic pride and loneliness used in the prior studies (see https://osf.io/9mq8n?view_only=ed1dc231f8894793975a71582d14abc8 for all included measures; we did not measure prestige in this study because it was not relevant to the hypotheses this study was originally designed to test). After completing these questionnaires, participants responded to three open-ended suspicion-check questions: (1) "Do you have questions or remarks (of any sort) about the portion of the study you just completed?", (2) "What prediction do you think we want to test in this part of the study?", and (3) "Was there anything that you found strange, confusing, or uncomfortable regarding what you had to do?". Participants who mentioned that they doubted their score on the quiz was accurate or that the test questions were not actually from the GRE were excluded from analyses.

Social Interaction Conditions. Participants assigned to either of the two confederate conditions were first greeted by the experimenter, who informed them that they needed to wait for one more participant to arrive before beginning the study. The experimenter then sent a text message to the confederate, who subsequently arrived at the study room with their coat and backpack to seem like another participant arriving for the study. The confederate sat in the same room as the participant while the experimenter explained the study following the same script as in the control condition. They also informed the participant and confederate that they would be partners for the study, which meant that they would have two short conversations with each other. The confederate and experimenter then left the room, under the guise that the confederate

would complete the first part of the study separately. The participant then reported narcissism and self-esteem.

Next, the experimenter returned and provided the same instructions about the psychology quiz as in the control condition. The participant then completed the psychology quiz, and it was scored using the same procedure as in the control condition. The experimenter returned with the scored exam, and participants completed the same manipulation check items as in the control condition.

Next, the experimenter returned with the confederate and informed the participant and confederate that it was time for the first interaction of the study, which meant that "you will take turns telling each other about the task you just did and how you performed for two minutes. You each did something very different, so please take some time to describe your task to your partner so they can get a sense of what you did. After the first partner goes, you will return to the computer you've been working on to complete some questionnaires". The experimenter then addressed the participant directly and said, "you did the psychology test, so you have been assigned to describe the task you did first. During the conversation, please show your partner the test so they can get a sense of what the task was like." We included this instruction to make sure that the participant communicated their score to the confederate, such that participants understood that the confederate was aware that they had performed well. The experimenter then addressed the confederate directly and said, "After they are done describing the task to you, your job is to keep the conversation going. You can ask whatever you'd like to know about their experience with this task, just please do your best to stay on the topic of the task they just completed. After you do this, you'll answer some questionnaires and then switch roles for the second discussion".

The experimenter then left the room for the interaction. During the interactions, the confederate behaved in one of two ways. In the *Admiring Partner condition*, the confederate showed respect and admiration for the participant regarding their quiz performance. This condition was designed to communicate that the confederate found the participant's quiz performance impressive, and we anticipated that participants would view this response as sufficient praise for their performance. Confederates in this condition behaved in ways to suggest they viewed the participant as prestigious, akin to items we used to measure prestige in Study 2 (e.g., "I felt like the people around me respected and admired me").

These interactions followed a consistent structure. As instructed by the experimenter, each interaction began with the participant showing their quiz (with the score displayed prominently) to the confederate; in the Admiring Partner condition, the confederate was instructed to immediately compliment the participant on their score. They also were told to show non-verbal cues of listening and warmth (e.g., nodding, smiling) consistently across interactions. Confederates in this condition were further instructed to "act like everything [participants] say is really interesting and important" and to avoid letting the conversation stall by asking follow-up questions about the participant and their experience. This feature of the Admiring confederate condition reduced concerns about narcissistic participants attempting to "fish" for compliments from the confederate because the confederate was instructed to be extremely complimentary to the participant no matter how they behaved.

In the Aloof Partner condition, the confederate was instructed to behave as if they were very bored and uninterested in the participant. Confederates in this condition were also told to show non-verbal cues of indifference and boredom, such as avoiding eye contact and checking their cell phone once during each interaction. They were further instructed to answer

participants' questions with only one or a few words, and not to restart the conversation if it stalled. Confederates in this condition were not actively rude or insulting toward the participant, but conveyed no respect or admiration for the participant's quiz performance. (See our pre-registration for a complete list of instructions provided to confederates in both conditions: https://osf.io/9mq8n?view_only=ed1dc231f8894793975a71582d14abc8).

After these interactions, participants completed a three-item manipulation check about their partner's behavior during the interaction: (1) "My partner was engaged during our conversation", (2) "My partner paid attention to me during our conversation", and (3) "My partner was distracted during our conversation" (reversed; $\alpha = .92$). They then completed the same measures of authentic pride and loneliness as in the control condition.

After participants completed these measures, they responded to the same suspicion-probe items as in the control condition as well as one additional item that asked about their suspicion about the confederate: "Please use the space below to describe your thoughts and feelings about your partner during the study (i.e., the other participant you spoke with)". The experimenter and confederate then returned and jointly debriefed the participant about the purpose of the study and revealed that the confederate was part of the research team. At this point, participants were offered the opportunity to withdraw their data from the study; none decided to do so. The experimenter scripts for both the control and confederate conditions are available on OSF: https://osf.io/z74tm?view_only=ed1dc231f8894793975a71582d14abc8; https://osf.io/bn235?view_only=ed1dc231f8894793975a71582d14abc8.

Measures

Self-esteem (α = .75), authentic pride (α = .85), and loneliness (α = .81) were assessed with the same measures as in Study 2. Narcissism was assessed using the full 40-item NPI (Raskin & Terry, 1988; α = .83) rather than the subset of items used in past studies.

Results

Table 5 shows descriptive statistics and correlations within the Admiring and Aloof Partner conditions. Table 6 shows descriptive statistics and correlations within the control condition (see Tables S11 and S12 in SOM3 for correlations between all variables measured in this study).

Table 5

Descriptive Statistics and Correlations Between all Variables Within The Admiring and Aloof Partner Conditions, Study 3

Variable	*M*	*SD*	1	2	3	4
1. Narcissism	$M_{Admiring}$ = 12.60 M_{Aloof} = 12.58	$SD_{Admiring}$ = 6.65 SD_{Aloof} = 6.04	—	.13	.07	**-.21****
2. Self-esteem	$M_{Admiring}$ = 3.59 M_{Aloof} = 3.60	$SD_{Admiring}$ = 0.92 SD_{Aloof} = 0.86	**.22****	—	**.29*****	**-.42*****
3. Authentic Pride	$M_{Admiring}$ = 3.52 M_{Aloof} = 3.29	$SD_{Admiring}$ = 0.63 SD_{Aloof} = 0.67	**.33*****	**.34*****	—	**-.47*****
4. Loneliness	$M_{Admiring}$ = 1.90 M_{Aloof} = 2.31	$SD_{Admiring}$ = 0.53 SD_{Aloof} = 0.69	**-.20****	**-.22*****	**-.38*****	—

Table 6

Descriptive Statistics and Correlations Between all Variables Within The Control Condition, Study 3

Variable	*M*	*SD*	1	2	3	4
1. Narcissism	13.04	6.12	—			
2. Self-esteem	3.52	0.92	**.26*****	—		
3. Authentic Pride	3.44	0.70	**.25*****	**.31*****	—	
4. Loneliness	2.22	0.58	**-.14***	**-.40*****	**-.30*****	—

* $p < .05$
** $p < .01$
*** $p < .001$

Note. In all conditions, narcissism and self-esteem were reported before the manipulation. Authentic pride and loneliness were reported after the manipulation. Narcissism scores range from 0 to 40. All other variables were rated on a 5-point Likert scale. Coefficients above the diagonal in Table 5 refer to correlations within the Aloof Partner condition. Coefficients below the diagonal refer to correlations within the Admiring Partner condition.

The success manipulation was effective; across conditions, participants reported an average of 3.49 on a five-point Likert scale on the manipulation check items, significantly above the scale midpoint of 3, $t(539) = 15.13$, $d = 0.66$, $p < .001$. The confederate manipulation was

also successful; participants who interacted with the Admiring Partner reported that their partner was significantly more engaged and attentive, $M = 4.48$, $SD = .50$, than participants who interacted with the Aloof Partner, $M = 2.93$, $SD = 1.10$, $t(190) = -15.42$, $d = 1.81$, $p < .001$. Participants also felt significantly less lonely, $M = 1.90$, $SD = .53$, after interacting with the Admiring Partner than the Aloof Partner, $M = 2.31$, $SD = .69$, $t(283) = 5.97$, $d = 0.66$, $p < .001$. Nonetheless, participants who interacted with the Aloof Partner still rated their loneliness as below the scale midpoint, suggesting that they were not strongly negatively affected by interacting with the aloof confederate, presumably because they did not have high expectations for a random peer interacting with them as part of a psychology study in exchange for course credit. In addition, narcissistic individuals reported lower levels of loneliness in response to both confederates compared to less narcissistic individuals ($r_{\text{Aloof}} = -.21$, $p = .008$, $r_{\text{Admiring}} = -.20$, $p = .008$). These associations did not differ significantly ($p = .93$), suggesting that trait-level differences between narcissists and non-narcissists likely explain their tendency to feel less lonely regardless of the confederate's behavior.

To test for baseline differences in how successful participants felt immediately after completing the psychology exam, we first examined the relationship between narcissism and responses to the three-item success manipulation check across conditions. We conducted a regression analysis in which responses to the manipulation check were regressed onto narcissism, experimental condition, and their interaction. In contrast to the success condition in Studies 1 and 2, a significant main effect of narcissism emerged, $\beta = .19$, $t(534) = 2.75$, $p = .006$, indicating that narcissistic people reported feeling more successful, proud, and superior to their peers immediately after their success compared to people low in narcissism. This difference from the online studies may be due to timing; here, participants' reports were made prior to any social

interaction (other than being notified of their success by the experimenter), whereas participants in Studies 1 and 2 necessarily reported their feelings after the success and any social response they received to it.

Furthermore, given that all participants were given success feedback, we cannot compare this relation with that in the failure condition that was included in past studies, so it may simply reflect narcissists' trait-like tendency to feel superior to others. Indeed, we next conducted these analyses with only the manipulation check item that asked how proud they felt, and, replicating the results of all prior studies, there was no significant effect of narcissism on this item, $\beta = .11$, $t(533) = 1.64$, $p = .10$, suggesting that narcissists and non-narcissists did not differ in pride immediately following the success and before engaging in a social interaction.[6]

Does narcissists' pride in success depend on peers' responses?

We next tested how the social feedback received influenced feelings of authentic pride among narcissists and people with high self-esteem. We conducted a regression analysis in which authentic pride was regressed onto narcissism, experimental condition, and an interaction between narcissism and experimental condition. A significant interaction emerged, indicating that the relationship between narcissism and pride was significantly different in the Admiring versus Aloof Partner conditions, $\beta = .22$, $t(534) = 2.04$, $p = .04$. Decomposing this interaction revealed that narcissistic individuals felt significantly greater pride than people low in narcissism when they interacted with the Admiring Partner, $\beta = .29$, $t(534) = 4.13$, $p < .001$. When interacting with the Aloof Partner, however, narcissism was not significantly related to pride, $\beta = .07$, $t(534) = 0.86$, $p = .39$. We also found that narcissistic individuals felt significantly greater

[6] We also did not find any between-condition differences in the relationship between narcissism and pride reported immediately upon learning their score, $\beta_{\text{Control-Aloof}} = -.01$, $t(533) = -0.14$, $p = .89$; $\beta_{\text{Control-Warm}} = -.01$, $t(533) = -0.06$, $p = .95$; $\beta_{\text{Aloof-Warm}} = .01$, $t(533) = 0.08$, $p = .94$, suggesting random assignment was effective.

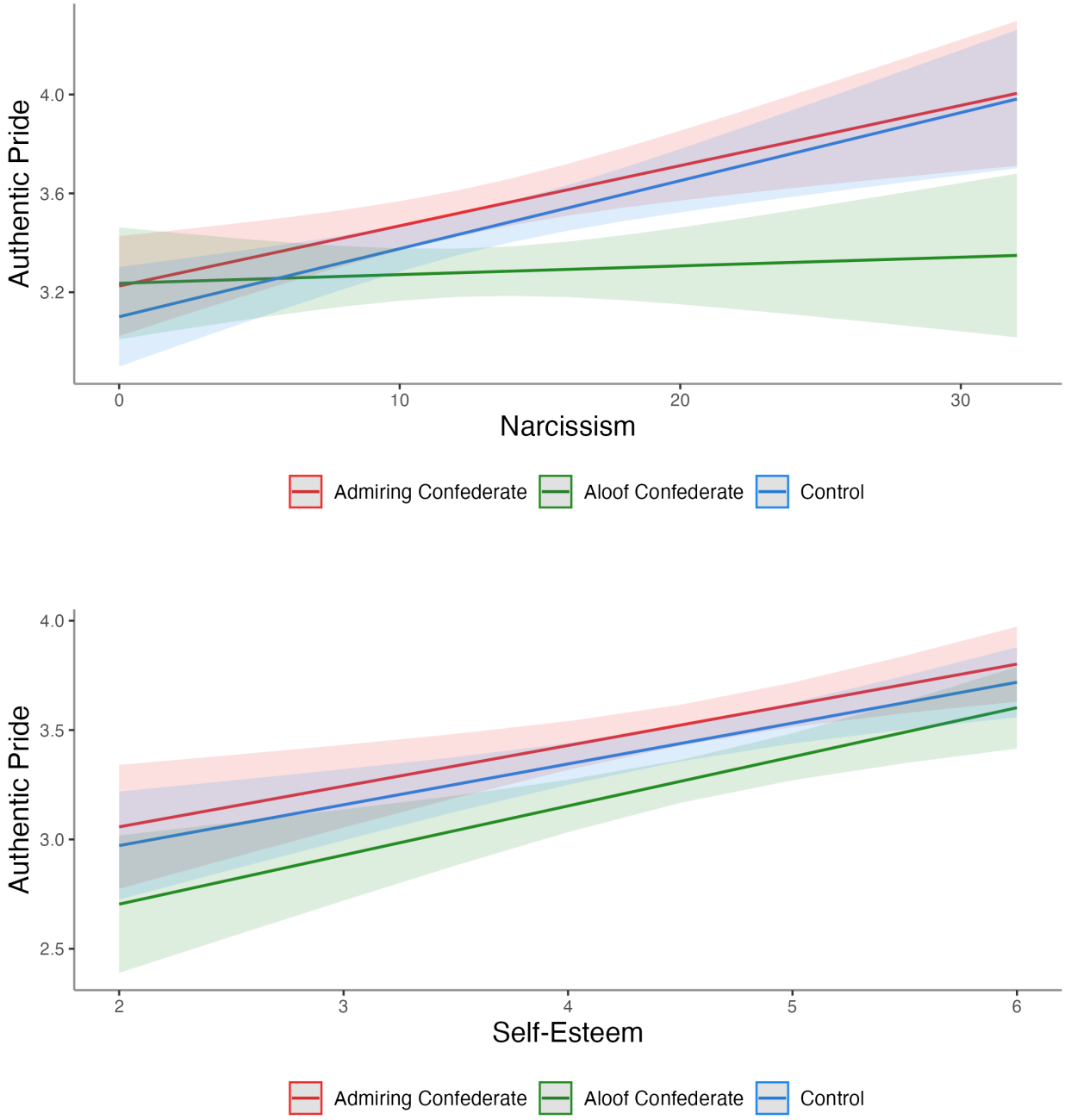
pride than people low in narcissism in the control condition, $\beta = .26$, $t(534) = 3.92$, $p < .001$, and this relationship was marginally different from that in the Aloof Partner condition, $\beta = .19$, $t(534) = 1.84$, $p = .07$, and no different from the Admiring Partner condition, $\beta = -.02$, $t(534) = -0.25$, $p = .81$ (see Figure 4).[7] Supplemental analyses suggested this difference between conditions was driven primarily by the grandiose-exhibitionism facet of narcissism, though entitlement-exploitativeness also seemed to drive the effect to a lesser extent (see SOM5).

We next conducted the same model with self-esteem replacing narcissism. No significant interactions emerged; $\beta_{\text{Control-Aloof}} = -.04$, $t(534) = -0.40$, $p = .69$; $\beta_{\text{Control-Warm}} = .02$, $t(534) = 0.26$, $p = .80$; $\beta_{\text{Aloof-Warm}} = .06$, $t(534) = 0.61$, $p = .55$. A main effect of self-esteem indicated that people with high self-esteem felt significantly greater authentic pride than people with low self-esteem across conditions, $\beta = .37$, $t(534) = 4.82$, $p < .001$. We conducted a final model including both narcissism and self-esteem and interactions between both forms of self-regard and experimental condition (Yzerbyt et al., 2004). In this model, two significant interactions emerged between narcissism and condition, $\beta_{\text{Control-Aloof}} = -.22$, $t(531) = 2.03$, $p = .04$, $\beta_{\text{Warm-Aloof}} = -.25$, $t(531) = 2.27$, $p = .02$. Thus, after controlling for self-esteem, narcissistic people felt significantly greater pride in both the control and Admiring Partner conditions, compared to the Aloof Partner condition (see Figure 4). Once again, no interactions emerged between self-esteem and experimental condition; $\beta_{\text{Control-Aloof}} = -.04$, $t(531) = 0.37$, $p = .71$; $\beta_{\text{Control-Warm}} = .003$, $t(531) = 0.03$, $p = .98$; $\beta_{\text{Aloof-Warm}} = -.04$, $t(531) = -0.33$, $p = .75$.

[7] These differences held controlling for the initial level of pride participants reported when they completed the manipulation check item (see SOM9).

Figure 4

Top: Relationship between Narcissism and Authentic Pride in Each Condition, Study 3. Bottom: Relationship between Self-esteem and Authentic Pride in Each Condition, Study 3.



Notes: Both figures come from a single model where narcissism and self-esteem were both included along with interactions between each form of self-regard and experimental condition.

Discussion

Study 3 was a conceptual replication of the success condition in the previous studies, with important modifications to address limitations of those studies. Specifically, by conducting an in-lab experiment where participants experienced success followed by experimentally manipulated peer feedback, we were able to observe the hypothesized pattern unfold *in vivo*, demonstrating that the findings from prior studies are unlikely to be artifacts of the recall method, the online nature of those studies, or characteristics of samples of participants recruited online. In addition, by manipulating confederates' behavior toward participants, we were able to experimentally test whether peers' respect and admiration causes differences in narcissists' feelings of pride in response to successes.

Furthermore, in contrast to the previous studies where successes took a variety of forms and occurred at different times, all prior to the study itself, in Study 3 every participant experienced the same, personally relevant success during the study. In addition, all participants within the same condition received the same peer feedback, and any differences were guided by participants' behavior in order to foment authentic, believable interactions. As a result, this study bolsters the cumulative body of evidence suggesting that narcissistic individuals' emotional responses to success vary depending on the extent to which they feel admired. Aloof or disinterested responses from others causes narcissists to feel less authentic pride about the same success compared to when they are met with admiration. These results are also consistent with the finding of Study 2 that feeling respected and admired (i.e., prestigious) in response to one's success is likely to be the critical perception that influences narcissists' feelings of pride. Despite mean differences in loneliness between conditions, narcissistic participants felt less lonely than non-narcissistic participants after interacting with both confederates, suggesting that interacting

with a peer who is uninterested in one's success does not cause narcissists to feel particularly lonely, and that feelings of loneliness did not drive the difference in narcissists' pride between the Admiring and Aloof Partner conditions.

The finding that narcissists felt similarly in the control (no confederate) condition and the Admiring Partner condition may be due to the fact that participants in all conditions received positive feedback from the experimenter (who wrote "Nice!" on the psychology quiz in all conditions). Although we didn't intend for this feedback to be interpreted as admiration, it may well have been, given that narcissistic participants who received no subsequent feedback reported similar levels of pride to those who received additional admiration. The difference that emerged in the Aloof Partner condition might thus suggest that narcissistic individuals who receive positive feedback on their success feel elevated pride *until* negative feedback reduces it. In contrast, positive feedback from a warm and responsive peer does not seem to enhance their pride beyond that provided by an experimenter's "Nice!".

However, we did observe a main effect of narcissism in the Admiring Partner and Control conditions. This pattern of simple slopes diverges somewhat from Study 2, where negative social responses led narcissistic individuals to feel less pride than non-narcissists, but no effect of narcissism emerged when responses were positive. Crucially, though, the interaction between conditions is consistent across studies; in both studies, receiving less respect and admiration from peers after a success reduced narcissists' pride compared to when peers showed greater respect and admiration. One possible reason for the greater pride observed among narcissists than non-narcissists in the Admiring Confederate and Control conditions here is that narcissists feel greater pride in successes that occur in laboratory studies, which are not consequential to their lives outside of the study, compared to non-narcissists. Indeed, research

has shown that narcissists typically take any opportunity to self-enhance in social situations (e.g., Wallace & Baumeister, 2002).

Importantly, however, Study 3 alone cannot speak to whether the observed pattern of results is specific to social responses to successes, given that we did not include a failure condition or a control condition without success or failure. This design choice was based on the finding from Study 2 that peers' social responses influenced narcissists' pride in their successes but not their failures, along with the substantial time, resources, and labor required to conduct Study 3 with its three in-lab between-subjects conditions requiring the engagement of two research assistants for every participant.

STUDY 4

Thus far, we have found consistent evidence for two hypotheses: (1) narcissists feel greater authentic pride than non-narcissists in response to failure, but not in response to success, and (2) narcissists' feelings of pride in response to success are contingent upon perceiving that their peers respect and admire them. Nonetheless, the prior studies have several limitations, which were addressed in Study 4.

First, prior studies did not include a control condition with no success or failure. Thus far, we have argued that narcissists report greater pride in failures than non-narcissists because they engage in a defensive process of denying the self-relevant implications of their failure, and perhaps, engaging in compensatory self-aggrandizement, which causes them to experience pride. It remains possible, however, that the positive association between narcissism and pride in the failure condition reflects the broader trait-level relation between these two constructs across contexts. To address this possibility, Study 4 included a control condition. If narcissists report no greater pride in response to failure compared to in a neutral social situation, it would suggest that

their pride responses to failure are more indicative of a general trait-level tendency than a defensive response.

Second, in Studies 1 and 2 we measured narcissism with a subset of the NPI items drawn from Ackerman and colleagues' (2011) work. Although these subsets have been well validated (Ackerman et al., 2011), Study 4, like Study 3, includes the complete 40-item NPI. We also included a measure of narcissistic admiration and rivalry (Back et al., 2013) to explore whether our findings are associated with the more agentic or antagonistic aspects of grandiose narcissism.

Method

Participants

Fifteen hundred adults were recruited from Prolific Academic. As pre-registered, 79 were excluded from analyses for failing an attention check, three for completing the study in less than four minutes, and 157 for suspicious responses to the writing manipulation. This resulted in a final sample of 1261 participants (56% women, 42% men, 1% non-binary; age range = 18-82, median = 36). We based this sample size on a power analysis conducted in G*Power. We aimed to have sufficient power to not only replicate analyses from the prior studies, but also test a model with a three-way interaction between narcissism, prestige, and experimental condition. We used the *F* tests family and the statistical test of Linear multiple regression: Fixed model, R^2 increase. We specified an effect size of $f^2 = .006441224$ (equivalent to $\beta = .08$), alpha of .05, power of .80, one tested predictor (i.e., the three-way interaction between narcissism, prestige, and experimental condition comparing success and failure), and eleven total predictors (i.e., the main effect of narcissism, the main effect of experimental condition (i.e., two dummy variables for three conditions), the main effect of prestige, the five corresponding two-way interaction terms, and the two three-way interaction terms). This analysis suggested a total sample size of

1221 participants. We therefore recruited 1500 participants with the goal of retaining at least 1221 after exclusions.

We pre-registered two hypotheses: (1) a positive relationship between narcissism and authentic pride in response to failure, which will be significantly more positive than the relationship between narcissism and authentic pride in response to success and in the control condition, and (2) an interaction between narcissism and perceived status in response to success, which will be significantly more positive than the same interaction in response to failure or the control condition. We did not expect the same pattern of results for perceived inclusion.

Procedure

The procedure for Study 4 was nearly identical to that of Study 2. Participants again began by reporting narcissism and self-esteem, then were randomly assigned to either the success, failure, or control condition. The success and failure conditions were identical to those in Study 2. Participants assigned to the control condition were asked to write about a recent social outing with their friends or family. We chose a social outing as the control condition because we aimed to evoke a memory of a positive social event more relevant to social inclusion than social status, and therefore less likely to activate narcissists' agency-based self-concept. After recounting their condition-specific experience, all participants reported feelings of prestige, loneliness, and authentic pride in response to the event they described.[8]

Measures

[8] We also included a modified version of the measure of satisfaction with the social response that was developed for Study 2. The measure was modified to better distinguish between satisfaction with status and satisfaction with inclusion. As in Study 2, given the strong correlation between this measure and prestige, and the resulting multicollinearity when both are included as predictors, we again excluded this measure from our main analyses, and report results of models that did include it in SOM10.

Self-esteem (α= .88), prestige (α= .88), loneliness (α= .87), and authentic pride (α= .95) were all measured using the same measures as in Study 2.

Narcissism. Narcissism was measured in two ways. First, as in Study 3, we used the full NPI-40 (α= .89; Raskin & Terry, 1988). Second, we measured narcissistic admiration and rivalry using the Narcissistic Admiration and Rivalry Questionnaire (NARQ). This scale contains nine items to measure narcissistic admiration (e.g., "I deserve to be seen as a great personality"; α= .88) and nine items to measure narcissistic rivalry (e.g., "Most people are somehow losers"; α= .87). Participants reported narcissistic admiration and rivalry using a six-point Likert scale ranging from 1 (not at all agree) to 6 (agree completely).

Results

Tables 7 and 8 show descriptive statistics and correlations between all variables within each condition (see Tables S13 and S14 in SOM3 for correlations between all variables measured in this study).

Do narcissists feel greater pride than non-narcissists in response to success and failure?

As in the prior studies, we first conducted regression analyses comparing the relationships between narcissism and authentic pride, and self-esteem and authentic pride, between conditions (see Table 9 and Figure 5).

Table 7

Correlation Between all Variables Within the Success and Failure Conditions, Study 4.

	Variable	*M*	*SD*	1	2	3	4	5	6	7
1.	Narcissism	$M_{Success}$ = 15.10 $M_{Failure}$ = 14.97	$SD_{Success}$ = 7.43 $SD_{Failure}$ = 7.80	—	**.70*****	**.28*****	**.25*****	**.39*****	**.32*****	**-.12***
2.	Narcissistic Admiration	$M_{Success}$ = 3.76 $M_{Failure}$ = 3.77	$M_{Success}$ = 1.08 $M_{Failure}$ = 1.09	**.70*****	—	**.29*****	**.29*****	**.46*****	**.39*****	**-.13*****
3.	Narcissistic Rivalry	$M_{Success}$ = 2.22 $M_{Failure}$ = 2.15	$M_{Success}$ = 0.95 $M_{Failure}$ = 0.96	**.33*****	**.28*****	—	**-.41*****	**.13****	-.03	**.26*****
4.	Self-esteem	$M_{Success}$ = 3.84 $M_{Failure}$ = 3.90	$SD_{Success}$ = 0.75 $SD_{Failure}$ = 0.73	**.20*****	**.34*****	**-.41*****	—	**.27*****	**.30*****	**-.43*****
5.	Authentic Pride	$M_{Success}$ = 4.33 $M_{Failure}$ = 2.90	$SD_{Success}$ = 0.59 $SD_{Failure}$ = 1.19	**.13****	**.27*****	**-.25*****	**.46*****	—	**.66*****	**-.49*****
6.	Prestige	$M_{Success}$ = 3.97 $M_{Failure}$ = 3.23	$SD_{Success}$ = 0.61 $SD_{Failure}$ = 0.83	**.28*****	**.41*****	**-.18*****	**.42*****	**.60*****	—	**-.69*****
7.	Loneliness	$M_{Success}$ = 2.04 $M_{Failure}$ = 2.81	$SD_{Success}$ = 0.71 $SD_{Failure}$ = 0.91	-.02	**-.12***	**.39*****	**-.44*****	**-.51*****	**-.62*****	—

* $p < .05$
** $p < .01$
*** $p < .001$

Note. Across conditions, narcissism and self-esteem were reported before the manipulation. Authentic pride, prestige, and loneliness, were reported after the manipulation. Narcissism scores range from 0 to 40, Admiration and Rivalry scores range from 1 to 6, and scores for all other variables range from 1 to 5. Coefficients above the diagonal refer to correlations within the failure condition. Coefficients below the diagonal refer to correlations within the success condition.

Table 8

Correlation Between all Variables Within the Control Condition, Study 4.

Variable	*M*	*SD*	1	2	3	4	5	6	7
1. Narcissism	13.63	7.63	—						
2. Narcissistic Admiration	3.63	1.13	**.72*** **	—					
3. Narcissistic Rivalry	2.16	0.95	**.33*** **	**.35*** **	—				
4. Self-esteem	3.90	0.77	**.33*** **	**.33*** **	**-.31*** **	—			
5. Authentic Pride	4.06	0.67	**.40** **	**.48*** **	-.06	**.48*** **	—		
6. Prestige	3.85	0.60	**.42*** **	**.50*** **	-.02	**.40*** **	**.63*** **	—	
7. Loneliness	1.78	0.64	.01	-.01	**.32*** **	**-.39*** **	**-.31*** **	**-.45*** **	—

* $p < .05$
** $p < .01$
*** $p < .001$
Note. Across conditions, narcissism and self-esteem were reported before the manipulation. Authentic pride, prestige, and loneliness were reported after the manipulation. Narcissism scores range from 0 to 40, Admiration and Rivalry scores range from 1 to 6, and scores for all other variables range from 1 to 5.

Table 9

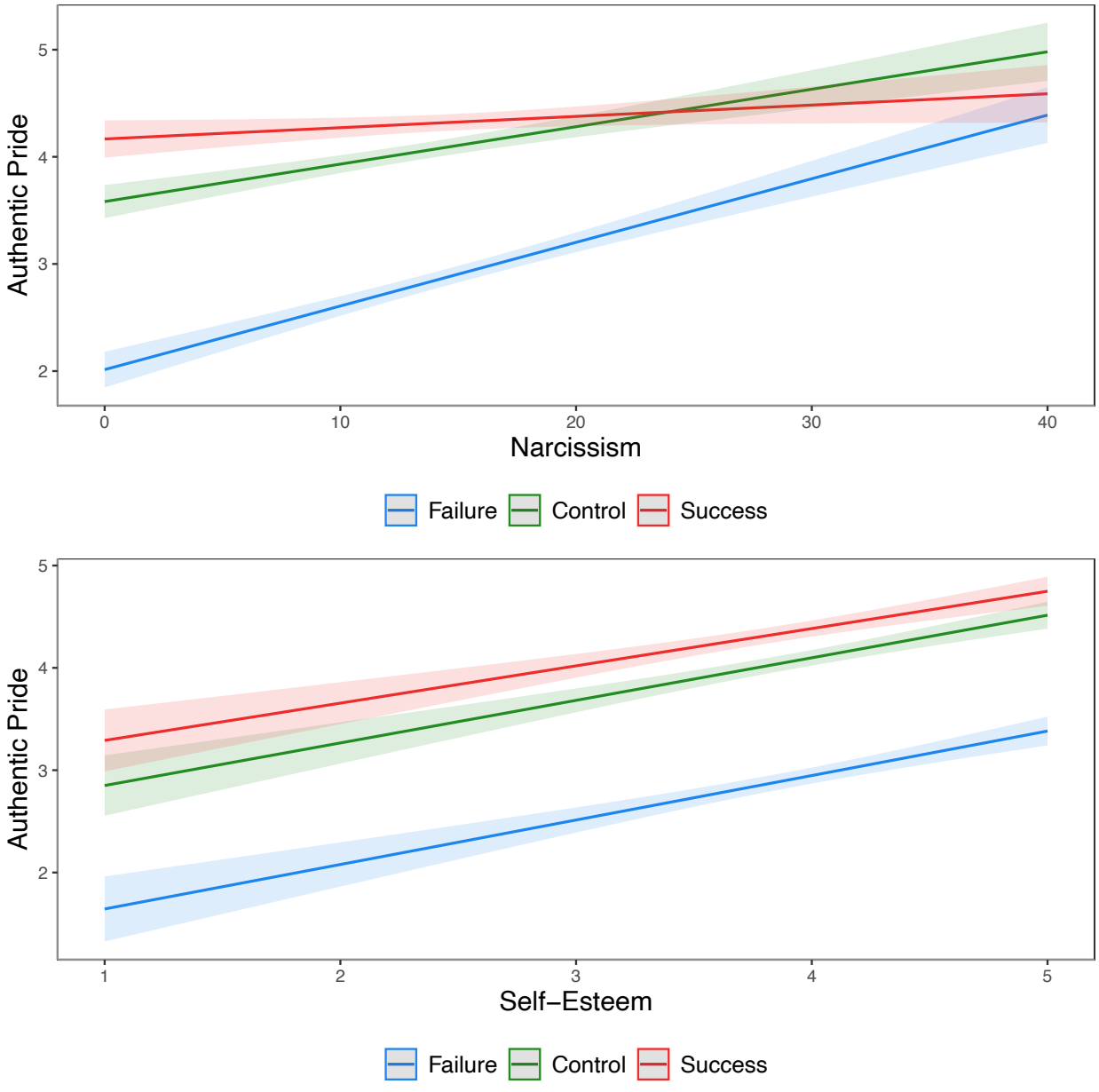
Left: Interaction Between Narcissism and Condition Predicting Authentic Pride, Study 4. Right: Interaction Between Self-Esteem and Condition Predicting Authentic Pride, Study 4.

Narcissism				Self-Esteem			
Coefficient	*β*	*t*	*p*	Coefficient	*β*	*t*	*p*
(Intercept)	**.52**	**14.06**	**<.001**	(Intercept)	**.54**	**14.55**	**<.001**
Narcissism	**.08** (.03)	**2.00** (0.68)	**.046** (.50)	Self-Esteem	**.26** **(.25)**	**6.94** **(7.02)**	**<.001** **(<.001)**
Failure Condition	**-1.37**	**-25.95**	**<.001**	Failure Condition	**-1.37**	**-25.94**	**<.001**
Control Condition	**-.22**	**-4.16**	**<.001**	Control Condition	**-.28**	**-5.30**	**<.001**
Narcissism x Failure Condition Interaction	**.35** **(.36)**	**6.70** **(6.88)**	**<.001** **(<.001)**	Self-Esteem x Failure Condition Interaction	.05 (-.04)	0.93 (-0.83)	.35 (.40)
Narcissism x Control Condition Interaction	**.18** **(.15)**	**3.35** **(2.79)**	**<.001** **(.005)**	Self-Esteem x Control Condition Interaction	.04 (-.01)	0.71 (-0.26)	.48 (.79)

Notes. Condition is coded such that success is the reference group. All coefficients are standardized regression coefficients. Coefficients in parentheses represent the effect of narcissism controlling for self-esteem and vice versa. Bolded values indicate statistical significance, $p < .05$

Figure 5

Interaction Between Narcissism (top) and Self-Esteem (bottom) and Experimental Condition Predicting Authentic Pride, Study 4.



Note. All variables shown in unstandardized units.

Replicating Studies 1 and 2, we observed a significant interaction between narcissism and the success vs. failure conditions, $\beta = .35$, $t(1255) = 6.70$, $p < .001$, indicating that narcissists reported significantly greater pride than people low in narcissism in response to failure, $\beta = .43$, $t(1255) = 11.78$, $p < .001$, and this relationship was significantly stronger than the relationship between narcissism and pride in response to success, $\beta = .08$, $t(1255) = 2.00$, $p = .046$. Importantly, although we did see a positive relationship between narcissism and pride in response to success, it did not hold controlling for self-esteem, $\beta = .03$, $t(1252) = 0.68$, $p = .50$. Thus, consistent with past studies, after accounting for narcissists' higher self-esteem, they did not feel greater pride in response to success than non-narcissists, but did in response to failure. We also found a significant interaction between narcissism and the success vs. control conditions, $\beta = .18$, $t(1255) = 3.35$, $p < .001$, indicating that the relationship between narcissism and pride was significantly stronger in the control, $\beta = .25$, $t(1255) = 6.94$, $p < .001$, compared to the success condition.

We next we reconducted this model with the control condition as the reference group. We again observed a significant interaction between narcissism and condition showing that the relationship between narcissism and pride was stronger in response to failure than control, $\beta = .18$, $t(1255) = 3.43$, $p < .001$. This interaction remained significant controlling for self-esteem, $\beta = .21$, $t(1252) = 4.07$, $p < .001$. These results replicate the prior studies and support our pre-registered hypothesis, yet also advance our understanding beyond the prior studies by demonstrating that narcissists' pride response to failure is distinct to failure events; the relation between narcissism and pride is weaker in the neutral control condition, compared to failure condition. This pattern is consistent with the notion that narcissists defensively experience heightened pride, an agentic emotion, after failures, compared to contexts that do not threaten

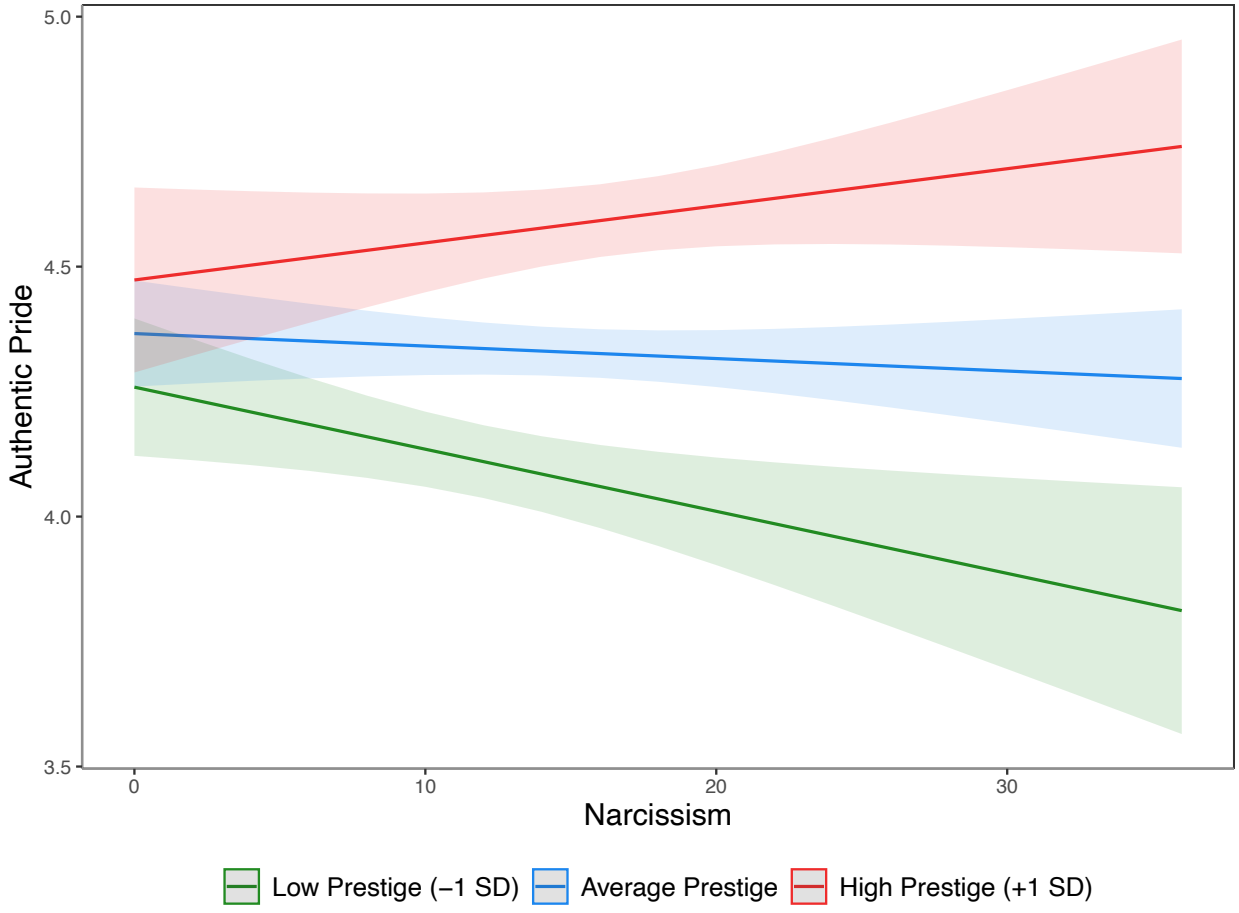
their sense of agency. Their increased pride in this situation may help remedy the self-concept threat that narcissists are thought to experience following failure. Enhancing pride may function to restore narcissists' valued sense of agency in the face of failure, shielding their self-concept from the ramifications of failing in an agentic domain such as school or work.

Does narcissists' pride in success depend on peers' responses?

We next tested whether prestige or loneliness moderated the extent to which narcissistic individuals felt pride about their successes. We conducted the same regression analyses as in Study 2 within the success condition (see Figure 6).

Figure 6

Interaction between Narcissism and Prestige Predicting Authentic Pride after Success, Study 4.



Note. SD = Standard Deviation. Narcissism and Authentic Pride are shown in unstandardized units.

Consistent with Study 2, an interaction emerged between narcissism and prestige, $\beta = .13$, $t(407) = 2.47$, $p = .01$, but not between narcissism and loneliness, $\beta = .08$, $t(407) = 1.66$, $p = .10$. Based on simple slope analyses, when narcissistic people felt lower in prestige (-1 SD), they felt significantly less authentic pride than those low in narcissism, $\beta = -.16$, $t(407) = -2.50$, $p = .01$. In contrast, when they felt higher levels of prestige (+1 SD), narcissists' pride was no different from those low in narcissism, $\beta = .09$, $t(407) = 1.41$, $p = .16$. When self-esteem was not included in the model, this interaction was reduced to non-significance, $\beta = .08$, $t(410) = 1.64$, $p = .10$, and consistent with all prior studies, the interaction appeared to be driven by the grandiose-exhibitionism facet of narcissism (see SOM5).

To test whether this pattern varied from that in the failure and control conditions, we next conducted a model predicting authentic pride from the three-way interaction between narcissism, prestige, and experimental condition. As in past models, success condition was the reference group. No significant interaction between narcissism and prestige emerged, $\beta = .03$, $t(1249) = 0.67$, $p = .50$, nor were there three-way interactions between narcissism, prestige, and condition, $\beta_{\text{Success-Control}} = -.05$, $t(1249) = -0.99$, $p = .32$; $\beta_{\text{Success-Failure}} = .04$, $t(1249) = 0.79$, $p = .43$. However, when we replaced the full NPI with the grandiose-exhibitionism subscale, we found a significant interaction between grandiose-exhibitionism and prestige in the success condition, $\beta = .09$, $t(1249) = 2.41$, $p = .02$, and one significant three-way interaction with the control condition, $\beta = -.11$, $t(1249) = -2.08$, $p = .04$. The three-way interaction with the failure condition was trending in the hypothesized direction but was non-significant, $\beta = -.07$, $t(1249) = -1.54$, $p = .12$. Examining the simple slopes nonetheless, the interaction between grandiose-exhibitionism and prestige was non-significant within the failure condition, $\beta = .02$, $t(1249) = 0.76$, $p = .44$. Thus, similar to the

results of the prior studies, it was only in response to success that felt prestige moderated grandiose-exhibitionist narcissists' experience of authentic pride.

Exploratory Analyses

To further explore the specific facets of narcissism that drive the associations observed here and in prior studies, we replicated our main analyses substituting narcissistic admiration and rivalry for the NPI. We first conducted a regression model in which authentic pride was regressed onto narcissistic admiration, narcissistic rivalry, and interactions between both facets and experimental condition. Replicating what was observed for the NPI, we found a significant interaction between narcissistic admiration and the success vs. failure condition, $\beta = .31$, $t(1252) = 5.95$, $p < .001$, indicating that although individuals high in narcissistic admiration reported greater authentic pride than people low in narcissistic admiration in response to success, $\beta = .21$, $t(1252) = 5.64$, $p < .001$, this relationship was significantly stronger in response to failure, $\beta = .53$, $t(1252) = 14.00$, $p < .001$. We also found an interaction between narcissistic admiration and the control condition, $\beta = .14$, $t(1252) = 2.74$, $p < .001$, indicating that the relationship between narcissistic admiration and authentic pride was also stronger in the control condition, $\beta = .35$, $t(1252) = 9.78$, $p < .001$, compared to success. We next conducted another model with the control condition as the reference group and found another interaction between narcissistic admiration and the control vs. failure conditions, indicating that the relationship between narcissistic admiration and authentic pride in the control condition was significantly weaker than in the failure condition, $\beta = -.17$, $t(1252) = -3.32$, $p < .001$.

Turning to narcissistic rivalry, we found a significant interaction with the success vs. failure conditions, $\beta = .19$, $t(1252) = 3.70$, $p < .001$, indicating that individuals high in narcissistic rivalry reported lower authentic pride than people low in narcissistic rivalry in

response to success, β = -.20, t(1252) = -5.32, p < .001, but did not differ in response to failure, β = -.003, t(1252) = -0.09, p = .93. The relationship between narcissistic rivalry and pride also did not differ between the success and control conditions, β = .03, t(1252) = 0.58, p = .56.

In sum, narcissistic admiration most strongly predicted pride in response to failure, more weakly predicted pride in response to a routine social outing (control condition), and most weakly predicted pride in response to success. Narcissistic rivalry, in contrast, was associated with less pride in response to success and a social outing, and was unrelated to pride in response to failure. The results for admiration thus directly replicate what was observed for the NPI in our prior analyses, suggesting that narcissists' pattern of pride responses to success and failure are primarily driven by the self-promotional, assertive admiration facet. That said, the self-protective, antagonistic rivalry facet seems to play a role as well, specifically for the difference between success and failure.

We next reconducted our models testing for the role of prestige in shaping narcissists' feelings of pride in response to success. We again replaced the NPI with the NARQ, and included interactions between prestige and narcissistic admiration and rivalry, respectively, in response to success. We also controlled for self-esteem and the interaction between self-esteem and prestige. No interactions emerged between admiration and prestige, β = .03, t(408) = 0.68, p = .50, or rivalry and prestige, β = .03, t(408) = 0.75, p = .45, suggesting that it is specifically the grandiose-exhibitionism facet of the NPI that drives the relationships uncovered here and in the prior studies, whereas the admiration and rivalry facets of narcissism, as measured by the NARQ, do not predict the same pattern of results.

Aggregate Analyses Across Studies

To obtain a better estimate of effect size, we next conducted a "mega-analysis" (Eisenhauer, 2021), in which we aggregated the data from Studies 1, 2, and 4. We then conducted our main analyses across studies using the aggregate data. Specifically, we used data from all six samples to test the interactions between narcissism and self-esteem, respectively, and success vs. failure experimental condition on authentic pride (N = 3031; see Table 10 and Figure 7). Given that participants completed different numbers of NPI items across studies, we standardized scores on the NPI within sample prior to aggregating the data.

Consistent with all prior studies and analyses, we found a significant interaction between narcissism and condition, such that narcissistic people reported greater pride in response to their failures compared to those low in narcissism, β = .25, t(3027) = 14.77, p < .001, but there was no difference in response to success, β = .01, t(3027) = 0.70, p = .48. Also consistent with all prior studies, this difference between conditions was driven primarily by the grandiose-exhibitionism facet of narcissism (see SOM5). We also found that people with high self-esteem reported greater pride than those with low self-esteem in response to both success and failure, β = .19, t(3027) = 11.53, p < .001 (see Figure 7). Based on an analysis of effect sizes in individual differences research (Gignac & Szodorai, 2016), the size of the interaction between narcissism and success vs. failure is near the median effect size in individual differences research.

We next reconducted this analysis while including the control condition from Study 4. Consistent with Study 4, interactions emerged with both the failure, β = .24, t(3457) = 10.11, p < .001, and the control, β = .19, t(3457) = 5.29, p < .001, suggesting that the relationship between narcissism and pride is stronger in response to failure and a social outing than in response to success.

Table 10

Left: Interaction Between Narcissism and Condition Predicting Authentic Pride, Aggregate Data. Right: Interaction Between Self-Esteem and Condition Predicting Authentic Pride, Aggregate Data.

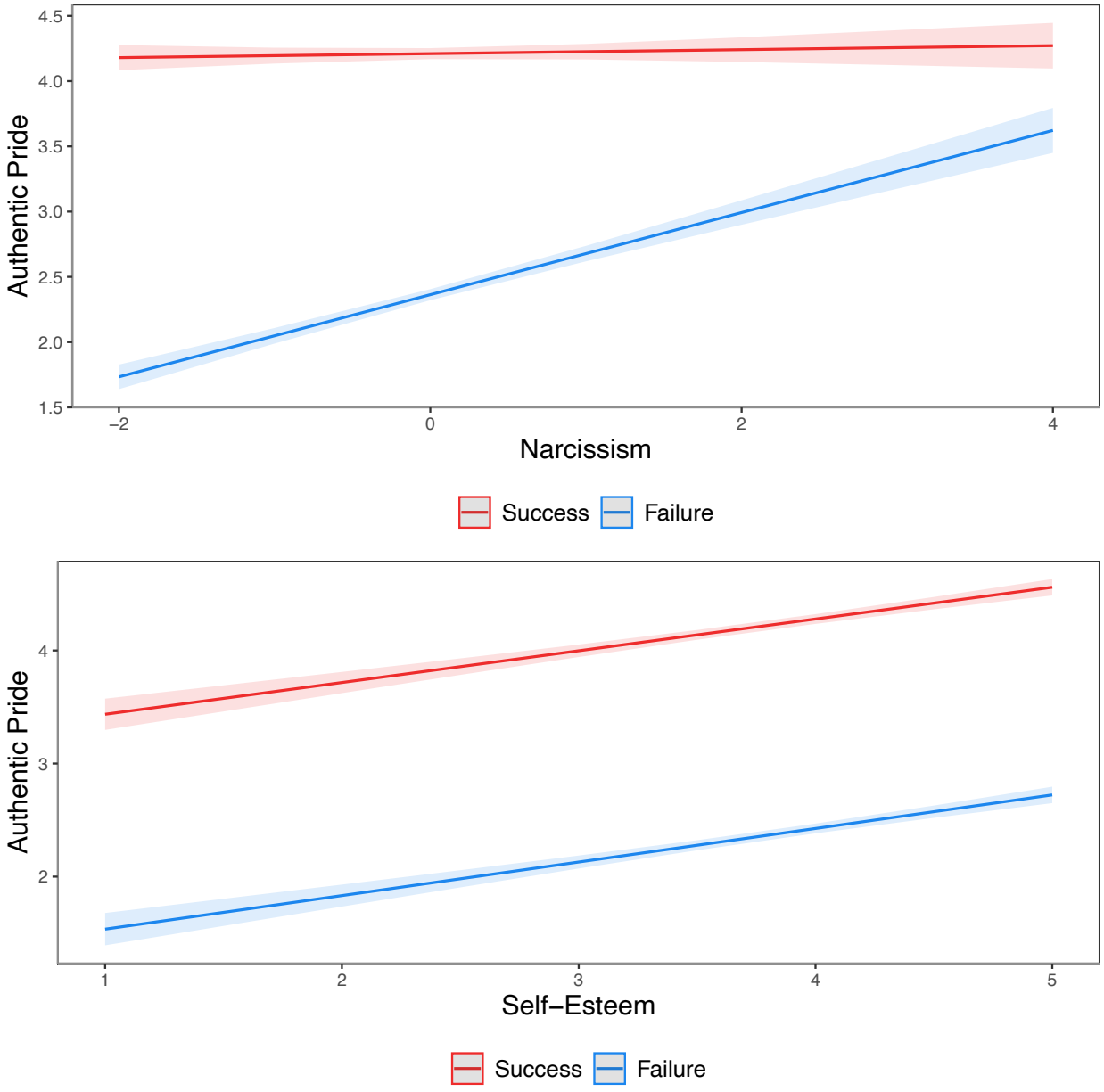
Narcissism			
Coefficient	*β*	*t*	*p*
(Intercept)	**.72**	**42.59**	**<.001**
Narcissism	.01 (-.03)	0.70 (-1.85)	.48 (.06)
Failure Condition	**-1.45**	**-60.47**	**<.001**
Narcissism x Failure Condition Interaction	**.24** **(.24)**	**9.82** **(10.20)**	**<.001** **(<.001)**

Self-Esteem			
Coefficient	*β*	*t*	*p*
(Intercept)	**.72**	**43.18**	**<.001**
Self-Esteem	**.19** **(.20)**	**11.53** **(11.96)**	**<.001** **(<.001)**
Failure Condition	**-1.46**	**-61.43**	**<.001**
Self-Esteem x Failure Condition Interaction	.01 **(-.05)**	0.46 **(-2.07)**	.65 **(.04)**

Notes. Condition is coded such that success is the reference group. All coefficients are standardized regression coefficients. Coefficients in parentheses represent the effect of narcissism controlling for self-esteem and vice versa. Bolded values indicate statistical significance, $p < .05$.

Figure 7

Interaction Between Narcissism (top) and Self-Esteem (bottom) and Experimental Condition Predicting Authentic Pride, Aggregate Data Across Studies 1, 2, and 4



Note. Narcissism is measured in standardized units given differences in the number of NPI items used across studies. Narcissism scores were standardized within each sample prior to aggregating the data.

We next used aggregate data from Studies 2 and 4 to test the interactions between narcissism and prestige and loneliness, respectively, predicting pride in response to success, as well as the corresponding interactions between self-esteem and these social response variables (N = 1789; see Figure 8). Consistent with the prior studies, a significant interaction emerged between narcissism and prestige, $\beta = .15$, $t(1098) = 5.17$, $p < .001$, which held in a model without self-esteem, $\beta = .14$, $t(1101) = 4.75$, $p < .001$. The magnitude of these interactions is between the 25th percentile and 50th percentile of effect sizes in individual differences research (Gignac & Sozodorai, 2016). Also consistent with the prior studies, decomposing simple slopes revealed that when narcissists felt less prestigious after a success (-1 SD), they reported significantly less pride than those low in narcissism who felt low in prestige, $\beta = -.25$, $t(1098) = -6.33$, $p < .001$. In contrast, when narcissists felt highly prestigious after a success (+1 SD), their pride did not differ from those low in narcissism, $\beta = .05$, $t(1098) = 1.50$, $p = .13$. Again, this null effect at high levels of prestige may be due to a ceiling effect of pride (M = 4.51 on a 5-point scale). Also consistent with the individual studies, supplemental analyses suggested that the interaction between narcissism and prestige in response to success was driven by the grandiose-exhibitionism facet of narcissism (see SOM5).

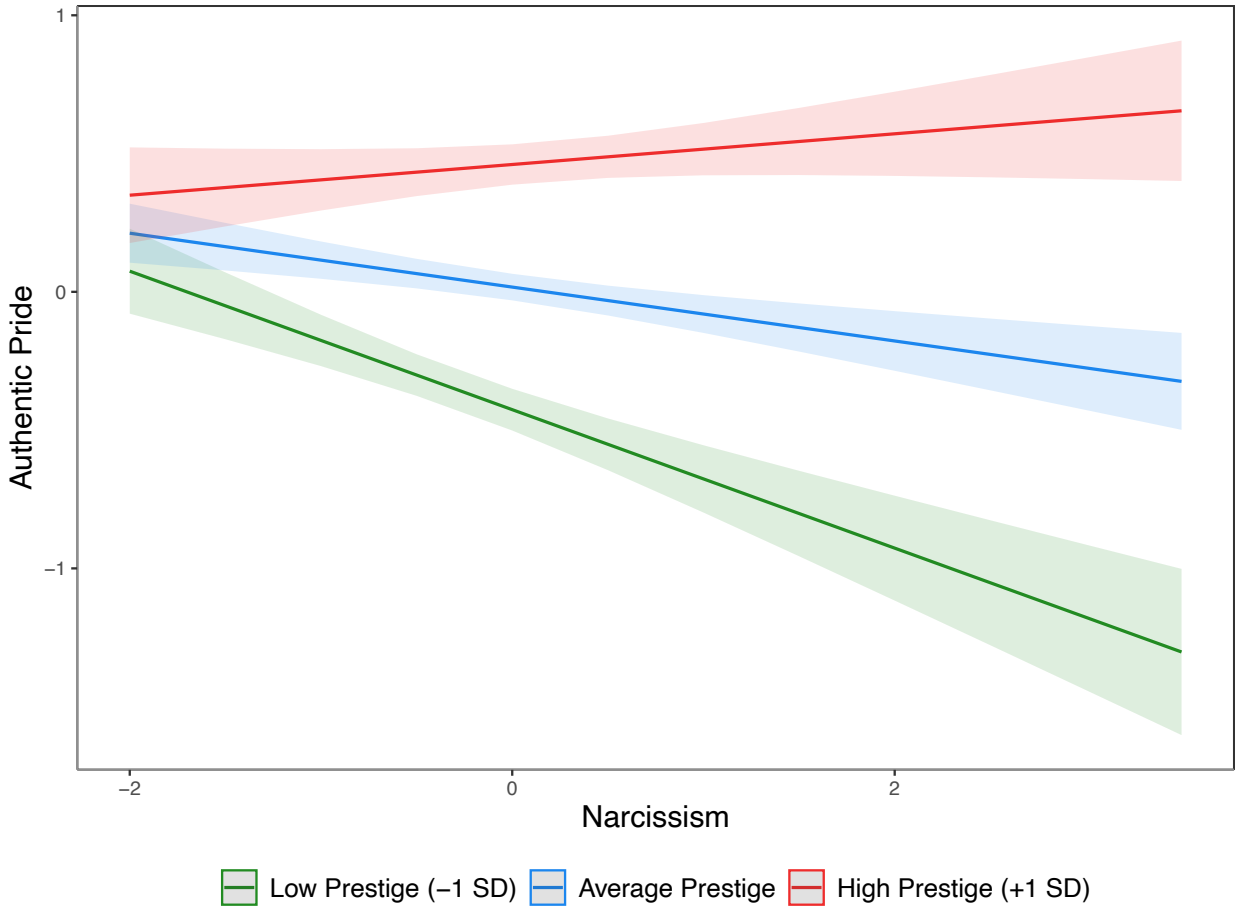
We did not observe any significant interactions in the same direction for self-esteem. However, we did observe an unexpected interaction indicating that people with high self-esteem felt less pride in their successes when they felt prestigious compared to when they felt low in prestige, $\beta = -.08$, $t(1098) = -3.20$, $p = .001$. This result, was unexpected, so we hesitate to interpret it without replication. More important for the current investigation, the interaction between self-esteem and prestige in response to success is clearly different from that between

narcissism and prestige in response to success, and each is robust to controlling for shared variance with the other.

Finally, to test whether the interaction between narcissism and prestige in the success condition was significantly different from the same interaction in the other experimental conditions, we conducted a regression analysis in which authentic pride was regressed onto the three-way interaction between narcissism, prestige, and condition as well as the three-way interaction between self-esteem, prestige, and condition. Consistent with prior studies, a significant interaction emerged between narcissism and prestige in the success condition, $\beta = .09$, $t(2616) = 4.13$, $p < .001$, and two significant three-way interactions emerged between narcissism, prestige, and the control condition included in Study 4, $\beta = -.12$, $t(2616) = -2.53$, $p = .01$, and the failure condition across studies, $\beta = -.06$, $t(2616) = -1.97$, $p = .049$. These three-way interactions indicate that the interaction between narcissism and prestige predicting pride is significantly stronger in response to success than failure or a neutral control.

Figure 8

Interaction Between Narcissism and Prestige Predicting Authentic Pride in Response to Success, Aggregate Data From Studies 2 and 4.



Note. SD = Standard Deviation. Narcissism and authentic pride are displayed in unstandardized units.

GENERAL DISCUSSION

Across six studies using multiple methods and sampling from two different populations, we uncovered two key findings regarding narcissists' emotional responses to success and failure. First, we found that narcissists feel greater pride than non-narcissists in response to failure, but not in response to success. In addition, including a control condition in Study 4 revealed that narcissists also experience greater pride than those low in narcissism in response to a recent social outing, consistent with past research suggesting that narcissists report greater pride than

non-narcissists at the trait-level (e.g., Tracy & Robins, 2007). Importantly, however, the relation between narcissism and pride in response to failure is stronger than that in response to a routine social outing, pointing to an additional psychological process that occurs in response to failure, beyond the trait-level association between narcissism and pride. Consistent with past research showing that narcissists report more positive self-relevant thoughts and feelings in response to failure, presumably because they defensively deny any self-relevant implications of negative feedback (e.g., Campbell et al., 2000; Hart et al., 2020; Horton & Sedikides, 2009; Rhodewalt & Eddings, 2002; Twenge & Campbell, 2003; Wallace et al., 2009), we interpret their elevated authentic pride in response to failure as another reflection of this defensive process, which serves to protect the narcissistic ego.

The second key finding to emerge from this research is that narcissists' feelings of pride in response to success are contingent upon their perception that the success led others to respect and admire them. The null relation between pride and narcissism that was observed in response to meaningful successes in their own lives (Studies 2 and 4) was qualified by a consistent pattern of moderation, suggesting that narcissists can feel pride in their successes to the same extent as non-narcissists, but only when they perceive their successes as enhancing their social status. In contrast, when narcissists do not believe that their successes led to an increase in prestige, they feel *less* pride than non-narcissistic individuals. This pattern emerged in two online studies with American adults, in which individuals recalled a recent real-world success experience, providing strong external validity. It also emerged in a controlled laboratory study with Canadian undergraduates, in which success was held constant and participants received an experimentally manipulated social response, providing strong internal validity. Study 3's methodology also

allowed us to demonstrate the causal influence of social feedback on narcissists' pride in their successes.

This well-replicated pattern also provides further support for our interpretation of narcissists' response to failure. The finding that narcissists' feelings of pride in response to success are contingent upon their perception that their success brought them prestige in the eyes of others indicates that their pride is influenced by external events. It is therefore unlikely that their elevated pride in response to failure represents a baseline tendency that is unrelated to that failure event. Indeed, the totality of the data collected here suggests that narcissists engage in some kind of internal psychological process following failure, which inflates their feelings of pride despite the negative self-relevant outcome. Although it is not possible to directly measure this underlying defensive process, we believe this is the most parsimonious explanation for the totality of outcomes observed, consistent with past research on narcissistic defensiveness (e.g., Campbell et al., 2000; Hart et al., 2020; Horton & Sedikides, 2009; Rhodewalt & Eddings, 2002; Twenge & Campbell, 2003; Wallace et al., 2009).

A third important contribution of this research is our determination of the specific kind of social feedback that influences narcissists' pride in their successes. In Studies 2 and 4, we measured the extent to which participants felt prestigious –that is, highly respected and admired—and the extent to which they felt lonely—that is, isolated and excluded—in response to success. Across studies, results suggest that narcissists feel greater pride than non-narcissists in response to success only if those successes bring them prestige. When their successes do not lead to this status gain, narcissists appear less able to take pride in their achievements. In contrast, for non-narcissists and those with high self-esteem, successes lead to pride irrespective of their peers' responses.

Although we found consistent support for this pattern across studies, it is noteworthy that a different pattern of simple slopes emerged across methods. In Studies 2 and 4, where participants recalled personally meaningful successes from their own lives that often involved years of effort and preparation to achieve, narcissists who felt prestigious reported similarly high levels of authentic pride as those low in narcissism. In contrast, when they did not perceive respect and admiration from their peers, narcissists consistently reported less authentic pride than their non-narcissistic peers. In Study 3, however, success was experienced in the form of positive feedback on a psychology quiz, and narcissists felt greater pride than non-narcissists when they subsequently interacted with a respectful and admiring confederate, but their pride did not differ from those low in narcissism when they instead interacted with an aloof confederate.

Despite this difference in the pattern of simple slopes, Studies 2-4 converged on the finding that narcissists report less pride when they feel less respected and admired by others. All three studies thus show that successes which do not cause narcissists to feel respected and admired reduce their pride in the success. Nonetheless, the different patterns of simple slopes raises an intriguing question for future research. One potential explanation is that narcissists are particularly likely to feel pride in successes that occur in laboratory contexts, which are less likely to be meaningful to their lives outside of the study. This interpretation could explain why narcissistic individuals felt greater pride than non-narcissists following success in Study 3 only. In Studies 2 and 4, successes that increased participants' self-perceived prestige were uniformly prideful for narcissists and non-narcissists alike, suggesting that non-narcissists felt greater pride in these experiences than from doing well on a psychology quiz in a lab study and interacting with an Admiring partner afterward.

Supplemental analyses, in which we examined narcissism in terms of its three facets of leadership-authority, grandiose-exhibitionism, and entitlement-exploitativeness (Ackerman et al., 2011), produced a fourth novel finding: the grandiose-exhibitionism facet of narcissism is primarily responsible for the effects observed. Grandiose-exhibitionism refers to the narcissistic tendency to be vain, self-absorbed, and seek attention from others, so it makes sense that individuals high in this facet base their feelings of pride on how others view them. Leadership-authority and entitlement-exploitativeness, in contrast, were not consistently associated with this tendency.

Study 4 also included an additional measure of narcissism, the Narcissism Admiration and Rivalry Questionnaire (NARQ; Back et al., 2013), and found that narcissistic admiration most closely mirrored the pattern of relations uncovered between NPI narcissism and pride in response to success and failure. This finding is consistent with prior evidence that grandiose-exhibitionism reflects narcissistic admiration more than narcissistic rivalry (Back et al., 2013). However, rivalry predicted a similar pattern, suggesting that both the agentic and antagonistic features of narcissism may be relevant to their emotional responses to success. That said, the interaction between narcissism and prestige predicting pride responses to success was not well accounted for by either admiration or rivalry, suggesting that the grandiose-exhibitionism subscale of the NPI is more uniquely suited to explaining that relationship.

Theoretical Implications

These studies support the long-held theory that narcissists respond defensively to ego-threatening events like failure by disregarding negative feedback provided by the event (e.g., Kernis & Sun, 1994) and enhancing their agentic qualities (e.g., Horton & Sedikides, 2009). Authentic pride is an agentic emotion; it is the primary emotion people feel in response to hard-

earned successes (Dickens & Robins, 2022; Mercadante et al., 2021; Tracy & Robins, 2004; 2007; Weidman et al., 2016; Witkower et al., 2022). The finding that narcissistic individuals feel greater authentic pride than non-narcissists in response to failure is thus consistent with past research and theory demonstrating narcissistic defensiveness in this situation (Bosson et al., 2008; Horton & Sedikides, 2009; Kernis, 2003; Kernis & Sun, 1994; Wallace et al., 2009). By enhancing authentic pride in the face of failure, narcissistic individuals may safeguard their self-concept and restore their aggrandized self-image. In contrast, people low in narcissism may be more willing and able to express disappointment after negative events like failure. At a minimum, they do not seem to feel a need to defensively boost their pride in these situations.

An unexpected finding from this research is that, counterintuitively, narcissistic people do not seem to disregard others' negative responses to their successes (i.e., responses that make them feel less prestigious) in a similarly defensive manner. Instead, as Studies 2, 3, and 4 show, these responses cause them to feel less pride. This well-replicated finding suggests that success leads to a different psychological process in narcissists than failure. The positive self-relevant feedback may inhibit narcissists' defensiveness. As a result, even when followed by a more negative social reaction, narcissists' defense mechanisms remain dormant, causing them to respond in a vulnerable fashion to the subsequent negative social response to their success. Further testing this theoretical account is an important direction for future research.

More broadly, the present research provides new support for prior studies indicating that the self-favorability demonstrated by narcissists is different from that of people with high self-esteem. In contrast to narcissists' contingent emotional responses to success, those with high self-esteem show a more consistent response; they feel higher levels of pride than people with low self-esteem regardless of whether they succeed or fail, and regardless of how others respond.

These findings also provide new support for the claim that individuals with high self-esteem derive their self-worth from internal factors, making their self-conscious emotions less externally contingent (Crocker et al., 2003; Kernis, 2003). Conversely, those with low self-esteem likely feel less pride across contexts as a result of internal factors as well.

These findings also support theories of narcissism that position status striving as narcissists' primary motivation (e.g., Back et al., 2013; Campbell & Foster, 2007; Grapsas et al., 2020; Mahadevan et al., 2019; Morf & Rhodewalt, 2001; Zeigler-Hill et al., 2019). Our finding that perceived prestige shapes narcissistic individuals' emotional responses to their successes suggests that they view these successes as an instrumental means to achieving greater social approval and admiration, rather than as accomplishments with intrinsic value. This research thus augments our understanding of narcissists' chronic pursuit of status, by demonstrating that failing to attain respect and admiration from others can make successes worthless in their eyes. This conclusion is consistent with research suggesting that narcissists work harder and perform better when there is an opportunity for public glory (Nevicka et al., 2011; Heyde et al., 2023; Wallace & Baumeister, 2002), and prefer romantic partners who admire them more than partners with whom they feel emotionally intimate (Campbell, 1999). Moreover, these findings might help account for equivocal past research on narcissists' affective reactions to success (e.g., Brummelman et al., 2018; Grapsas et al., 2021; 2022; Kernis & Sun, 1994; Rhodewalt et al., 1998; Zeigler-Hill et al., 2010; 2019). The previous mixed results are likely due to variability in others' reactions to narcissists' success, consistent with the present finding that narcissism is unrelated to pride in response to success when perceived status is not considered.

The present research also has implications for the understanding of narcissistic individuals' self-esteem development. The finding that narcissists' feelings of pride in their

successes are driven by their perceptions of others' appraisals of them suggests that narcissists have contingent self-worth based on others' approval. This contingency, in turn, may hinder narcissists' development of genuine self-esteem. Given that achievements in agentic domains are an important basis of self-evaluation (e.g., Fetvadjiev & He, 2018; Lönnqvist et al., 2009) and self-esteem development (Dapp et al., 2023), and authentic pride experienced in response to achievements is likely to build self-esteem over time (Tracy et al., 2009), the present findings suggest that narcissistic individuals may have greater difficulty deriving self-worth from their professional and academic achievements compared to people low in narcissism. If narcissists attain comparable levels of authentic pride to non-narcissists only from achievements that make them feel admired by others, they are likely to feel less pride in their successes on average. Ultimately, this tendency might cause them to develop lower self-esteem over time compared to those low in narcissism with comparable accomplishments in professional and academic domains.

Limitations and Future Directions

The present studies have considerable strengths that bolster our confidence in the results, but they also suffer from certain limitations. First and foremost, the findings from Studies 1-3 emerged from exploratory research. However, Study 4 tested and provided support for pre-registered hypotheses that emerged from those prior exploratory results. Furthermore, the multi-study, multi-method, multi-population nature of this research, and the replication of key results across studies, allows for confidence in the findings.

In addition, pride and narcissism were measured using self-report methods. There are several strengths to this approach; self-reports are considered the best way to access participants' internally experienced emotions and personality traits, and the fact that we did not observe a

tendency for narcissists to consistently report elevated levels of pride in response to success suggests that these findings cannot be attributed to a general narcissistic tendency to self-enhance or to possible shared method variance between narcissism and authentic pride. Nonetheless, pride can also be reliably assessed through nonverbal behavioral coding (Tracy & Robins, 2007b). Future research might adopt this approach to obtain a potentially more nuanced window into narcissists' pride responses to failure. For example, if these individuals' elevated feelings of pride in response to failure are a defensive response, it is possible that a different pattern would emerge if less controllable, more spontaneous, nonverbal behaviors were assessed in addition to self-reports.

Moreover, across studies we observed that narcissists' feelings of authentic pride, rather than hubristic pride, were contingent on the social responses of others (see SOM4 for results concerning hubristic pride across studies). Nonetheless, exploratory analyses across studies revealed an intriguing finding related to hubristic pride. Narcissists seem to report greater hubristic pride in response to success when they feel lonely, and less when they feel more socially included. This interaction is in the opposite direction of that observed between narcissism and prestige predicting authentic pride, suggesting that positive social feedback relevant to status may boost narcissists' authentic pride in response to success, whereas positive social feedback relevant to inclusion may diminish their hubristic pride. This exploratory finding is consistent with prior theoretical models suggesting that hubristic pride serves as a narcissistic defense mechanism, used by these individuals to shore up self-worth in the face of social rejection (Tracy & Robin, 2003). This possibility is an important direction for future research.

Finally, we tested a limited set of situational contexts in this research: agentic success, agentic failure, and a recent social outing. Although aggregate analyses across Studies 2 and 4

suggest that narcissists' contingent sense of pride, which varies depending on their felt prestige, occurs uniquely in response to success compared to these other situations, it is not clear that agentic success is the only situation in which this pattern would emerge. It is possible that the same pattern occurs across situations where narcissists expect positive social feedback, and this is an important question for future research.

Conclusion

Using mixed methods and drawing on samples from two populations, four studies provide converging evidence that narcissistic individuals' pride in their successes is influenced by the reactions of others. We provide robust and reliable experimental and correlational evidence for this pattern, as well as experimental evidence of a causal association between social feedback and pride among narcissists. These findings are consistent with several theories of narcissism that position status attainment as a primary motivation, and also shed new light into prior mixed results on narcissists' responses to success. Overall, these findings add new insight to our understanding of narcissistic personality and how it differs from high self-esteem.

Constraints on Generality

The present research investigated the association between narcissism and pride in response to success and failure among American adults and Canadian undergraduate students. We chose these populations because they were accessible, and the use of two populations allowed us to test whether results generalize across these groups. However, we cannot be sure that these findings generalize to other populations, especially those from non-WEIRD (Western, Educated, Industrialized, Rich, and Democratic; Henrich et al., 2010) countries, and future research should investigate the generality of these findings to other countries and cultures. In addition, our results do not speak to whether these findings apply to children as well as adults—another fruitful avenue for future research. We also investigated emotional responses to a limited set of situational contexts in this research, namely agentic success, agentic failure, and a recent social outing. Future research is needed to explore whether the present findings also apply to other situations, such as social successes or failures.

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