

Mitigating Malicious Envy: Why Successful Individuals Should Reveal Their Failures

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People often feel malicious envy, a destructive interpersonal emotion, when they compare themselves to successful peers. Across 3 online experiments and a field experiment of entrepreneurs, we identify an interpersonal strategy that can mitigate feelings of malicious envy in observers: revealing one's failures. Despite a general reluctance to reveal one's failures—as they are happening and after they have occurred—across four experiments, we find that revealing both successes and failures encountered on the path to success (compared to revealing only successes) decreases observers' malicious envy. This effect holds regardless of the discloser's status and cannot be explained by a decrease in perceived status of the individual. Then, in a field experiment at an entrepreneurial pitch competition, where pride displays are common and stakes are high, we find suggestive evidence that learning about the failures of a successful entrepreneur decreases observers' malicious envy while increasing their benign envy and decreasing their perceptions of the entrepreneur's hubristic pride (i.e., arrogance) while increasing their perceptions of the entrepreneur's authentic pride (i.e., confidence). These findings align with previous work on the social-functional relation of envy and pride. Taken together, our results highlight how revealing failures encountered on the way to success can be a counterintuitive yet effective interpersonal emotion regulation strategy.

Keywords: envy, malicious envy, emotion regulation, disclosure

In early 2016, Princeton University professor Johannes Haushofer posted a “CV of failures” on his professional website. In this document, he listed positions and awards for which he had applied and been rejected in his career (Stefan, 2010). When asked about the decision to publicize his failures, Haushofer explained, “Most of what I try fails, but these failures are often invisible, while the successes are visible. I have noticed that this sometimes gives

others the impression that most things work out for me. As a result, they are more likely to attribute their own failures to themselves, rather than the fact that the world is stochastic, applications are crapshoots, and selection committees and referees have bad days” (as cited in Swanson, 2016). Haushofer's “CV of failures” received an explosion of positive attention, praise, and news coverage.

Indeed, successes and achievements tend to be more publicly observable than failures. Successes appear on resumes, are highlighted in public profiles, and are shared among people with pride. In contrast, the failures and setbacks that individuals encounter along the path to success tend to be less observable and are often purposefully hidden from others. Indeed, the results of a simple pilot study we ran showed that people are far less likely to reveal their failures than their successes to others—both while the experiences are happening as well as after the fact.¹

When individuals display their successes, the people around them often feel malicious envy, a destructive interpersonal emotion aimed at harming the envied individual. Though previous research on emotion regulation has focused on intrapsychic strategies such as suppression and cognitive reappraisal to regulate negative emotional experiences like anxiety and anger (e.g., Brooks, 2014; Gross, 1998; Hofmann, Heering, Sawyer, & Asnaani, 2009; Mauss, Cook, Cheng, & Gross, 2007), extant research has identified very few strategies to regulate interpersonal emotions like envy (Salovey & Rodin, 1988; Smith & Kim, 2007; Wolf, Lee, Sah, & Brooks, 2016).

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We are grateful for feedback on earlier versions of this research presented at the Society for Affective Science, International Association for Conflict Management, and Academy of Management conferences, and from members of the NERD lab at Harvard Business School. Some of the ideas from this article were featured in the New York Times and on behavioralscientist.org. We report how we determined all sample sizes, data exclusions, manipulations, and measures, and we received IRB approval for all studies. The data, analyses, and materials from each study are available on OSF.

We discuss the findings from our primary dependent variables in this article. Other variables we collected were not included in the analyses because we did not have *a priori* hypotheses concerning those variables, which are included in all study surveys uploaded on OSF. We have uploaded all of our measures and study materials on OSF (accessible at this link: https://osf.io/hxpfy/?view_only=5a99d1c6179c4f1dae4ac550e2d1ca5).

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¹ The full materials, data, and code for this study are available on OSF.

In the current work, across three online experiments and a field experiment, we address this gap in the emotion regulation literature. We predict that the interpersonal strategy of revealing failures—rather than hiding them—decreases malicious envy. We also investigate whether the effects of revealing failures depend on the envied person's level of status or success, where revealing failures may be helpful for high-status individuals, but perhaps ineffective (or damaging) for moderate-status individuals. Finally, we investigate a potential mechanism: We expect that revealing only successes represents a display of hubristic pride (i.e., arrogance) that is likely to trigger feelings of malicious envy (Lange & Crusius, 2015), whereas revealing successes and failures represents a display of authentic pride (i.e., confidence) that is likely to trigger feelings of benign envy among observers.

Interpersonal Emotion Regulation of Malicious Envy

Although previous work on emotion regulation has mostly addressed intrapsychic strategies such as reappraisal and suppression (e.g., Brooks, 2014; Gross, 1998; Hofmann et al., 2009; Mauss et al., 2007), an emerging stream of research emphasizes the importance of interpersonal emotion regulation (Niven, Totterdell, & Holman, 2009; Wolf et al., 2016; Zaki & Williams, 2013). Interpersonal emotion regulation occurs when one person deliberately regulates another person's emotion in the context of a social interaction (Zaki & Williams, 2013). This budding research domain calls for an understanding of the interplay between the target and observer (Neisser, 1980; Zaki & Williams, 2013). We apply this framework to study the interpersonal regulation of malicious envy.

Social-functional approaches to emotion propose that at the interpersonal level, emotions arise and convey information regarding social hierarchy, and function to coordinate social interactions (Fischer & Manstead, 2008; Fischer & Van Kleef, 2010; Frijda, 1986; Keltner & Haidt, 1999). Envy is a situational emotion triggered by upward social comparison (Cohen-Charash, 2009) that occurs when another person attains an advantage that one desires (Smith & Kim, 2007). According to Parrott and Smith's (1993) classic definition, "envy occurs when a person lacks another's superior quality, achievement, or possession and either desires it or wishes the other lacked it" (p. 906). Envy arises especially when one feels similar enough to the other person that social comparison is salient (Parrott & Smith, 1993; Salovey & Rodin, 1984), and when the other person succeeds in an area that is self-relevant to the observer (Festinger, 1954; Salovey & Rodin, 1984, 1991; Smith & Kim, 2007; Tesser, Millar, & Moore, 1988).

Traditional scholarship on envy has almost exclusively focused on state-level envy, sometimes called *episodic envy*, which captures hostile feelings that could lead to malicious actions (Cohen-Charash, 2009; Smith & Kim, 2007). More recently, research has delineated envy into two distinct types: malicious envy and benign envy. Both malicious and benign envy are unpleasant emotional experiences and result from self-relevant upward social comparison (van de Ven, Zeelenberg, & Pieters, 2009). However, the two types differ in their appraisal patterns and resulting motivations. Appraising someone as undeserving and feeling low personal control can cause the observer to experience malicious envy, with a motivation to pull down the envied other. On the other hand, appraising someone as deserving and feeling high personal control

can cause the observer to experience benign envy, with a motivation to improve oneself (van de Ven et al., 2009; van de Ven, Zeelenberg, & Pieters, 2012). A taxometric analysis of envy, which tests for underlying categorical structure, supports the existence of benign envy as an emotion distinct from malicious envy (Falcon, 2015). Confronting a status challenge, one can experience malicious envy and thus pull the other person down or experience benign envy and thus pull oneself up (Lange & Crusius, 2015; van de Ven et al., 2009). In this work, we focus primarily on the more insidious type: malicious envy.

Prior research has documented a wide array of undesirable behavioral outcomes associated with malicious envy. For example, malicious envy causes people to feel justified to engage in unethical behavior (Schweitzer & Gibson, 2008) and use more deception in negotiations (Moran & Schweitzer, 2008). In the workplace, this type of envy is ubiquitous and leads to many harmful outcomes (Duffy, Shaw, & Schaubroeck, 2008; Vecchio, 2000). When people feel envious and perceive unfairness in the workplace, they engage in counterproductive work behavior to harm others (Cohen-Charash & Mueller, 2007). For example, malicious envy has been shown to reduce cooperative behavior (Parks, Rumble, & Posey, 2002), group cohesion, effectiveness, and performance (Duffy & Shaw, 2000), and to diminish organizational productivity (Bedeian, 1995).

At times, the negative behavioral consequences of malicious envy can be extreme. Experiencing this type of envy can elicit harmful and hostile behavior toward envied others (Cohen-Charash, 2009; Dunn & Schweitzer, 2005), such as actively damaging the other person's position (van de Ven et al., 2009), dishonestly hurting the other person (Gino & Pierce, 2009), or paying money to decrease an envied other's income (Zizzo & Oswald, 2001). The distinct experience of malicious envy as a hostile motivational force likely elicits these behavioral outcomes (van de Ven et al., 2009, 2012; van de Ven, Zeelenberg, & Pieters, 2011a).

Although malicious envy feels painful and unpleasant (e.g., Van de Ven et al., 2009), and its outcomes can be destructive, few researchers have identified strategies to regulate malicious envy (Salovey & Rodin, 1988; Smith & Kim, 2007). Some research has identified ways to cope with the behavioral consequences of being envied, such as sharing a reward (Zell & Exline, 2010), acting prosocially (van de Ven, Zeelenberg, & Pieters, 2010), or revealing irrelevant personal information to increase perceptions of warmth (Moran, Schweitzer, & Miller, 2009). In the current work, however, we investigate a novel interpersonal strategy for decreasing the incidence of malicious envy: revealing failures that occurred along the path to success.

Regulating Malicious Envy by Revealing Failures

Although successful individuals tend to understand the negative effects of being envied (Exline & Lobel, 1999; van de Ven et al., 2010), the literature on envy has overlooked actions the envied other might take to stave off ill will (van de Ven et al., 2010). An interpersonal emotion regulation approach would suggest that the envied other may be able to deliberately change her behavior to regulate observers' malicious envy. In our current work, we consider the decision to reveal only successes or to reveal both successes and failures. Consistent with prior research (e.g.,

Feather, 1969; Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998), we define a success as a desired outcome and a failure as an undesired outcome. We expect that an envied individual's disclosure of successes and failures will influence observers' feelings of malicious envy.

Some prior work has focused on the effects of self-promotion (i.e., revealing one's successes). For example, people overestimate the positive consequences of self-promotion (Berman, Levine, Barasch, & Small, 2015; Scopelliti, Loewenstein, & Vosgerau, 2014), and tend to frame their achievements as effortless and easy (Steinmetz & O'Brien, 2016). People aim to construct a positive impression (Baumeister, 1982; Jones & Pittman, 1982; Leary & Kowalski, 1990) and to associate themselves with positive events rather than negative events (Cialdini & Richardson, 1980). Furthermore, people conceal imperfections about themselves (Hewitt et al., 2003), inhibit displays of failure during competitions (Tracy & Matsumoto, 2008), and avoid disclosing personal information that they think would elicit social disapproval (DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). Revealing only positive information (i.e., successes) about oneself is rampant in face-to-face interactions, such as during the telling of success stories in interview settings (Gilmore & Ferris, 1989; Stevens & Kristof, 1995), and online via social networking platforms (Chou & Edge, 2012). However, self-promotion tends to decrease likability and increase observer envy (Godfrey, Jones, & Lord, 1986; Krasnova, Weninger, Widjaja, & Buxmann, 2013; Scopelliti et al., 2014).

Although revealing only negative information (i.e., failures) about oneself is self-deprecating and may elicit negative evaluations from others (e.g., Zell & Exline, 2010), the modest presentation of one's achievements generates favorable responses (e.g., Wosinska, Dabul, Whetstone-Dion, & Cialdini, 1996). It may be possible for successful individuals to speak about their failures without hiding or downplaying their achievements (Foster, 1972). And although successful individuals may be hesitant to reveal their failures, we expect that revealing the failures they encountered on the path to their successes will have positive effects.

Prior work by Jordan et al. (2011) suggests that people are less likely to share their negative emotional experiences as compared with their positive emotional experiences with others. We hypothesize a similar pattern in communicating personal failures and successes: people are more likely to hide their failures than their successes, both although the failures are happening and after they have occurred. Despite the positive consequences of revealing failures, such as improving well-being and increasing social closeness (Holmes, 1991; Pennebaker, 1997, 1989), people may be less likely to reveal their failures than their successes to others. In contrast, observers are intimately aware of their own successes and failures in life because they experience them firsthand. Because envy is highly related to an inferior evaluation of the self compared to another person (Miceli & Castelfranchi, 2007; Smith, 2004), the limited information people know about successful individuals' failures may increase the salience of one's own failures by comparison. Indeed, the display of overstated self-promotional content has been shown to elicit feelings of inferiority among observers (Appel, Crusius, & Gerlach, 2015; Chou & Edge, 2012; Krasnova et al., 2013).

Possible Mechanisms Underlying the Effects of Revealing Failures on Envy

We explore the connections between benign versus malicious envy and authentic versus hubristic pride when people reveal only successes or both failures and successes. The social function of envy is to reduce the status difference between oneself and a successful other, and envy is often triggered by a successful person's display of pride (Lange & Crusius, 2015). People feel pride when they attribute their own success to internal factors (Tracy & Robins, 2004a; Tracy, Shariff, & Cheng, 2010) and display pride to communicate their high status to others (Cheng, Tracy, & Henrich, 2010; Shariff & Tracy, 2009; Williams & DeSteno, 2009). Attributing one's achievement to internal and uncontrollable causes, such as talent, conveys hubristic pride, while attributing the achievement to internal and controllable causes, such as effort, conveys authentic pride (Tracy & Robins, 2004a; Tracy & Robins, 2007).

As described by the social information (EASI) model, which extends from the social-functional approach to emotion, emotional expressions regulate social interaction by triggering inferences and affective responses in observers (Van Kleef, 2009; Van Kleef, Van Doorn, Heerdink, & Koning, 2011). When a successful individual displays pride, she signals her superior accomplishment. In response, the observer infers the self-relevance of the accomplishment and feels inferior by comparison, leading to feelings of observer envy (Parrott & Smith, 1993; Salovey & Rodin, 1984; Smith & Kim, 2007).

When the target only talks about her successes, others may attribute her success to internal and uncontrollable factor, and perceive her disclosure as a display of hubristic pride (Lange & Crusius, 2015; Tracy & Prehn, 2012). People attend to verbal expressions in order to infer hubristic versus authentic pride (Tracy & Prehn, 2012; Tracy & Robins, 2004b), and consistent with the fundamental attribution error (Ross, 1977), people tend to attribute the target's successes to an internal factor like talent, even if those successes were in fact the result of effort (or a combination of both). Perceptions of hubristic pride elicit malicious envy (Lange & Crusius, 2015; van de Ven et al., 2012).

On the other hand, disclosing failures that occurred along the way to success highlights how much effort the individual exerted to overcome those obstacles, information that is often unobservable. Therefore, when the target reveals successes and failures, compared to successes only, observers may perceive less hubristic pride and feel less malicious envy.

Furthermore, when a successful person reveals both successes and failures, compared to only successes, observers may perceive more authentic pride. Extant research suggests that, on an organizational level, increasing process transparency tends to increase perceptions and appreciation of the effort expended (Buell & Norton, 2011; Buell, Kim, & Tsay, 2017). On an individual level, when a person who is ultimately successful reveals personal failures from the past, observers are likely to attribute this person's success to effort, and thus may perceive more authentic pride. In turn, perceiving authentic pride is likely to trigger benign envy (Lange & Crusius, 2015). By revealing failures that occurred along the way to success, thereby increasing the transparency of the process underlying the achievement, the successful other offers useful information that helps observers learn about the process

(Lee & Duffy, 2014). Observers may view this person as deserving of respect for the success (Cheng et al., 2010; Tracy et al., 2010) and feel that they can emulate the individual to reach the same level of success (Lange & Crusius, 2015; Tracy & Prehn, 2012). Thus, we posit that revealing both failures and successes elicits benign envy.

A reasonable alternative explanation is that revealing failures decreases one's status in the eyes of others, and thus may decrease envy in general. Respect and admiration are two main components of status (Fast, Halevy, & Galinsky, 2012; Fiske, 2010; Gruenfeld & Tiedens, 2010; Magee & Galinsky, 2008). Revealing failures may decrease an observer's respect and admiration of the achiever's overall accomplishments and may thus drive a corresponding decrease in envy. In contrast, we predict that revealing failures decreases only a specific type of envy (malicious envy), and increases benign envy, whereas perceived status remains unchanged.

Prior work in persuasion and marketing suggests why this might be so. For example, two-sided messages, such as ones that reveal both positive and negative information about a product, compared to only positive information, increase evaluations of the product (e.g., Crowley & Hoyer, 1994; Kamins & Marks, 1987; Pechmann, 1992; Smith & Hunt, 1978). In addition, prior work on the "blemishing effect" shows that revealing positive and some negative information about a target, compared to revealing only positive information, increases consumers' positive impression of the target (Ein-Gar, Shiv, & Tormala, 2012). In the current work, we investigate how these effects extend to people (rather than products), by testing how revealing failures influences observer envy.

Overview of Studies

Across four studies, we investigate revealing failures as an interpersonal strategy to mitigate malicious envy. First, in Study 1, we test the main effect of revealing failures on malicious envy in observers. Next, in Studies 2A–2B, we explore perceptions of status as a potential explanation for the decrease in malicious envy: Does revealing failures decrease the observer's evaluation of the achiever's overall accomplishments and their admiration, or just malicious envy? Finally, in Study 3, we investigate a different mechanism: how revealing failures influences malicious envy, benign envy, hubristic pride, and authentic pride in a field experiment set in an entrepreneurial pitch competition.

Study 1: Mitigating Malicious Envy

In Study 1, we test our primary hypothesis that revealing failures along with successes (compared to revealing successes alone) decreases the malicious envy felt toward high achievers.

Method

Participants. We received institutional review board (IRB) approval for all of the studies reported in this paper. We recruited 301 participants on Amazon's Mechanical Turk to participate in a study in exchange for \$3 (all participants were U.S. residents). The sample size targeted 100 participants per condition, which we predicted as an adequate sample size to detect an effect. Because envy arises among peers (people who are similar to each other),

we recruited participants in a specific age range. Because 62% of workers on Mechanical Turk are between 18 and 30 years of age (Ross, Irani, Silberman, Zaldivar, & Tomlinson, 2010), we recruited participants between 19 and 26 years of age to maximize envy.

Design and procedure. In this study, we randomly assigned participants to one of three between-subjects conditions: only successes revealed, successes and failures revealed, and successes and extra information revealed. The main dependent measure was malicious envy felt toward the high achiever.

Participants agreed to participate in a study about career interests and experiences, entitled a "career assessment study" (Moran et al., 2009; Moran & Schweitzer, 2008). Whether an individual compares himself to another person depends on perceived similarity (Festinger, 1954; Schaubroeck & Lam, 2004) and the self-relevance of the successful person's accomplishments (Lockwood & Kunda, 1997; Salovey & Rodin, 1984; Tesser et al., 1988). Thus, the other participant's biography needed to satisfy the conditions of similarity and self-relevance to elicit envy, as envy arises especially in response to the success of peers or similar others (Smith & Kim, 2007; Tesser et al., 1988). To address this, we asked participants to complete a "demographic survey" of their own age, gender, and professional domain of interest to customize the subsequent experimental stimuli they viewed during the study. For example, when the participant chose a particular professional domain from a multiple-choice list, that same domain was shown in the biography of another participant that they would read subsequently. The other person's age and gender also exactly matched their own.

We also asked participants to describe their professional experience in a short biography, to elicit direct comparison with the biography of the other participant. To disguise the similarities, we also included additional information about this fictional person, including a name (Eric or Erica) and favorite hobby (tennis), to make this person's profile seem more believable. The additional information was held constant across experimental conditions. The use of prepopulated descriptions has been used extensively in previous research to elicit upward social comparison (Lockwood & Kunda, 1997) and envy (Moran & Schweitzer, 2008).

Each participant viewed a short biography purportedly written by the other participant (along with their age, gender, professional field, first name, and favorite hobby). The biography was actually a fictional paragraph written in first person (see the Appendix for full stimuli across all studies). In the short biography, we included accomplishments that were logically relevant to two age groups: Participants ages 19–22 were shown a biography of a successful college student, and participants ages 23–26 were shown a biography of a successful young professional.

Across all three experimental conditions, participants read the biography of a peer who had achieved professional success, such as winning a fellowship competition or landing a prestigious job. For instance, the peer made \$60,000 a year, a salary that would be enviable for participants from Mechanical Turk, where the average household salary of a U.S. worker is about \$40,000 a year (Ross et al., 2010). In the "only successes revealed" condition, there was no other information in the biography.

In the "successes and failures revealed" condition, participants read a few additional lines of the biography that described professional failures. Finally, in the "success and extra information"

condition, in addition to the successes, participants read a few additional lines of the biography that described neutral information (i.e., the other person's MTurk worker ID number). We include the three biographies in the Appendix. We included this third condition to control for the length of the biography—so we could disentangle the effect of revealing failures and the effect of extra biographical information. We did not expect any differences between the “only successes revealed” and the “success and extra information” conditions.

Dependent measure. To measure malicious envy, we test the effect of revealing failures on episodic envy (Cohen-Charash, 2009), a construct that captures the traditional definition of envy as a hostile, malicious emotion (Smith & Kim, 2007). This construct consists of two components, a comparison component and a feeling component. The comparison component includes the cognitive appraisals of wanting what the other person has, lacking what the other person has, and thinking that the other person is better off than oneself (Cohen-Charash, 2009). The feeling component measures the hostile feelings directed toward the other person.

We measured malicious envy using nine items adapted from Cohen-Charash's (2009) measure of episodic envy (see Appendix). Previous research has shown that people often do not admit feeling envious (even when they do) because malicious envy is considered socially taboo and undesirable (Feather & Nairn, 2005; Silver & Sabini, 1978; Vecchio, 2000). Previous research suggests that using a malicious envy measure that asks participants to indicate how they think *other* people feel more accurately captures their own feelings of malicious envy (Cohen-Charash, Larson, & Fischer, 2013). Thus, to avoid floor effects and ensure variance, we measured how participants anticipated the malicious envy felt by others. This measure included items such as “Other people would wish that this person hadn't been successful” and “Other people would wish that this person would fail at something.” Response categories ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Our measure yielded a Cronbach's alpha of .89. A factor analysis showed a two-factor loading, consistent with prior usage of the measure (e.g., Cohen-Charash, 2009).

Results

We included 264 participants (159 male, 105 female) in our analyses. We excluded six participants who did not meet the age requirement, 24 participants with duplicate IP addresses, three participants with duplicate Mechanical Turk ID numbers, and four participants who did not believe the biography was real (exclusion criteria were decided a priori). The final analyses included 92 participants in the “only successes revealed” condition, 87 participants in the “successes and failures revealed” condition, and 85 participants in the “successes and extra information” condition. The average age of participants was 23.97 years old ($SD = 1.94$). There were no significant differences in the results based on age group or gender, so we present the following results collapsed across age group and gender.

A one-way analysis of variance (ANOVA) showed a main effect of experimental condition on envy, $F(2, 261) = 9.78, p < .001, \eta^2 = .07$. We then conducted a priori planned comparisons. As expected, participants in the “successes and failures revealed” condition reported lower feelings of envy ($M = 3.43, SD = 1.00$) than did participants in the “only successes revealed” condition

($M = 4.10, SD = 1.01, t(177) = 4.12, p < .001, d = -.62$ (95% confidence interval [CI] $[-.92, -.32]$). As we also predicted, participants in the “successes and extra information” condition did not report significantly different feelings of envy ($M = 4.04, SD = 1.16, t(175) = 0.31, p = .757, d = -.04$ (95% CI $[-.34, .25]$) than did participants in the “only successes revealed” condition. We depict these results in Figure 1.

Using the *lsmeans* package in R, as a secondary analysis, we also conducted a contrast analysis. One contrast compares the “successes and failures” condition simultaneously to the “only successes revealed” condition and the “successes and extra information” condition—that is, it compares the mean of the “successes and failures” condition to the mean of the other two. Consistent with our prediction, we found a significant effect of the “successes and failures” condition, $\beta = -.64, t(261) = 4.40, p < .001$.

Because the episodic envy measure has two components, we also analyzed the two components as secondary analyses. We found that revealing failures decreases both the “feeling” component, $t(177) = 2.92, p = .004, d = -.44$, 95% CI $[-.74, -.14]$, and the “comparison” component, $t(177) = 3.82, p < .001, d = -.57$, 95% CI $[-.87, -.27]$. Therefore, we find suggestive evidence that the effect of revealing failures decreases both components of the scale.

Discussion

The results from Study 1 suggest that revealing failures—when paired with the disclosure of personal successes—decreases malicious envy toward the high achiever, thereby supporting our primary hypothesis.² Furthermore, our evidence suggests that it is the disclosure of personal failures—not just the broad disclosure of neutral personal information—that decreases malicious envy felt toward the discloser.

One limitation of this study is that we measured malicious envy from the third-person perspective, due to concerns about social desirability (i.e., people do not like to admit when they feel envious themselves), and to ensure variance and avoid floor effects. Therefore, it is possible that our measure of envy, although intended to measure the envy the participants felt themselves, actually captured the participants' best guesses about how much other people would feel malicious envy toward the target. A further limitation is that while we found suggestive evidence that revealing failures decreases both components of the episodic envy measure, this measure may not capture the distinct motivational and behavioral components of malicious envy. We address these limitations directly in Study 2 and in a separate pilot test (see Pilot Study 2 posted on Open Source Framework [OSF]).

Study 2A: Disentangling Envy and Perceptions of Success

We conducted Study 2A for several reasons. First, this study serves as a high-power replication test of the main effect we found

² We ran an additional study (Study 1B) with more extended biographies (of successes and failures) developed from participant responses in Study 1 and replicated the main finding that revealing failures decreases malicious envy. The full materials, data, and analyses of this study are available on OSF.

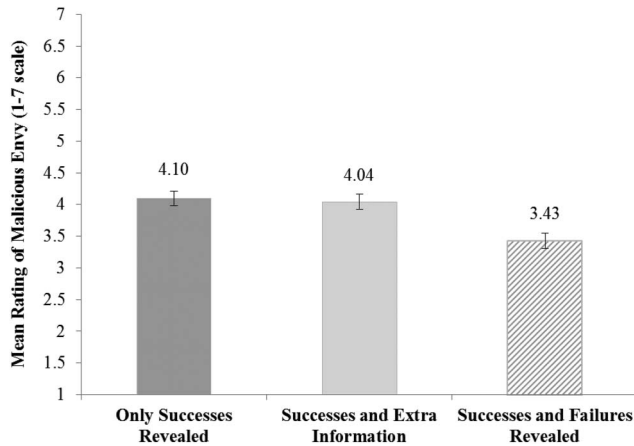


Figure 1. Revealing failures mitigates malicious envy (Study 1). Error bars represent standard error.

in Study 1 (that revealing failures decreases malicious envy), using a self-report measure of malicious envy as opposed to the other-report measure used in Study 1. Second, we measured malicious envy with items that focus on the target's accomplishments, rather than on the person in general. Third, we test a potential explanation of the main effect: that revealing failures decreases malicious envy because revealing failures decreases perceptions of status.³

It is possible that revealing failures leads to the perception that the target's accomplishments are less successful overall, and perceived overall success is a key determinant of perceived status (Anderson, Kraus, Galinsky, & Keltner, 2012; Bitterly, Brooks, & Schweitzer, 2017; Fiske, 2011; Gibson, Harari, & Marr, 2018; Kilduff & Galinsky, 2013; Magee & Galinsky, 2008). Because perceived success is a necessary condition for malicious envy to occur, a decrease in perceived status may drive the decrease in malicious envy found in Study 1.

To consider this explanation, in Study 2A, we orthogonally manipulate the success of the focal individual (highly successful vs. moderately successful) as well as their failure disclosure (reveals only successes vs. reveals successes and failures). We measure perceptions of their success and feelings of malicious envy from the observer's perspective. We predicted a main effect of revealing failures on malicious envy, a main effect of status condition on perceptions of success, and no effect of revealing failures on perceptions of success.

Method

Participants. We recruited 691 participants on Amazon's Mechanical Turk to participate in a study in exchange for \$0.60 (all participants were U.S. residents). We determined the sample size to target 150 participants per condition, which we considered an adequate sample size to detect an effect.

Design and procedure. We randomly assigned participants to one of four conditions in a 2 (status: highly successful vs. moderately successful) \times 2 (failure disclosure: only successes revealed vs. successes and failures revealed) between-subjects design. The main dependent measures were malicious envy felt toward the individual, and perceptions of success of the individual.

Participants agreed to participate in a study related to career trajectories and career advice. In this study, we gave participants information about a fictional individual who had agreed to share a journal entry from earlier in his career in hopes that sharing his story might help others in their careers.

In the successes-and-failures-revealed condition, the individual revealed successes as well as difficulties he had encountered (indicating he had struggled, received extensive criticism, and was worried he would be fired). In the only successes-revealed condition, the individual revealed the same successes, without information about his failures. In the moderately successful status condition, the author identified himself as the manager of a local small business; in the highly successful status condition, the author identified himself as the CEO of a Fortune 500 company. The full materials are included in the Appendix.

Dependent measures. We measured malicious envy using a five-item scale adapted from Lange and Crusius (2015), which captures the distinct motivational tendencies of malicious envy. This measure aligns with prior measures used to capture malicious envy (van de Ven et al., 2009, 2012).

Because malicious envy is a taboo emotion, we wanted to avoid floor effects and ensure variance. As such, we also measured malicious envy from another person's perspective, this measure included items such as "Other people would wish that this person hadn't been successful" and "Other people would wish that this person would fail at something" (see the Appendix; Cronbach's alpha = .91).

We also measured participants' perceptions of success of the target. This served two purposes: first, as a manipulation check of our highly successful and moderately successful manipulations, and second to test the explanation that perceived status might drive the effect of revealing failures on malicious envy. We used a four-item scale of perceived success (adapted from Anderson et al., 2012; Kilduff & Galinsky, 2013), including items such as "the person who wrote this is very successful now" and "the person who wrote this is a high performer" (see the Appendix, Cronbach's alpha = .83).

Results

We included 688 (397 male, 291 female) participants in our analyses. We excluded three participants with duplicate IP addresses (exclusion criteria were determined a priori). The average age was 34.34 years ($SD = 10.21$). There were no significant differences in the results based on gender or age, thus we present the following analyses collapsed across gender and age.

Perceived success. As expected, a two-way ANOVA revealed that participants rated the highly successful individual as more successful ($M = 5.83$, $SD = 1.01$) than the moderately successful individual ($M = 5.36$, $SD = 1.17$), $t(687) = 5.59$, $p < .001$, thus serving as a successful check of our manipulation. There was no significant difference between revealing both failures and successes ($M = 5.64$, $SD = 1.12$) and revealing successes only ($M = 5.55$, $SD = 1.11$) on perceptions of success ($p = .32$) and no

³ We also ran a study (Study 2C) where we manipulated failure disclosure and the ambiguity of success of the focal individual. The data, analyses, and materials are available on OSF.

interaction effect between status condition and failure revelation condition on perceptions of success ($p = .12$).

Malicious envy. As expected, a two-way ANOVA revealed a main effect of revealing failures on malicious envy. Participants reported less malicious envy when the focal person revealed both failures and successes ($M = 2.65$, $SD = 1.52$), compared to when the focal person revealed successes only ($M = 3.56$, $SD = 1.73$), $F(1, 685) = 53.96$, $p < .001$.

There was a main effect of status condition on malicious envy, such that participants reported less malicious envy toward the moderately successful individual ($M = 2.95$, $SD = 1.72$), than toward the highly successful individual ($M = 3.30$, $SD = 1.64$), $F(1, 685) = 6.25$, $p = .0127$. This main effect makes sense: perceptions of success are a necessary condition for malicious envy to occur at all.

Importantly, the effect of failure revelation holds controlling for status condition and controlling for the interaction term. There was no detectable interaction effect, $F(1, 685) = 0.145$, $p = .70$. We depict these results in Figure 2.

Discussion

In this study, we manipulated status as an individual difference (highly successful working adult vs. moderately successful working adult) and manipulated failure revelation (revealing only successes vs. revealing successes and failures). We predicted—and found—that revealing failures decreases malicious envy, regardless of status. Though we successfully manipulated the success of the focal individual, we found no detectable effect of failure revelation on perceptions of success. Thus, it appears that the effect of revealing failures on malicious envy is not driven by a decrease in perceived status. We pursue this explanation from a different but related angle—by testing observers' admiration and their perceived value of the target's accomplishments—in Study 2B.

Study 2B: Disentangling Envy and Admiration

In Study 2B, we investigate the effects of revealing failures on envy, admiration, and perceived value of accomplishments. As

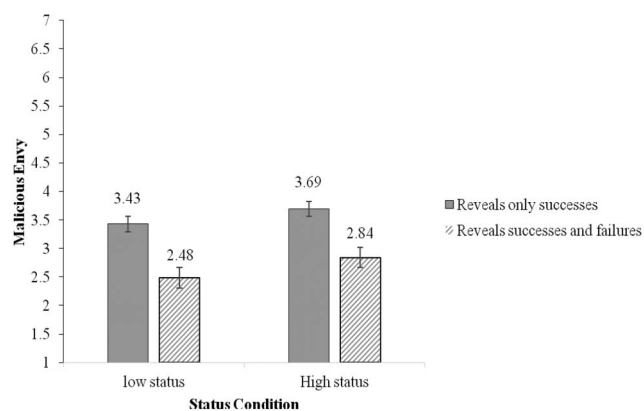


Figure 2. Revealing failures mitigates malicious envy for highly successful and moderately successful individuals (Study 2A). Error bars represent standard error.

discussed in Study 2A, a potential explanation for the effect of revealing failures on malicious envy is that revealing failures decreases perceived status of the successful other. Because admiration is a main component of status (Fast et al., 2012; Fiske, 2010; Gruenfeld & Tiedens, 2010; Magee & Galinsky, 2008), in this study we investigate whether revealing failures decreases observers' admiration (in addition to decreasing envy). Admiration is a positive, "other-praising" emotion (Algoe & Haidt, 2009, p. 105) that, like malicious envy, is triggered by upward social comparison (Cuddy, Norton, & Fiske, 2005; Smith, 2000; van de Ven, Zeelenberg, & Pieters, 2011b).

Method

Participants. We recruited a sample of 412 participants between ages 24 to 28, from Amazon's Mechanical Turk in exchange for \$3.00 per participant. All participants were U.S. residents. We determined the sample size to target at least 150 per condition, as in prior studies.

Design and procedure. Participants read the biography of a successful individual of the same peer group and professional field (the same biographies used in Pilot Study 2 and Study 1B). We assigned participants to one of two between-subjects conditions. In the "only successes revealed" condition, participants read about only an individual's successes. In the "successes and failures revealed" condition, participants read about the same successes, along with several failures the individual experienced in the past.

Dependent measures. We measured participants' malicious envy toward the individual (using the same measure as in Study 1; Cronbach's alpha = .86). We measured admiration using a five-item measure (Cronbach's alpha = .90), which included items such as "I admire this person," "This person's accomplishments are admirable," and "This person is an excellent role model" (Algoe & Haidt, 2009; Lockwood & Kunda, 1997). Finally, we measured the perceived value of the achiever's accomplishments, using a four-item measure adapted from the perceived value measure used in Buell and Norton (2011). This measure included items such as "I think this person's achievements are valuable" and "I respect this person's achievements" (all measures included in the Appendix).

Results

We included 352 participants (171 male, 181 female) in the final analysis, after excluding 24 participants who did not meet the age requirement, 27 participants with duplicate IP addresses, and 9 participants who did not believe the biography was real (exclusion criteria were decided a priori). The average age was 26.04 years ($SD = 1.44$).

A two-sample t test showed that participants in the "successes and failures revealed" condition reported lower feelings of malicious envy ($M = 4.11$, $SD = .97$) than did participants in the "only successes revealed" condition ($M = 4.43$, $SD = .95$), $t(350) = 3.13$, $p = .002$, $d = .33$ (95% CI [.12, .54]). These results replicate the findings from Studies 1–2A.

A two-sample t test did not detect any significant differences in admiration between the "only successes revealed" condition ($M = 5.24$, $SD = 1.07$) and the "successes and failures revealed" condition ($M = 5.05$, $SD = 1.10$), $t(350) = 1.64$, $p = .102$, $d = .17$

(95% CI [-.04, .38]). A two-sample *t* test also did not detect any differences in perceived value of accomplishments between the “only successes revealed” condition ($M = 5.84, SD = .93$) and the “successes and failures revealed” condition ($M = 5.75, SD = .95$), $t(350) = .85, p = .397, d = .09$ (95% CI [-.12, .30]).

Discussion

Our findings from this study suggest that revealing failures and successes, compared to revealing successes only, mitigates malicious envy, but does not influence admiration for the discloser or perceived value of the discloser’s accomplishments. Indeed, admiration for the discloser remained high across both experimental conditions. These results supplement and extend the findings from Study 2A: The main effect of revealing failures on malicious envy does not seem driven by a decrease in the perceived status of the discloser nor by decreased admiration of his or her accomplishments.

Study 3: Revealing Failures in the Field

In Study 3, our primary motivation was to investigate the effect of revealing failures on malicious envy in a field setting. We conducted a field experiment at an entrepreneurial pitch competition. Entrepreneurial pitch competitions are important events where entrepreneurs are not only vying for critical startup funding (e.g., Brooks, Huang, Kearney, & Murray, 2014), but are also seeking visibility for their ideas and trying to gain support and endorsement from potential partners, mentors, and advisors. In this way, pitch competitions represent an important opportunity for entrepreneurs to showcase their success to the several hundred (or thousand) people who may attend the competition, including competitors, supporters, neutral observers, and judges. Many successful startups, including the likes of AirBnB and Dropbox, for example, have expressed how important of a role pitch competitions played in their ability to obtain valuable contacts, partnerships, resources, and capital (Huang & Knight, 2017), which in turn led to their ultimate viability.

Entrepreneurs aim to communicate their early successes and achievements to gain the respect of peers and the interest of early stage investors who can provide them with funding. Thus, because of the nature of these pitch competitions, fellow competitors are highly likely to respond with envy (Lange & Crusius, 2015; Smith & Kim, 2007), providing an important and salient context in which to examine the effects of revealing failures on malicious envy.

Another motivation for Study 3 was to investigate another possible mechanism for the effect of revealing failures on malicious envy, as Studies 2A–2B suggest the effect is not driven by decreased perceptions of the revealer’s status or success. Instead, in Study 3, in addition to malicious envy, we test the effect of revealing failures on benign envy and two facets of pride.

According to the social-functional roles of envy and pride (Lange & Crusius, 2015), when a successful individual displays hubristic pride, observers experience malicious envy, aimed at harming the envied person. In contrast, when the successful individual displays authentic pride, observers experience benign envy, aimed at improving oneself (Crusius & Lange, 2014; van de Ven et al., 2011b). Benign envy leads to effortful behavior aimed at moving up to the same status as the envied other (Crusius & Mussweiler, 2012; van de Ven et al., 2011a).

Does revealing failures decrease perceived hubristic pride and increase perceived authentic pride? Observers perceive authentic pride (i.e., confidence) when they attribute success to internal and controllable factors like effort, and perceive hubristic pride (i.e., arrogance) when they attribute success to internal and uncontrollable factors like talent (Tracy & Prehn, 2012; Tracy & Robins, 2007). We propose that when an envied person reveals failures, observers attribute that person’s success to effort rather than talent, leading observers to perceive more authentic pride and less hubristic pride. The entrepreneurial pitch competition is an ideal environment to investigate this possible mechanism, since superior competitors, such as successful entrepreneurs, are highly likely to display pride in order to emotionally communicate high status (Lange & Crusius, 2015; Tracy & Matsumoto, 2008).

Method

Participants. We recruited 86⁴ entrepreneurs competing in a pitch competition held in the United States. The competition was conducted over the course of three days, during which entrepreneurs who had founded their own startup ventures gave a 2-min pitch presentation (i.e., a “fast pitch”) to a panel of early stage investors. Investors include prominent angel investors⁵ and venture capitalists. These investors judged the entrepreneurs and awarded investment money to the winners based on their pitches. Participants were in the same field (i.e., high-tech entrepreneurship), vying for the same resource (i.e., seed capital), and were similar in age. Participants were therefore likely to consider a fellow entrepreneur’s success to be highly self-relevant, in turn fostering envy and creating an ideal environment to test the effects of revealing failures on envy.

Design and procedure. After each entrepreneur had pitched their company, but before any results were announced, we asked each entrepreneur to listen to what they believed to be an audio recording of a fellow competitor’s pitch. Entrepreneurs were told that the pitch was randomly selected from one of the other presentations in the competition, and that they would be providing an evaluation of the entrepreneur giving the pitch. The recording featured a real startup venture that was similar in terms of developmental stage, industry focus, and scope to the other startups in the competition, but it was not a startup that had actually entered the competition. A female research assistant who was blind to our hypotheses voiced the recording. We used a recording, rather than a video, to eliminate confounding variables such as physical attractiveness and posture, which are known to influence entrepreneurial persuasiveness (e.g., Brooks et al., 2014).

⁴ Pitch competitions and pitch events are rarely larger than 50 or 60 participants because of the time commitments required of the active, experienced angel investors who serve as judges, as well as the logistical limitations in managing and coordinating such an event. We sampled from a particularly high-profile pitch event to have access to such a relatively large number of entrepreneurs—yet we acknowledge that because of the realities of field studies, this sample of entrepreneurs ($n = 86$) is smaller than our sample sizes in Studies 1 and 2.

⁵ Angel investors are high net worth individuals who invest their personal money into early-stage startups in exchange for equity. To qualify as an accredited individual investor, one must have a net worth (or joint worth with spouse) of at least one million US dollars, excluding the value of one’s primary residence, or have annual income of at least \$200,000 (\$300,000 combined income if married) in each of the two most recent years.

In our between-subjects design, we randomly assigned participants to one of two conditions: “only successes revealed” or “successes and failures revealed.” The participants listened to one of two versions of pitches depending on their condition: (a) the entrepreneur revealing successes only, or (b) the entrepreneur revealing both successes and failures. For example, in the successes only version, the entrepreneur stated: “I have already landed some huge clients—companies like Google and GE. I’ve had amazing success, and in the past year I have single-handedly increased our market share by two-hundred percent,” while in the successes and failures version, the entrepreneur goes on to say: “I wasn’t always so successful. I had a lot of trouble getting to where I am now . . . when I started my company. . . . I also failed to demonstrate why potential clients should believe in me and our mission. Many potential clients turned me down” (see the Appendix for full stimuli).

To hold audible features of the pitch that were unrelated to our experimental manipulation constant, the “only successes revealed” condition was a digitally edited version of the “successes and failures revealed” condition. That is, the recorded pitches for the two conditions were identical in every aspect, except that the revelation of failures was digitally removed from the “only successes revealed” stimuli. After listening to the pitch, entrepreneurs evaluated their competitor by answering a series of questions, and provided demographic information including their own age and gender.

Dependent measures. Participants reported benign envy, malicious envy, perceived hubristic pride, and perceived authentic pride, in that order. The measures were not counterbalanced because they were administered in paper form during the entrepreneurial pitch competition. Because the main purpose of this study was to test the hypotheses in a field setting, there was an order dependence of the measures that prioritized a main effect.

Malicious envy. In this study, to investigate the nuanced effects of revealing failures, we specifically measured the motivational and behavioral components that distinguish malicious and benign envy, such as either wishing to harm the other person or wishing to improve oneself. We used measures developed by Lange and Crusius (2015) that capture these distinct motivational tendencies, which align with measures used in previous research on malicious and benign envy (van de Ven et al., 2009, 2012).

We used the same measure of malicious envy as in Study 2A, based on a five-item scale adapted from Lange and Crusius (2015), again using items from the third-person perspective to avoid floor effects and ensure variance. This measure included items such as, “Other competitors in the pitch competition would say that they wished this entrepreneur failed at something” and “Other competitors in the pitch competition would not want this entrepreneur to win the pitch competition” (see the Appendix; Cronbach’s $\alpha = .80$).

Benign envy. We measured benign envy using five items adapted from Lange and Crusius (2015). Using a scale from 1 (*not at all*) to 7 (*very much*), we asked participants to reflect on the entrepreneur in the recording and indicate their responses for the following items: “This entrepreneur inspires me to work harder to get startup capital,” “I will try harder to obtain funding for my startup at the next opportunity,” “I want to be like this entrepreneur,” “This entrepreneur’s success encourages me,” and “This

entrepreneur motivates me to emulate him/her” (see the Appendix; Cronbach’s $\alpha = .90$).

Perceived authentic and hubristic pride. We used measures of authentic and hubristic pride that have been validated by previous research (Lange & Crusius, 2015; Tracy & Prehn, 2012; Tracy & Robins, 2007). We measured hubristic pride by asking entrepreneurs to indicate on a 1–7 scale how strongly their competitor appeared to feel “conceited,” “arrogant,” “stuck-up,” “pompous,” “snobbish,” “egotistical,” and “smug” (see the Appendix; Cronbach’s $\alpha = .97$).

We measured authentic pride by asking entrepreneurs to indicate on a 1–7 scale how strongly their competitor appeared to feel “like he or she is achieving,” “fulfilled,” “accomplished,” “productive,” “like he or she has self-worth,” “successful,” and “confident” (see the Appendix; Cronbach’s $\alpha = .90$).

Results

Participants. We included 82 participants (51 male, 31 female) in our analyses. We excluded four entrepreneurs who failed to complete the survey (exclusion criteria were decided a priori). Final analyses included 37 participants in the “only successes revealed” condition and 45 participants in the “successes and failures revealed” condition. Participants were 28.04 years old on average ($SD = 3.81$). There were no significant gender effects, and we present the following analyses collapsed across gender.

Malicious envy. A two-sample t test replicated the findings from Studies 1–2B, showing an effect of failure disclosure on malicious envy. Consistent with our expectation, participants in the “successes and failures revealed” condition reported lower feelings of malicious envy ($M = 3.86$, $SD = .91$) than did participants in the “only successes revealed” condition ($M = 5.61$, $SD = .90$), $t(80) = 8.70$, $p < .001$, $d = -1.93$ (95% CI $[-2.46, -1.40]$). We depict the results in Figure 3.

Benign envy. A two-sample t test showed a main effect of failure disclosure on benign envy. As expected, participants in the “successes and failures revealed” condition reported higher feelings of benign envy ($M = 4.98$, $SD = 1.14$) than did participants

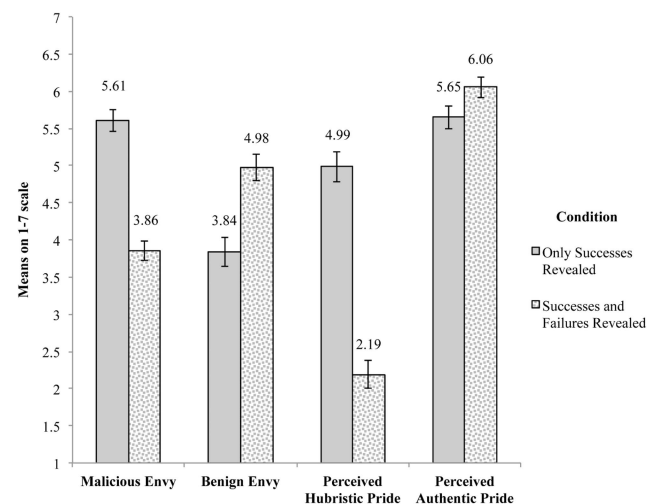


Figure 3. Revealing failures on envy and perceptions of pride (Study 3). Error bars represent standard error.

in the “only successes revealed” condition ($M = 3.84$, $SD = 1.27$), $t(80) = 4.27$, $p < .001$, $d = .94$ (95% CI [.47, 1.40]). We depict the results in Figure 3.

Perceived authentic and hubristic pride. Consistent with our prediction, a two-sample t test showed that participants in the “successes and failures revealed” condition perceived less hubristic pride ($M = 2.19$, $SD = 1.09$) than did participants in the “only successes revealed” condition ($M = 4.99$, $SD = 1.42$), $t(80) = 10.09$, $p < .001$, $d = -2.18$ (95% CI [-2.74, -1.62]). Following the effects of failure revelation on admiration in Study 2B, we found that participants in the “successes and failures revealed” condition perceived marginally more authentic pride ($M = 6.06$, $SD = .67$) than did participants in the “only successes revealed” condition ($M = 5.65$, $SD = 1.20$), $t(80) = 1.92$, $p = .058$, $d = .41$ (95% CI [-.04, .85]). We depict the results in Figure 3.

Mediation. We examined perceptions of authentic pride and perceptions of hubristic pride as two potential mediators. First, we tested the causal links between perceived pride and envy by running two linear regressions. Consistent with our expectation, perceived hubristic pride significantly predicted malicious envy, $\beta = .36$, $t(80) = 5.62$, $p < .001$. Furthermore, perceived authentic pride was a marginally significant predictor of benign envy, $\beta = .27$, $t(80) = 1.82$, $p = .073$. These findings replicate previous work showing the sociofunctional relation between envy and pride (Lange & Crusius, 2015).

Next, we tested two mediation models. We report both the indirect effect and the proportion mediated (Preacher & Hayes, 2008; Preacher & Kelley, 2011). We fit a mediation model with benign envy as the dependent variable, experimental condition as the treatment variable, and perceived authentic pride as the mediator variable. We tested for and bootstrapped the indirect effect over 10,000 simulations and did not find evidence of mediation (indirect effect = .06, 95% CI [-.06, .24]). The model with proportion mediated (which is the indirect effect over the total effect) also did not reach significance (proportion mediated = .05, 95% CI [-.05, .20]).

We then fit a mediation model with malicious envy as the dependent variable, experimental condition as the treatment variable, and perceived hubristic pride as the mediator variable. We tested for and bootstrapped the indirect effect over 10,000 simulations and did not find evidence for mediation (indirect effect = -.04, 95% CI [-.50, .34]). The model with proportion mediated also did not reach significance (proportion mediated = .02, 95% CI [-.28, .22]).

Discussion

The findings from Study 3 make several important contributions. First, we found additional evidence that revealing failures that occurred along the path to success decreases malicious envy, thus replicating the findings from Studies 1–2B.

Second, we find evidence that revealing failures increases benign envy. When participants listened to a pitch from an entrepreneur about her successes and the failures that occurred along the way to success, we found that fellow entrepreneurs were motivated to work harder to improve their own ventures. However, given the limited sample size, we present this as suggestive evidence that revealing failures and successes modulates envy from its malicious to its benign form. In these stimuli, the successful entrepreneur

also expressed effort in overcoming the failures revealed. Thus, revealing failures is confounded with revealing effort, whereas in Studies 1–2B, we only manipulated revealing failures. In real life, revealing failures and effort tend to occur together. When successful people reveal their failures, they often imply that they worked hard and exerted effort to overcome those failures to ultimately achieve success.

Third, we investigated a possible psychological mechanism underlying these effects. We found that revealing successes and failures (compared to only successes) decreased perceptions of hubristic pride. Revealing successes and failures (compared to only successes) marginally increased perceptions of authentic pride. Furthermore, we show that perceived hubristic pride predicts malicious envy, and perceived authentic pride marginally predicts benign envy. These results are consistent with the findings by Lange and Crusius (2015) that when a successful person displays hubristic pride, observers are more likely to experience malicious envy, and when a successful person displays authentic pride, observers are more likely to experience benign envy.

Although we found no significant mediation effects, our findings align with the sociofunctional account of envy and pride (Lange & Crusius, 2015): Envy and pride often co-occur and displays of hubristic and authentic pride modulate envy to its malicious and benign forms. Again, because of the limitation in the sample size in this study, we present this as suggestive evidence for the mechanism.

Finally, the results from Study 3 demonstrate the real-world implications of our findings. Prior research has shown that entrepreneurs believe that demonstrating success in their venture ideas will impact investor decision making and reduce investors' perceptions of risk and uncertainty (Kirzner, 1999; McGee, Peterson, Mueller, & Sequeira, 2009). Our research shows the benefits of revealing both successes and failures in a context where others' perceptions highly influence peer support and startup funding. During these competitions, when a successful entrepreneur reveals past failures, fellow entrepreneurs feel less malicious envy. Rather, they likely feel inspired to work harder themselves.

General Discussion

People experience envy as a negative emotional reaction to upward social comparison (Cohen-Charash, 2009). Although malicious envy often leads to harmful outcomes targeted at successful others, our findings suggest a simple strategy that can regulate malicious envy: revealing the failures one has encountered on the path to success. In a series of four studies, we found that revealing successes and failures decreases malicious envy across three online experiments (Studies 1, 2A, and 2B) and one field experiment (Study 3). Furthermore, we provide evidence that this effect is not explained by a decrease in perceived status (Studies 2A–B). Rather, we find suggestive evidence that revealing failures decreases perceptions of hubristic pride and increases perceptions of authentic pride, modulating malicious envy to benign envy (Study 3). Taken together, we contribute an effective and counterintuitive strategy for regulating malicious envy: revealing failures.

Theoretical Contributions

Our findings make several important theoretical contributions. First, to our knowledge, previous research has not identified strat-

egies that can help people interpersonally regulate targeted envy (Salovey & Rodin, 1988; Smith & Kim, 2007). Although previous work in emotion regulation has mostly focused on intrapsychic strategies, such as cognitive reappraisal to regulate negative emotions like anxiety and anger (e.g., Brooks, 2014; Gross, 1998; Hofmann et al., 2009; Mauss et al., 2007), our work departs from previous emotion regulation research to identify an interpersonal strategy to regulate envy: revealing failures. We contribute to the budding domain of interpersonal emotion regulation, showing that by revealing failures, a high achiever can exert control over observers' feelings of envy.

Second, we have identified an example of how negative disclosure can lead to positive consequences. Learning about a successful person's failures mitigates hostile intentions and could possibly augment motivation to improve one's own performance. When observers realize that they are not the only ones who endure negative emotional experiences (Jordan et al., 2011), they develop a more accurate view of other people's lives. They learn from other people's failures (Diwas, Staats, & Gino, 2013), and feel more motivated to emulate their effort and performance (Lockwood & Kunda, 1997). For example, our findings align with previous work showing that when students learned about the past struggles of highly successful scientists, they felt more motivated to learn, and improved their performance in science classes (Lin-Siegler, Ahn, Chen, Fang, & Luna-Lucero, 2016). We have identified a set of circumstances under which revealing failures could diminish negative affect directed toward the high achiever while possibly also motivating observers to work harder to improve themselves.

Third, we develop a dual-perspective model of envy regulation by considering the perspectives of both the envied target and the envious observer. The emerging research domain of interpersonal emotion regulation calls for research that takes into account the interplay between the target and observer (Neisser, 1980; Zaki & Williams, 2013). We draw from the social-functional approaches to emotion (Fischer & Manstead, 2008; Fischer & Van Kleef, 2010; Frijda, 1986; Keltner & Haidt, 1999), and specifically the social-functional relation between envy and pride (Lange & Crusius, 2015). For the envied, we show that the information they reveal about themselves can influence the type of pride people perceive and the type of envy felt toward them. For the envious, our findings highlight when people feel envious (when they compare themselves to the successes displayed by others), and how malicious envy can shift to benign envy.

Practical Implications

Competitive interactions in organizational settings often give rise to displays of success, which fuel observer envy. For example, entrepreneurial pitch competitions help to secure critical startup funding (Stinchcombe, 1965) and present the opportunity for entrepreneurs to showcase their success to the several hundred people who attend each competition. Entrepreneurs are likely to reveal only successes, since they perceive that peers and investors care only about the potential success of investment. When superior competitors display their successes, fellow competitors are likely to feel envious (Lange & Crusius, 2015; Tracy & Matsumoto, 2008). In Study 3, a field experiment set in an entrepreneurial pitch competition, we find that when a successful entrepreneur reveals failures, other entrepreneurs feel less malicious envy and, impor-

tantly, feel motivated to better themselves. In competitive contexts where peer perceptions influence outcomes, revealing both successes and failures will likely increase the benign envy of peers. Although peers' success may improve, thus increasing the overall competition for funding, from a longer-term perspective, positive esteem among entrepreneurs in a venture community can be mutually advantageous in terms of marshaling resources, talent, and guidance. That is, mitigating malicious envy and boosting benign envy among entrepreneurs may have long-term benefits, even if it results in more competition in the short term.

Managing envy is important not only in entrepreneurial competitions but also in the workplace more broadly. Malicious envy diminishes organizational productivity (Bedeian, 1995), reduces cooperative behavior (Parks et al., 2002), and decreases group cohesion and effectiveness (Duffy & Shaw, 2000). Our results suggest several implications for managing workplace envy.

Managers, especially those recently promoted, may be the particular targets of envy (Menon & Thompson, 2010; Schaubroeck & Lam, 2004). For example, when MBA graduates from top schools enter companies and move quickly through fast-track promotion programs, existing company employees who are more experienced are likely to feel malicious envy. In cases like these, the revelation of failures could reduce malicious envy, increase benign envy, and promote perceptions of confidence and credibility. To the extent that envy arises as a response to competition for scarce resources, celebrating one's tenacity en route to success (i.e., describing one's failures as well as one's successes) in announcing promotions, grants, or access could decrease internal competition among colleagues (Dogan & Vecchio, 2001), while motivating intrapersonal striving (Crusius & Lange, 2014; Crusius & Mussweiler, 2012; van de Ven et al., 2011b).

Relatedly, our results have implications for recruitment. Candidates who candidly discuss their failures (as well as their successes) may be better at achieving followership among their peers, who may feel less malicious envy toward them, but respect them equally. In job interviews, recruiters commonly ask, "What is your greatest failure?" or "Describe your greatest weakness." Revealing genuine failures, as opposed to framing a success as a failure or a strength as a weakness (e.g., "I'm a perfectionist," or "I work too hard") may be taken as a signal of a higher-quality candidate, one who can mitigate malicious envy and may be able to develop more productive relationships with colleagues and subordinates.

To the extent that malicious envy diminishes one's ability to consider or to act upon the ideas of an envied other, revealing failures as a team-building exercise could be used to improve within-group communication and collaboration (Menon, Thompson, & Choi, 2006). In team settings, team-building exercises celebrate the successes of others, but perhaps strategies that "humanize" members of the team—through the revelation of failures—could reduce malicious envy, facilitating better communication, sharing, and other collaborative behaviors. Indeed, learning from the envied other is one mechanism that explains how envy improves workplace performance (Lee & Duffy, 2014). In organizational settings, failures are learning opportunities that create the conditions for psychological safety and increased team performance (Edmondson, 1999).

Limitations and Future Directions

Our research is qualified by several limitations that suggest avenues for future research. First, our results suggest that the effect of revealing failures on malicious envy is likely multiply determined by more than one mechanism. We find suggestive evidence for a mechanism related to authentic versus hubristic pride and rule out a mechanism related to admiration and perceptions of status, however further research is needed. For example, observers may make different attributions about the target due to the target's intention to reveal. One way to investigate this possible mechanism is to manipulate whether a third party discloses the target's failure (rather than the target herself). If revealing one's own failures decreases malicious envy, whereas having another person reveal them does not, then the target's intention to reveal may be an important mechanism.

Furthermore, revealing failures along with successes may also increase the perception of appreciative humility, which is associated with authentic pride (Weidman, Cheng, & Tracy, 2018), and thus may increase benign envy. These predictions regarding the social functions of humility extend from prior work showing that appreciative humility likely encourages the celebration of others' accomplishments (Weidman et al., 2018). This potential mechanism—the effect of revealing failures on perception of humility—merits investigation by future research.

In addition, a successful person revealing failures could increase observers' feelings of *schadenfreude* (i.e., joy at another person's misfortune). The important appraisal that elicits *schadenfreude* is considering that the other person's misfortune benefits oneself (Van Dijk, Ouwerkerk, Smith, & Cikara, 2015). When learning about the successful individual's failure, observers may take the opportunity to mitigate painful feelings of malicious envy, and consequently feel pleased at the successful individual's failures. Thus, revealing failures may both mitigate malicious envy and increase *schadenfreude*. This prediction is consistent with prior research showing that when people initially feel malicious envy toward a person, after that person suffers from a misfortune, they are likely to feel *schadenfreude* (Hoogland et al., 2015; van de Ven et al., 2015).

Importantly, we investigated the revelation of failures that have occurred in the past and in the same domain as the revealed successes. It is likely that the domain of the failure, and whether the failure occurred before or after the success, moderate the effects of revealing failures on malicious envy. For example, research on the "pratfall effect" shows that people perceive highly competent others as more likable if they commit a clumsy pratfall such as spilling a cup of coffee during an interview (Aronson, Willerman, & Floyd, 1966; Helmreich, Aronson, & LeFan, 1970). A pratfall could be considered a failure in a different domain, such as in social skills or physical coordination. In these studies, the accomplished individual commits the pratfall after having displayed her accomplishments. Future research could investigate both the domain of failures and the timing of disclosure as potential moderators of our effects. For example, future research could investigate how disclosing failures in a different domain, such as in one's personal life, could moderate the effects.

Furthermore, the way in which one reveals successes and failures suggests several boundary conditions. Many aspects of delivery are likely to matter, such as written versus spoken disclosure,

and humor (Bitterly, Brooks, & Schweitzer, 2017; Sezer, Gino, & Norton, 2018). Future research could investigate whether revealing failures and successes with self-deprecating humor could moderate the effects on observer envy.

In our studies, we investigated the revelation of failures and successes in initial meetings. Future research could investigate the social closeness between disclosers and their listeners as a moderator of the observed effects. It is possible that people disclose their failures to close others in an attempt to mitigate envy among close friends and colleagues, or we can imagine the opposite hypothesis: people are more likely to disclose failures to distant others because distant others may be less likely to exert power or judgment over them (or even encounter them again in the future). Recent work by sociologist M. Small (2017) draws fascinating connections between social closeness and the nature of personal disclosure. We leave these questions for future research.

Although Study 3 showed the effects of revealing failures in an entrepreneurial setting, there are two important limitations of these findings. First, increasing the benign envy of peers may in turn impact their success in the competition, thus changing the inherent nature of the competitive pitch environment. That is, pitch competitions are highly visible events, where entrepreneurs are not only presenting to investors, but also to an audience of peers. Entrepreneurs may be, to some extent, motivated to express hubristic pride in an effort to manage the impressions of their peers. Because they are in the same domain and relative comparisons are made, entrepreneurs may be attempting to send signals about the relative talent, ability, and commitment that is needed to be successful in entrepreneurship. Such a strategy would be consistent with findings that hubristic pride is associated with dominance (Cheng et al., 2010). Second, entrepreneurs may also be motivated to express hubristic pride because they seek to influence the perceptions of investors, irrespective of their peers. Potential investors will likely only care about the potential success of investment, not about the failures that the entrepreneur experienced.

Across our studies, we used an attitudinal measure of malicious envy. It will be important to investigate behavioral outcomes as well. For instance, decreased malicious envy could reduce undermining behavior toward the envied other, such as gossip, withholding help, or actively decreasing the envied other's income (Dunn & Schweitzer, 2005; Schaubroeck & Lam, 2004; Zizzo & Oswald, 2001). In addition, future research could investigate whether people set higher goals for themselves or increase their own performance when they learn about a successful colleague's failures (e.g., Lin-Siegler et al., 2016).

Conclusion

In sum, people pervasively experience malicious envy in response to successful individuals' displays of success. Envy is especially likely to arise in competitive settings, such as in the workplace and in entrepreneurial pitch competitions, where people publicly highlight their achievements and credentials. Successful individuals often choose to reveal only their successes, hiding their failures from others while they are happening and disclosing them to surprisingly few (if any) people after they have occurred. But revealing the failures encountered on the path to success regulates malicious envy felt by observers. Like Johannes Haushofer, by

publicly acknowledging the failures one worked to overcome, high achievers can mitigate malicious envy.

Context of Research

The idea for this article originated from Alison Wood Brooks's previous work on emotion regulation (Brooks, 2014), in which she found that people can reappraise their feelings of performance anxiety as excitement (e.g., simply by saying "I am excited" out loud). Our research team aimed to investigate whether similar strategies could be deployed to regulate negative interpersonal emotions. We focused on envy because it is a particularly pervasive and destructive interpersonal emotion—one that might logically transform into admiration, a positive emotion that, like envy, is also triggered by upward social comparison. Separately, the idea of revealing failures to others relates to the research team's broader interests in conversational dynamics—we aim to discover strategies to become more effective conversationalists—and to investigate the costs and benefits of personal and organizational transparency.

References

- Algoe, S. B., & Haidt, J. (2009). Witnessing excellence in action: The "other-praising" emotions of elevation, gratitude, and admiration. *The Journal of Positive Psychology, 4*, 105–127. <http://dx.doi.org/10.1080/17439760802650519>
- Anderson, C., Kraus, M. W., Galinsky, A. D., & Keltner, D. (2012). The local-ladder effect: Social status and subjective well-being. *Psychological Science, 23*, 764–771.
- Appel, H., Crusius, J., & Gerlach, A. L. (2015). Social comparison, envy, and depression on Facebook: A study looking at effects of high comparison standards on depressed individuals. *Journal of Social and Clinical Psychology, 34*, 277–289. <http://dx.doi.org/10.1521/jscp.2015.34.4.277>
- Aronson, E., Willerman, B., & Floyd, J. (1966). The effect of a pratfall on increasing interpersonal attractiveness. *Psychonomic Science, 4*, 227–228. <http://dx.doi.org/10.3758/BF03342263>
- Baumeister, R. F. (1982). A self-presentational view of social phenomena. *Psychological Bulletin, 91*, 3–26. <http://dx.doi.org/10.1037/0033-2909.91.1.3>
- Bedeian, A. G. (1995). Workplace envy. *Organizational Dynamics, 23*, 49–56. [http://dx.doi.org/10.1016/0090-2616\(95\)90016-0](http://dx.doi.org/10.1016/0090-2616(95)90016-0)
- Berman, J. Z., Levine, E. E., Barasch, A., & Small, D. (2015). The braggart's dilemma: On the social rewards and penalties of advertising prosocial behavior. *Journal of Marketing Research, 52*, 90–104. <http://dx.doi.org/10.1509/jmr.14.0002>
- Bitterly, B. T., Brooks, A. W., & Schweitzer, M. E. (2017). Risky business: When humor increases and decreases status. *Journal of Personality and Social Psychology, 112*, 431–455. <http://dx.doi.org/10.1037/pspi0000079>
- Bitterly, T. B., Brooks, A. W., & Schweitzer, M. E. (2017). Risky Business: When Humor Increases and Decreases Status. *Journal of Personality and Social Psychology, 112*, 431. <http://dx.doi.org/10.1037/pspi0000079>
- Brooks, A. W. (2014). Get excited: Reappraising pre-performance anxiety as excitement. *Journal of Experimental Psychology: General, 143*, 1144–1158. <http://dx.doi.org/10.1037/a0035325>
- Brooks, A. W., Huang, L., Kearney, S. W., & Murray, F. (2014). Investors prefer entrepreneurial ventures pitched by attractive men. *Proceedings of the National Academy of Sciences of the United States of America, 111*, 4427–4431. <http://dx.doi.org/10.1073/pnas.1321202111>
- Buell, R. W., Kim, T., & Tsay, C. J. (2017). Creating reciprocal value through operational transparency. *Management Science, 63*, 1673–1695. <http://dx.doi.org/10.1287/mnsc.2015.2411>
- Buell, R. W., & Norton, M. I. (2011). The labor illusion: How operational transparency increases perceived value. *Management Science, 57*, 1564–1579. <http://dx.doi.org/10.1287/mnsc.1110.1376>
- Cheng, J. T., Tracy, J. L., & Henrich, J. (2010). Pride, personality, and the evolutionary foundations of human social status. *Evolution and Human Behavior, 31*, 334–347. <http://dx.doi.org/10.1016/j.evolhumbehav.2010.02.004>
- Chou, H. T. G., & Edge, N. (2012). "They are happier and having better lives than I am": The impact of using Facebook on perceptions of others' lives. *Cyberpsychology, Behavior, and Social Networking, 15*, 117–121. <http://dx.doi.org/10.1089/cyber.2011.0324>
- Cialdini, R. B., Borden, R. J., Thorne, A., Walker, M. R., Freeman, S., & Sloan, L. R. (1976). Basking in reflected glory: Three (football) field studies. *Journal of Personality and Social Psychology, 34*, 366–375. <http://dx.doi.org/10.1037/0022-3514.34.3.366>
- Cialdini, R. B., & Richardson, K. D. (1980). Two indirect tactics of image management: Basking and blasting. *Journal of Personality and Social Psychology, 39*, 406–415. <http://dx.doi.org/10.1037/0022-3514.39.3.406>
- Cohen-Charash, Y. (2009). Episodic envy. *Journal of Applied Social Psychology, 39*, 2128–2173. <http://dx.doi.org/10.1111/j.1559-1816.2009.00519.x>
- Cohen-Charash, Y., Larson, E., & Fischer, A. H. (2013). *Envious or angry? Self and other reactions to others getting what we want*. Paper presented at the Annual Meeting of the Academy of Management, Orlando, FL.
- Cohen-Charash, Y., & Mueller, J. S. (2007). Does perceived unfairness exacerbate or mitigate interpersonal counterproductive work behaviors related to envy? *Journal of Applied Psychology, 92*, 666–680. <http://dx.doi.org/10.1037/0021-9010.92.3.666>
- Crowley, A. E., & Hoyer, W. D. (1994). An integrative framework for understanding two-sided persuasion. *Journal of Consumer Research, 20*, 561–574. <http://dx.doi.org/10.1086/209370>
- Crusius, J., & Lange, J. (2014). What catches the envious eye? Attentional biases within malicious and benign envy. *Journal of Experimental Social Psychology, 55*, 1–11. <http://dx.doi.org/10.1016/j.jesp.2014.05.007>
- Crusius, J., & Mussweiler, T. (2012). When people want what others have: The impulsive side of envious desire. *Emotion, 12*, 142–153. <http://dx.doi.org/10.1037/a0023523>
- Cuddy, A. J. C., Norton, M. I., & Fiske, S. T. (2005). This old stereotype: The pervasiveness and persistence of the elderly stereotype. *Journal of Social Issues, 61*, 267–285. <http://dx.doi.org/10.1111/j.1540-4560.2005.00405.x>
- DePaulo, B. M., Kashy, D. A., Kirkendol, S. E., Wyer, M. M., & Epstein, J. A. (1996). Lying in everyday life. *Journal of Personality and Social Psychology, 70*, 979–995. <http://dx.doi.org/10.1037/0022-3514.70.5.979>
- Diwas, K. C., Staats, B. R., & Gino, F. (2013). Learning from my success and from others' failure: Evidence from minimally invasive cardiac surgery. *Management Science, 59*, 2435–2449. <http://dx.doi.org/10.1287/mnsc.2013.1720>
- Dogan, K., & Vecchio, R. P. (2001). Managing envy and jealousy in the workplace. *Compensation and Benefits Review, 33*, 57–64. <http://dx.doi.org/10.1177/08863680122098298>
- Duffy, M. K., & Shaw, J. D. (2000). The Salieri syndrome: Consequences of envy in groups. *Small Group Research, 31*, 3–23. <http://dx.doi.org/10.1177/104649640003100101>
- Duffy, M. K., Shaw, J. D., & Schaubroeck, J. M. (2008). Envy in organizational life. In R. H. Smith (Ed.), *Envy: Theory and research* (pp. 167–189). New York, NY: Oxford University Press. <http://dx.doi.org/10.1093/acprof:oso/9780195327953.003.0010>

- Dunn, J. R., & Schweitzer, M. E. (2005). Feeling and believing: The influence of emotion on trust. *Journal of Personality and Social Psychology, 88*, 736–748. <http://dx.doi.org/10.1037/0022-3514.88.5.736>
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly, 44*, 350–383. <http://dx.doi.org/10.2307/2666999>
- Ein-Gar, D., Shiv, B., & Tormala, Z. L. (2012). When blemishing leads to blossoming: The positive effect of negative information. *Journal of Consumer Research, 38*, 846–859. <http://dx.doi.org/10.1086/660807>
- Exline, J. J., & Lobel, M. (1999). The perils of outperformance: Sensitivity about being the target of a threatening upward comparison. *Psychological Bulletin, 125*, 307–337. <http://dx.doi.org/10.1037/0033-2909.125.3.307>
- Falcon, R. G. (2015). Is envy categorical or dimensional? An empirical investigation using taxometric analysis. *Emotion, 15*, 694–698. <http://dx.doi.org/10.1037/emo0000102>
- Fast, N. J., Halevy, N., & Galinsky, A. D. (2012). The destructive nature of power without status. *Journal of Experimental Social Psychology, 48*, 391–394.
- Feather, N. T. (1969). Attribution of responsibility and valence of success and failure in relation to initial confidence and task performance. *Journal of Personality and Social Psychology, 13*, 129–144. <http://dx.doi.org/10.1037/h0028071>
- Feather, N. T., & Nairn, K. (2005). Resentment, envy, schadenfreude, and sympathy: Effects of own and other's deserved or undeserved status. *Australian Journal of Psychology, 57*, 87–102. <http://dx.doi.org/10.1080/00049530500048672>
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117–140. <http://dx.doi.org/10.1177/001872675400700202>
- Fischer, A. H., & Manstead, A. S. R. (2008). Social functions of emotion. In M. Lewis, J. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (pp. 456–470). New York, NY: Guilford Press.
- Fischer, A. H., & Van Kleef, G. A. (2010). Where have all the people gone? A plea for including social interaction in emotion research. *Emotion Review, 2*, 208–211. <http://dx.doi.org/10.1177/1754073910361980>
- Fiske, S. T. (2010). Envy up, scorn down: How comparison divides us. *American Psychologist, 65*, 698–706. <http://dx.doi.org/10.1037/0003-066x.65.8.698>
- Fiske, S. T. (2011). *Envy up, scorn down: How status divides us*. New York, NY: Russell Sage Foundation.
- Foster, G. M. (1972). The anatomy of envy: A study in symbolic behavior. *Current Anthropology, 13*, 165–202. <http://dx.doi.org/10.1086/201267>
- Frijda, N. H. (1986). *The emotions*. Cambridge, UK: Cambridge University Press.
- Gibson, K. R., Harari, D., & Marr, J. C. (2018). When sharing hurts: How and why self-disclosing weakness undermines the task-oriented relationships of higher status disclosers. *Organizational Behavior and Human Decision Processes, 144*, 25–43. <http://dx.doi.org/10.1016/j.obhdp.2017.09.001>
- Gilbert, D. T., Pinel, E. C., Wilson, E. D., Blumberg, S. J., & Wheatley, T. P. (1998). Immune neglect: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology, 75*, 617–638. <http://dx.doi.org/10.1037/0022-3514.75.3.617>
- Gilmore, D. C., & Ferris, G. R. (1989). The effects of applicant impression management tactics on interviewer judgments. *Journal of Management, 15*, 557–564. <http://dx.doi.org/10.1177/014920638901500405>
- Gino, F., & Pierce, L. (2009). Dishonesty in the name of equity. *Psychological Science, 20*, 1153–1160. <http://dx.doi.org/10.1111/j.1467-9280.2009.02421.x>
- Godfrey, D. K., Jones, E. E., & Lord, C. G. (1986). Self-promotion is not ingratiating. *Journal of Personality and Social Psychology, 50*, 106–115. <http://dx.doi.org/10.1037/0022-3514.50.1.106>
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*, 271–299. <http://dx.doi.org/10.1037/1089-2680.2.3.271>
- Gruenfeld, D. H., & Tiedens, L. Z. (2010). Organizational preferences and their consequences. *Handbook of social psychology*. Advance online publication. <http://dx.doi.org/10.1002/9780470561119.socpsy002033>
- Helmreich, R., Aronson, E., & LeFan, J. (1970). To err is humanizing sometimes: Effects of self-esteem, competence, and a pratfall on interpersonal attraction. *Journal of Personality and Social Psychology, 16*, 259–264. <http://dx.doi.org/10.1037/h0029848>
- Hewitt, P. L., Flett, G. L., Sherry, S. B., Habke, M., Parkin, M., Lam, R. W., . . . Stein, M. B. (2003). The interpersonal expression of perfection: Perfectionistic self-presentation and psychological distress. *Journal of Personality and Social Psychology, 84*, 1303–1325. <http://dx.doi.org/10.1037/0022-3514.84.6.1303>
- Hofmann, S. G., Heering, S., Sawyer, A. T., & Asnaani, A. (2009). How to handle anxiety: The effects of reappraisal, acceptance, and suppression strategies on anxious arousal. *Behaviour Research and Therapy, 47*, 389–394. <http://dx.doi.org/10.1016/j.brat.2009.02.010>
- Holmes, J. G. (1991). Trust and the appraisal process in close relationships. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships: Vol. 2. A research annual* (pp. 57–104). Oxford, UK: Jessica Kingsley Publishers.
- Hoogland, C. E., Schurtz, D., Cooper, C. M., Combs, D. J. Y., Brown, E. G., Smith, R., van de Ven, N. (2015). The roles of inferiority, undeservingness of the misfortune, and malicious envy in schadenfreude. *Motivation and Emotion, 39*, 260–281. <http://dx.doi.org/10.1007/s11031-014-9447-9>
- Huang, L., & Knight, A. P. (2017). Resources and relationships in entrepreneurship: an exchange theory of the development and effects of the entrepreneur-investor relationship. *Academy of Management Review, 42*, 80–102.
- Jones, E. E., & Pittman, T. S. (1982). Toward a general theory of strategic self-presentation. In J. Suls (Ed.), *Psychological perspectives on the self* (pp. 231–261). Hillsdale, NJ: Erlbaum.
- Jordan, A. H., Monin, B., Dweck, C. S., Lovett, B. J., John, O. P., & Gross, J. J. (2011). Misery has more company than people think: Underestimating the prevalence of others' negative emotions. *Personality and Social Psychology Bulletin, 37*, 120–135. <http://dx.doi.org/10.1177/0146167210390822>
- Kamins, M. A., & Marks, L. J. (1987). Advertising puffery: The impact of using two-sided claims on product attitude and purchase intention. *Journal of Advertising, 16*, 6–15. <http://dx.doi.org/10.1080/00913367.1987.10673090>
- Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition and Emotion, 13*, 505–521. <http://dx.doi.org/10.1080/026999399379168>
- Kilduff, G. J., & Galinsky, A. D. (2013). From the ephemeral to the enduring: How approach-oriented mindsets lead to greater status. *Journal of Personality and Social Psychology, 105*, 816.
- Kirzner, I. M. (1999). Creativity and/or alertness: A reconsideration of the Schumpeterian entrepreneur. *The Review of Austrian Economics, 11*, 5–17. <http://dx.doi.org/10.1023/A:1007719905868>
- Krasnova, H., Wenninger, H., Widjaja, T., & Buxmann, P. (2013, February). *Envy on Facebook: A hidden threat to users' life satisfaction?* Paper presented at the 11th International Conference on Wirtschaftsinformatik. Leipzig, Germany.
- Lange, J., & Crusius, J. (2015). The tango of two deadly sins: The social-functional relation of envy and pride. *Journal of Personality and Social Psychology, 109*, 453–472. <http://dx.doi.org/10.1037/pspi0000026>
- Leary, M. R., & Kowalski, R. M. (1990). Impression management: A literature review and two-component model. *Psychological Bulletin, 107*, 34–47. <http://dx.doi.org/10.1037/0033-2909.107.1.34>

- Lee, K., & Duffy, M. K. (2014, August). *When and how workplace envy promotes job performance*. Paper presented at the Annual Meeting of the Academy of Management, Philadelphia, PA.
- Lin-Siegler, X., Ahn, J. N., Chen, J., Fang, F. F. A., & Luna-Lucero, M. (2016). Even Einstein struggled: Effects of learning about great scientists' struggles on high school students' motivation to learn science. *Journal of Educational Psychology, 108*, 314–328. <http://dx.doi.org/10.1037/edu0000092>
- Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology, 73*, 91–103. <http://dx.doi.org/10.1037/0022-3514.73.1.91>
- Magee, J. C., & Galinsky, A. D. (2008). 8 social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals, 2*, 351–398.
- Mauss, I. B., Cook, C. L., Cheng, J. Y., & Gross, J. J. (2007). Individual differences in cognitive reappraisal: Experiential and physiological responses to an anger provocation. *International Journal of Psychophysiology, 66*, 116–124. <http://dx.doi.org/10.1016/j.ijpsycho.2007.03.017>
- McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship Theory & Practice, 33*, 965–988. <http://dx.doi.org/10.1111/j.1540-6520.2009.00304.x>
- Menon, T., & Thompson, L. (2010). Envy at work. *Harvard Business Review, 88*, 74–79.
- Menon, T., Thompson, L., & Choi, H. S. (2006). Tainted knowledge vs. tempting knowledge: People avoid knowledge from internal rivals and seek knowledge from external rivals. *Management Science, 52*, 1129–1144. <http://dx.doi.org/10.1287/mnsc.1060.0525>
- Miceli, M., & Castelfranchi, C. (2007). The envious mind. *Cognition and Emotion, 21*, 449–479. <http://dx.doi.org/10.1080/02699930600814735>
- Moran, S., & Schweitzer, M. E. (2008). When better is worse: Envy and the use of deception. *Negotiation and Conflict Management Research, 1*, 3–29. <http://dx.doi.org/10.1111/j.1750-4716.2007.00002.x>
- Moran, S., Schweitzer, M. E., & Miller, M. (2009, August). *Why dogs are high performers' best friends: How warmth curtails the harmful effects of envy*. Paper presented at the Annual Meeting of the Academy of Management, Chicago, IL.
- Neisser, U. (1980). On "social knowing". *Personality and Social Psychology Bulletin, 6*, 601–605. <http://dx.doi.org/10.1177/014616728064012>
- Niven, K., Totterdell, P., & Holman, D. (2009). A classification of controlled interpersonal affect regulation strategies. *Emotion, 9*, 498–509. <http://dx.doi.org/10.1037/a0015962>
- Parks, C. D., Rumble, A. C., & Posey, D. C. (2002). The effects of envy on reciprocation in a social dilemma. *Personality and Social Psychology Bulletin, 28*, 509–520. <http://dx.doi.org/10.1177/0146167202287008>
- Parrott, W. G., & Smith, R. H. (1993). Distinguishing the experiences of envy and jealousy. *Journal of Personality and Social Psychology, 64*, 906–920. <http://dx.doi.org/10.1037/0022-3514.64.6.906>
- Pechmann, C. (1992). Predicting when two-sided ads will be more effective than one-sided ads: The role of correlational and correspondent inferences. *Journal of Marketing Research, 29*, 441–453. <http://dx.doi.org/10.1177/002224379202900405>
- Pennebaker, J. W. (1989). Confession, inhibition and disease. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 211–244). Orlando, FL: Academic Press.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science, 8*, 162–166. <http://dx.doi.org/10.1111/j.1467-9280.1997.tb00403.x>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879–891. <http://dx.doi.org/10.3758/BRM.40.3.879>
- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods, 16*, 93–115. <http://dx.doi.org/10.1037/a0022658>
- Ross, J., Irani, L., Silberman, M., Zaldivar, A., & Tomlinson, B. (2010, April). Who are the crowdworkers? Shifting demographics in mechanical turk. *Extended abstracts on Human factors in computing systems* (pp. 2863–2872). New York, NY: ACM.
- Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. *Advances in Experimental Social Psychology, 10*, 173–220. [http://dx.doi.org/10.1016/S0065-2601\(08\)60357-3](http://dx.doi.org/10.1016/S0065-2601(08)60357-3)
- Salovey, P., & Rodin, J. (1984). Some antecedents and consequences of social-comparison jealousy. *Journal of Personality and Social Psychology, 47*, 780–792. <http://dx.doi.org/10.1037/0022-3514.47.4.780>
- Salovey, P., & Rodin, J. (1988). Coping with envy and jealousy. *Journal of Social and Clinical Psychology, 7*, 15–33. <http://dx.doi.org/10.1521/jscp.1988.7.1.15>
- Salovey, P., & Rodin, J. (1991). Provoking jealousy and envy: Domain relevance and self-esteem threat. *Journal of Social and Clinical Psychology, 10*, 395–413. <http://dx.doi.org/10.1521/jscp.1991.10.4.395>
- Schaubroeck, J., & Lam, S. (2004). Comparing lots before and after: Promotion rejectees' invidious reactions to promotees. *Organizational Behavior and Human Decision Processes, 94*, 33–47. <http://dx.doi.org/10.1016/j.obhdp.2004.01.001>
- Schweitzer, M. E., & Gibson, D. E. (2008). Fairness, feelings, and ethical decision-making: Consequences of violating community standards of fairness. *Journal of Business Ethics, 77*, 287–301. <http://dx.doi.org/10.1007/s10551-007-9350-3>
- Scopelliti, I., Loewenstein, G., & Vosgerau, J. (2014). *You call it "self-exuberance," I call it "bragging." Miscalibration in predicted emotional responses to self-promotion* [Working Paper]. Retrieved from <http://ssrn.com/abstract=2502012>
- Sezer, O., Gino, F., & Norton, M. I. (2018). Humblebragging: A distinct—and ineffective—Self-presentation strategy. *Journal of Personality and Social Psychology, 114*, 52–74.
- Shariff, A. F., & Tracy, J. L. (2009). Knowing who's boss: Implicit perceptions of status from the nonverbal expression of pride. *Emotion, 9*, 631–639. <http://dx.doi.org/10.1037/a0017089>
- Silver, M., & Sabini, J. (1978). The perception of envy. *Social Psychology, 41*, 105–117. <http://dx.doi.org/10.2307/3033570>
- Small, M. L. (2017). *Someone to talk to*. New York, NY: Oxford University Press. <http://dx.doi.org/10.1093/oso/9780190661427.001.0001>
- Smith, R. H. (2000). Assimilative and contrastive emotional reactions to upward and downward social comparisons. In J. Suls & L. Wheeler (Eds.), *Handbook of Social Comparison: Theory and Research* (pp. 173–200). Dordrecht, the Netherlands: Kluwer Academic Publishers. http://dx.doi.org/10.1007/978-1-4615-4237-7_10
- Smith, R. H. (2004). Envy and its transmutations. In C. W. Leach & L. Z. Tiedens (Eds.), *The social life of emotions* (pp. 43–63). Cambridge, UK: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511819568.004>
- Smith, R. E., & Hunt, S. D. (1978). Attributional processes and effects in promotional situations. *Journal of Consumer Research, 5*, 149–158. <http://dx.doi.org/10.1086/208725>
- Smith, R. H., & Kim, S. H. (2007). Comprehending envy. *Psychological Bulletin, 133*, 46–64. <http://dx.doi.org/10.1037/0033-2909.133.1.46>
- Stefan, M. (2010). A CV of failures. *Nature, 468*, 467. <http://dx.doi.org/10.1038/nj7322-467a>
- Steinmetz, J., & O'Brien, E. (2016, January). *Too easy: When and why effortlessly successful others are disliked*. Paper presented at the 17th Annual Conference of the Society for Personality and Social Psychology, San Diego, CA.
- Stevens, C. K., & Kristof, A. L. (1995). Making the right impression: A field study of applicant impression management during job interviews.

- Journal of Applied Psychology*, 80, 587–606. <http://dx.doi.org/10.1037/0021-9010.80.5.587>
- Stinchcombe, A. L. (1965). Organizations and social structure. *Handbook of Organizations*, 44, 142–193.
- Swanson, A. (2016, April 28). Why it feels so good to read about this Princeton professor's failures. *Washington Post*. Retrieved from www.washingtonpost.com
- Tesser, A., & Collins, J. E. (1988). Emotion in social reflection and comparison situations: Intuitive, systematic, and exploratory approaches. *Journal of Personality and Social Psychology*, 55, 695–709. <http://dx.doi.org/10.1037/0022-3514.55.5.695>
- Tesser, A., Millar, M., & Moore, J. (1988). Some affective consequences of social comparison and reflection processes: The pain and pleasure of being close. *Journal of Personality and Social Psychology*, 54, 49–61. <http://dx.doi.org/10.1037/0022-3514.54.1.49>
- Tracy, J. L., & Matsumoto, D. (2008). The spontaneous expression of pride and shame: Evidence for biologically innate nonverbal displays. *Proceedings of the National Academy of Sciences of the United States of America*, 105, 11655–11660. <http://dx.doi.org/10.1073/pnas.0802686105>
- Tracy, J. L., & Prehn, C. (2012). Arrogant or self-confident? The use of contextual knowledge to differentiate hubristic and authentic pride from a single nonverbal expression. *Cognition and Emotion*, 26, 14–24. <http://dx.doi.org/10.1080/02699931.2011.561298>
- Tracy, J. L., & Robins, R. W. (2004a). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry*, 15, 103–125. http://dx.doi.org/10.1207/s15327965pli1502_01
- Tracy, J. L., & Robins, R. W. (2004b). Show your pride: Evidence for a discrete emotion expression. *Psychological Science*, 15, 194–197. <http://dx.doi.org/10.1111/j.0956-7976.2004.01503008.x>
- Tracy, J. L., & Robins, R. W. (2007). The psychological structure of pride: A tale of two facets. *Journal of Personality and Social Psychology*, 92, 506–525. <http://dx.doi.org/10.1037/0022-3514.92.3.506>
- Tracy, J. L., Shariff, A. F., & Cheng, J. T. (2010). A naturalist's view of pride. *Emotion Review*, 2, 163–177. <http://dx.doi.org/10.1177/1754073909354627>
- van de Ven, N., Hoogland, C. E., Smith, R. H., Van Dijk, W. W., Breugelmans, S. M., & Zeelenberg, M. (2015). When envy leads to schadenfreude. *Cognition and Emotion*, 29, 1007–1025. <http://dx.doi.org/10.1080/02699931.2014.961903>
- van de Ven, N., Zeelenberg, M., & Pieters, R. (2009). Leveling up and down: The experiences of benign and malicious envy. *Emotion*, 9, 419–429. <http://dx.doi.org/10.1037/a0015669>
- van de Ven, N., Zeelenberg, M., & Pieters, R. (2010). Warding off the evil eye: When the fear of being envied increases prosocial behavior. *Psychological Science*, 21, 1671–1677. <http://dx.doi.org/10.1177/0956797610385352>
- van de Ven, N., Zeelenberg, M., & Pieters, R. (2011a). The envy premium in product evaluation. *Journal of Consumer Research*, 37, 984–998. <http://dx.doi.org/10.1086/657239>
- van de Ven, N., Zeelenberg, M., & Pieters, R. (2011b). Why envy outperforms admiration. *Personality and Social Psychology Bulletin*, 37, 784–795. <http://dx.doi.org/10.1177/0146167211400421>
- van de Ven, N., Zeelenberg, M., & Pieters, R. (2012). Appraisal patterns of envy and related emotions. *Motivation and Emotion*, 36, 195–204. <http://dx.doi.org/10.1007/s11031-011-9235-8>
- Van Dijk, W. W., Ouwerkerk, J. W., Smith, R. H., & Cikara, M. (2015). The role of self-evaluation and envy in schadenfreude. *European Review of Social Psychology*, 26, 247–282. <http://dx.doi.org/10.1080/10463283.2015.1111600>
- Van Kleef, G. A. (2009). How emotions regulate social life: The emotions as social information (EASI) model. *Current Directions in Psychological Science*, 18, 184–188. <http://dx.doi.org/10.1111/j.1467-8721.2009.01633.x>
- Van Kleef, G. A., Van Doorn, E. A., Heerdink, M. W., & Koning, L. F. (2011). Emotion is for influence. *European Review of Social Psychology*, 22, 114–163. <http://dx.doi.org/10.1080/10463283.2011.627192>
- Vecchio, R. P. (2000). Negative emotion in the workplace: Employee jealousy and envy. *International Journal of Stress Management*, 7, 161–179. <http://dx.doi.org/10.1023/A:1009592430712>
- Weidman, A. C., Cheng, J. T., & Tracy, J. L. (2018). The psychological structure of humility. *Journal of Personality and Social Psychology*, 114, 153–178.
- Williams, L. A., & DeSteno, D. (2009). Pride: Adaptive social emotion or seventh sin? *Psychological Science*, 20, 284–288. <http://dx.doi.org/10.1111/j.1467-9280.2009.02292.x>
- Wolf, E. B., Lee, J. J., Sah, S., & Brooks, A. W. (2016). Managing perceptions of distress at work: Reframing emotion as passion. *Organizational Behavior and Human Decision Processes*, 137, 1–12. <http://dx.doi.org/10.1016/j.obhdp.2016.07.003>
- Wosinska, W., Dabul, A. J., Whetstone-Dion, R., & Cialdini, R. B. (1996). Self-presentational responses to success in the organization: The costs and benefits of modesty. *Basic and Applied Social Psychology*, 18, 229–242. http://dx.doi.org/10.1207/s15324834basp1802_8
- Zaki, J., & Williams, W. C. (2013). Interpersonal emotion regulation. *Emotion*, 13, 803–810. <http://dx.doi.org/10.1037/a0033839>
- Zell, A. L., & Exline, J. J. (2010). How does it feel to be outperformed by a “good winner”? Prize sharing and self-deprecating as appeasement strategies. *Basic and Applied Social Psychology*, 32, 69–85. <http://dx.doi.org/10.1080/01973530903540125>
- Zizzo, D. J., & Oswald, A. J. (2001). Are people willing to pay to reduce others' incomes? *Annales d'Economie et de Statistique*, 63, 39–65. <http://dx.doi.org/10.2307/20076295>

Appendix

Stimuli and Measures

Biography Stimuli (Study 1)

For Participants Aged 19–22

“Only successes revealed” condition. I study at one of the top three colleges in the country. For my summer internship, I was selected from a nationwide pool of applicants. I was paid \$6,000 for the summer internship. I also won a competitive national fellowship. Recently I was featured in my college’s campus newspaper.

“Successes and failures revealed” condition. I study at one of the top three colleges in the country. For my summer internship, I was selected from a nationwide pool of applicants. I was paid \$6,000 for the summer internship. I also won a competitive national fellowship. Recently I was featured in my college’s campus newspaper. *[In the past, I had been rejected from a different summer internship. Before, I also lost a different national fellowship competition.]*

“Successes and extra information” condition. I study at one of the top three colleges in the country. For my summer internship, I was selected from a nationwide pool of applicants. I was paid \$6,000 for the summer internship. I also won a competitive national fellowship. Recently I was featured in my college’s campus newspaper. *[(My MTurk worker ID: A7IYSXSSGW80FN)]*

For Participants Aged 23–26

“Only successes revealed” condition. I work at one of the top three organizations in my field. For my current position, I was selected from a nationwide pool of applicants. I make \$60,000 per year. I have also been invited to give talks at national conferences. Recently I was featured in my college’s alumni magazine.

“Successes and failures revealed” condition. I work at one of the top three organizations in my field. For my current position, I was selected from a nationwide pool of applicants. I make \$60,000 per year. I have also been invited to give talks at national conferences. Recently I was featured in my college’s alumni magazine. *[In the past, I had been rejected from a different job position. Before, I had also been rejected to speak at a different national conference.]*

“Successes and extra information” condition. I work at one of the top three organizations in my field. For my current position, I was selected from a nationwide pool of applicants. I make \$60,000 per year. I have also been invited to give talks at national conferences. Recently I was featured in my college’s alumni magazine. *[(My MTurk worker ID: A7IYSXSSGW80FN)]*

Sample Participant-Generated Biographies (from Study 1)

Example 1

During college, I held an internship at a small, boutique PR firm where I assisted the account executive on brand strategy and developing media blitzes for various clothing and accessory brands. After graduating from college with a marketing degree, I joined an advertising agency as an assistant account executive, where I was assigned to various teams to develop and marketing plans for a video game device, the brand image for a travel company, and a line of cosmetics. I was promoted to account executive this year, and I currently oversee the work of two assistants, while being responsible for sales and two electronics firm accounts.

Example 2

I have worked for three separate institutions since I graduated college in 2010. I fell into the first position because it was nearing graduation and I was desperate [sic] to find a job so I took a temp position at a large bank. From there I became a bank examiner for a State. Finally, I ended up back in the banking sector at another large, well-known bank.

Example 3

I recently received my bachelor’s degree in Marketing and currently am interested in graduate school. After graduation, I received a position at a local university as an assistant to the head of recreational services and activities. Although I am technically only an assistant, I spent a great majority of my time working on publicity and advertising for various events and promotions the our [sic] department hosts. I very much enjoy my job and hope to remain here for a long time.

Example 4

I started out as a mid-year replacement English teacher in January. After the school year ended, I was told I would be rehired and in fact was asked to be head of the department (granted, “the department” was only four others) I gladly took the position and worked as Department Head for three years. I created the curriculum and taught several classes while being in charge of the development of my department. I then left the school and moved to another city where I again got a job as an English teacher and was then, after only a year, asked to serve as department head.

(Appendix continues)

Individual-Level Status and Failure Revelation Manipulations (Study 2A)

“Highly Successful Individual” Manipulation

In our research, we track people’s careers over the course of many years. One of the people we have tracked is 44 years old and is the CEO of a large Fortune 500 company. This person wrote a short biography about their career when they were 24 years old (20 years ago). They have given us permission to share this personal career biography in this study with the hope that reading it might help other in their careers. Here is the personal career biography (written by Fortune 500 CEO back when 24 years old).

“Moderately Successful Individual” Manipulation

In our research, we track people’s careers over the course of many years. One of the people we have tracked is 44 years old. This person bounced around between jobs throughout the course of their career and is now a manager at a small local business. This person wrote a short biography about their career when they were 24 years old (20 years ago). They have given us permission to share this personal career biography in this study with the hope that reading it might help other in their careers. Here is the personal career biography (written by Manager of a Local Small Business back when 24 years old).

“Only Successes Revealed” Manipulation

I went to a top tier college, and graduated at the top of my class. When I graduated I didn’t have much career experience. I sent out about twenty job applications. I was ultimately offered an entry-level position at a large organization, which is where I’ve been working since then. I had to learn quickly to build up my knowledge and skills.

Recently I’ve been doing really well at my job, and I’ve just been promoted to a well-respected position. I’m the youngest person ever at my organization to get promoted. I also recently received a raise and now make \$60,000 a year. My job gives me lots of creativity and flexibility, and I get to travel often to cities across the country to give presentations. I really enjoy what I do, and I feel like I’m on a great career track.

“Successes and Failures Revealed” Manipulation

I went to a top tier college, and graduated at the top of my class. When I graduated I didn’t have much career experience. I sent out about twenty job applications but didn’t hear back from any of those. Even though I failed at my first job search, I was ultimately

offered an entry-level position at a large organization, which is where I’ve been working since then. My first six months on the job were very rocky, since the projects that I worked on turned out badly. I had received a lot of criticism, and I was worried that I was going to get fired. I had to learn quickly to build up my knowledge and skills.

Recently I’ve been doing really well at my job, and I’ve just been promoted to a well-respected position. I’m the youngest person ever at my organization to get promoted. I also recently received a raise and now make \$60,000 a year. My job gives me lots of creativity and flexibility, and I get to travel often to cities across the country to give presentations. I really enjoy what I do, and I feel like I’m on a great career track.

Biography Stimuli (Study 2B)

“Only Successes Revealed” Condition

I went to a top college and graduated at the top of my class. When I graduated I didn’t have much career experience. I sent out about twenty job applications. I was ultimately offered an entry-level position at a large organization, which is where I’ve been working since then. I had to learn quickly to build up my knowledge and skills. Recently I’ve been doing really well at my job, and I’ve just been promoted to a well-respected position. I’m the youngest person ever at my organization to get promoted. I also recently received a raise and now make \$60,000 a year. My job gives me lots of creativity and flexibility, and I get to travel often to cities across the country to give presentations. I really enjoy what I do, and I feel like I’m on a great career track.

“Successes and Failures Revealed” Condition

I went to a top college and graduated at the top of my class. When I graduated I didn’t have much career experience. I sent out about twenty job applications [*but didn’t hear back from any of those*]. [*Even though I failed at my first job search*], I was ultimately offered an entry-level position at a large organization, which is where I’ve been working since then. [*My first six months on the job were very rocky, since the projects that I worked on turned out badly. I had received a lot of criticism, and I was worried that I was going to get fired.*] I had to learn quickly to build up my knowledge and skills. Recently I’ve been doing really well at my job, and I’ve just been promoted to a well-respected position. I’m the youngest person ever at my organization to get promoted. I also recently received a raise and now make \$60,000 a year. My job gives me lots of creativity and flexibility, and I get to travel often to cities across the country to give presentations. I really enjoy what I do, and I feel like I’m on a great career track.

(Appendix continues)

Entrepreneurial Pitch Scripts (Study 3)

“Only Successes Revealed” Condition

Hi, I’m the founder of Hypios. I have a PhD in computer science from Stanford and have started a company that uses my superior skill set to help companies solve their toughest problems. I have already landed some huge clients—companies like Google and GE. I’ve had AMAZING success, and in the past year I have single-handedly increased our market share by TWO-HUNDRED PERCENT.

I was able to create a startup that helps companies solve their toughest R&D and technical problems by connecting them to a network of over 150,000 scientists and PhDs in over 150 countries around the world. I cultivated this network and developed an exclusive algorithm that matches the problem to the problem solvers who are best equipped to solve the problem. The Hypios problem solvers can earn money for each problem they help solve.

We have a success rate of almost NINETY-NINE PERCENT. I am proud to say that we have a huge number of success stories with our clients. I am a problem solver. And that’s what we do at my company. At Hypios.com, we solve problems.

“Successes and Failures Revealed” Condition

Hi, I’m the founder of Hypios. I have a PhD in computer science from Stanford and have started a company that uses my superior skill set to help companies solve their toughest problems. I have already landed some huge clients—companies like Google and GE. I’ve had AMAZING success, and in the past year I have single-handedly increased our market share by TWO-HUNDRED PERCENT.

I wasn’t always so successful. I had a lot of trouble getting to where I am now. I almost failed out of grad school because I wasn’t picking up the course material as well as my peers. I was completely new to the academic world, and I struggled to demonstrate my potential to my professors and colleagues. Similarly, when I started my company, Hypios, I also failed to demonstrate why potential clients should believe in me and our mission. Many potential clients turned me down. But I persevered.

I was able to create a startup that helps companies solve their toughest R&D and technical problems by connecting them to a network of over 150,000 scientists and PhDs in over 150 countries around the world. I cultivated this network and developed an exclusive algorithm that matches the problem to the problem solvers who are best equipped to solve the problem. The Hypios problem solvers can earn money for each problem they help solve.

I started out with a very low problem-solving success rate, and it almost killed my company. I had a number of failed efforts with my initial matching algorithm and some companies were about to give up on me. But I worked hard to fix those problems and now we have a success rate of almost NINETY-NINE PERCENT. I am proud to say that we have a huge number of success stories with

our clients. I am a problem solver. And that’s what we do at my company. At Hypios.com, we solve problems.

Professional Domain Measures (Studies 1, 2B)

What is your professional field/industry/academic major?

Study 1

1. Academia
2. Art
3. Creative Writing
4. Education
5. Healthcare
6. Law
7. Marketing & Advertising
8. Media & Journalism
9. Non-Profit & Philanthropy
10. Policy & Government
11. Tech & Computer Science

Study 2B

1. Administrative Services
2. Art & Design
3. Creative Writing & Publishing
4. Education
5. Engineering
6. Healthcare
7. Law
8. Marketing & Advertising
9. Media & Journalism
10. Non-Profit & Philanthropy
11. Policy & Government
12. Public Relations
13. Tech & Computer Science

(Appendix continues)

Episodic Envy Measure (Study 1, 2B)

Please indicate the extent to which you believe that most other people would agree with the following statements about this person. (1 = *strongly disagree*, 7 = *strongly agree*)

1. Others feel some hatred toward this person.
2. Others feel resentful of this person.
3. Others have a grudge against this person.
4. Others feel bitter toward this person.
5. Others feel irritated at this person.
6. Others want what this person has.
7. Others lack what this person has.
8. Others feel that this person has a better career than they do.
9. Others feel envious toward this person.

Malicious Envy Measure (Study 2A)

Based on his/her message, how would most OTHER people view the other participant? (1 = *not at all*, 7 = *very much*)

1. Other people would wish that this person hadn't been successful.
2. Other people would wish that this person would fail at something.
3. Other people would not want this person to be successful in the future.
4. Other people would secretly want to take opportunities away from this person.
5. This person is someone that others would want to gossip about.

Perceived Success Measure (Study 2A)

After reading their personal career biography written at age 24, please indicate your view of this person now. (1 = *not at all*, 7 = *very much*)

1. The person who wrote this is very successful now.

2. I thought the person who wrote this has many achievements and is successful overall.
3. The person who wrote this is very competent.
4. The person who write this is a high performer.

Admiration Measure (Study 2B)

Please indicate the extent to which you agree with the following statements about this person. (1 = *strongly disagree*, 7 = *strongly agree*)

1. I admire this person.
2. This person's accomplishments are admirable.
3. This person's accomplishments reveal much about this person.
4. I want to be like this person.
5. This person is an excellent role model.

Perceived Value of Achievements (Study 2B)

Please indicate the extent to which you agree with the following statements about this person. (1 = *strongly disagree*, 7 = *strongly agree*)

1. I think this person's achievements are valuable.
2. I respect this person's achievements.
3. I approve of this person's achievements.
4. I think this person's achievements are important.

Benign Envy Measure (Study 3)

Please indicate your response for the following statements about this entrepreneur. (1 = *not at all*, 7 = *very much*)

1. This entrepreneur inspires me to work harder to get startup capital.
2. I will try harder to obtain funding for my startup at the next opportunity.
3. I want to be like this entrepreneur.
4. This entrepreneur's success encourages me.
5. This entrepreneur motivates me to emulate him/her.

(Appendix continues)

Malicious Envy Measure (Study 3)

Please indicate your response for the following statements about this entrepreneur. (1 = *not at all*, 7 = *very much*)

1. Other competitors in the pitch competition would say that they wished this entrepreneur failed at something.
2. Other competitors in the pitch competition would secretly want to take funding away from this entrepreneur's startup.
3. Other competitors in the pitch competition would not want this entrepreneur to win the pitch competition.
4. Other competitors in the pitch competition would not want this entrepreneur to win the \$7,500 cash prize.
5. This entrepreneur is someone that other competitors in the pitch competition would want to gossip about.

Perceived Hubristic Pride Measure (Study 3)

Please indicate how strongly this entrepreneur appeared to feel . . . (1 = *not at all*, 7 = *very much*)

1. conceited
2. arrogant
3. stuck-up

4. pompous
5. snobbish
6. egotistical
7. smug

Perceived Authentic Pride Measure (Study 3)

Please indicate how strongly this entrepreneur appeared to feel . . . (1 = *not at all*, 7 = *very much*)

1. like he or she is achieving
2. fulfilled
3. accomplished
4. productive
5. like he or she has self-worth
6. successful
7. confident

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