Bringing You Down Versus Bringing Me Up: Explicit and Implicit Self-Esteem Interact to
Predict Malicious and Benign Envy

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Abstract

Recent research supports the existence of two faces of envy: malicious envy, characterized by the desire to bring an envy target down, and benign envy, characterized by the desire to bring oneself up to the level of an envy target. In the current study, we investigated discrepant high self-esteem (high explicit, low implicit self-esteem) and congruent high self-esteem (high explicit, high implicit) as antecedents of malicious versus benign envy, respectively. Participants with discrepant high self-esteem were particularly likely to rate a target negatively across a variety of attributes and as deserving to fail when the target was an upward rather than downward social comparison, consistent with malicious envy. In contrast, unlike other participants, those with congruent high self-esteem tended to persist longer at a difficult task after an upward rather than downward social comparison, potentially consistent with benign envy. These results suggest novel antecedents of the two faces of envy and novel consequences of self-esteem.

1. Introduction

“One day when the queen asked her mirror:

‘Mirror, mirror, on the wall,

Who in this land is fairest of all?’

It answered:

‘You, my queen, are fair; it is true.

But Snow-White is a thousand times fairer than you.’”

- Jacob and Wilhelm Grimm, *Little Snow-White*

In this classic children’s fairy tale, an evil queen becomes so overwhelmed with envy for Snow White that she plans to kill her with a poisoned apple. This literary representation of envy is a frequent theme in both fiction and reality: a person so riddled with envy attempts, and sometimes succeeds, in eliminating an advantage that another person possesses. However, despite the compelling negative connotation of envy, recent research has supported that two faces of envy exist: the culturally prominent malicious envy and a more positive face, referred to as benign envy (Van de Ven, Zeelenberg, & Pieters, 2009). The purpose of the current research was to examine a possible antecedent of experiencing malicious and benign envy: discrepant versus congruent high explicit self-esteem (H-ESE).

The current research is novel in several respects. First, previous investigations (e.g., Van de Ven et al., 2009) focused on establishing malicious and benign envy as valid constructs by assessing the consequences of the two states after inducing aspects of them. In contrast, we sought to identify antecedents of these emotions in the form of individual differences that should predispose people to experience one or the other. Second, Lange and Crusius (2015) investigated an individual difference antecedent, but they assessed participants’ self-reflections on their

likelihood of experiencing feelings of malicious and benign envy. We instead examined a distinct construct with no such direct relationship to envy: self-esteem. Third, previous research on self-esteem has found that discrepant H-ESE is associated with greater defensive responding than congruent H-ESE (Jordan, Logel, Spencer, & Zanna, 2006). However, measuring indicators of both malicious and benign envy—which represent separate dimensions rather than opposite ends of a single continuum—provides an opportunity to assess both responses consistent with defensiveness (malicious envy) and those consistent with beneficial constructiveness (benign envy) in the same individuals. Fourth, previous research linking defensiveness to discrepant H-ESE typically relied on inducing an obvious and personally relevant threat, such as in the form of administering negative feedback (Jordan, Spencer, & Zanna, 2005; Lambird & Mann, 2006) or making salient personal shortcomings (Kernis, Lakey, & Heppner, 2008) or an unresolved personal dilemma about which participants felt very uncertain (McGregor & Marigold, 2003). In contrast, we tested participant responses after inducing a more subtle threat: upward comparison in a domain in which participants had not actually performed. The current investigation thus has implications for understanding envy and self-esteem.

1.1 The Two Faces of Envy

Envy is a feeling of inferiority that occurs when one person wishes to attain another person's favorable attributes and experiences (Smith, Parrott, Diener, Hoyle, & Kim, 1999; Smith & Kim, 2007). Social comparison is a necessary component of envy (Smith et al., 1999). People engage in social comparison when they evaluate the extent to which they are better or worse than another individual (Festinger, 1954). Social comparison occurs frequently (Wheeler & Miyake, 1992) and has profound impacts on everyday life by influencing people's self-evaluations (e.g., Morse & Gergen, 1970; Brewer & Weber, 1994), affect (e.g., Epstude &

Mussweiler, 2009; Higgins, 1987), goal-pursuit (e.g., Carver & Scheier, 2000; Van Yperen & Leander, 2014) and interpersonal relations (e.g., Dunn et al. 2012; Moran & Schweitzer, 2008). In order to be meaningful and provoke envy, the social comparison must be made to a similar other in an important domain, thereby creating a potential threat to one's self-concept (Salovey & Rodin, 1984; Van de Ven, Zeelenberg, & Pieters, 2012). Although envy and jealousy are used interchangeably in the English language (Smith, Kim, & Parrott, 1988), they have distinct meanings. Envy involves two people and entails the desire of one person to possess the other's favorable attributes, whereas jealousy involves at least three people and entails the fear of losing ground in a meaningful relationship with one person to another (Smith et al., 1999).

Malicious envy represents the conventional view of envy, characterized by the desire to bring the envy target down (Van de Ven et al., 2009). Benign envy, in contrast, is characterized by the desire to bring oneself up to the level of the envy target (Van de Ven, Zeelenberg, & Pieters, 2011b). Although both benign and malicious envy involve a desire to eliminate the advantage the envy target has over oneself, the methods of accomplishing this goal depend on the specific type of envy experienced.

Historically, envy research has focused on malicious envy. Previous studies have associated envy with deleterious consequences such as undermining others to hinder their positive relationships or reputation (Duffy, Scott, Shaw, Tepper, & Aquino, 2012), social loafing (Duffy & Shaw, 2000), decreased cooperation during social dilemmas (Parks, Rumble, & Posey, 2002), and happiness at others' misfortunes (Van Dijk, Ouwerkerk, Goslinga, Nieweg, & Gallucci, 2006). Even though most of the research on envy has neglected benign envy, it is not a new concept in psychology (Rawls, 1971). There has been debate as to whether or not benign envy actually constitutes "envy," because it lacks hostility (Smith & Kim, 2007), but Van de Ven

et al. (2009) provided evidence that both malicious and benign envy are indeed two variations of the same emotion. Malicious and benign envy share overlapping core characteristics, including high perceived similarity to the envy target, high self-relevance of the envy domain, and an explicit comparison to the envy target (Van de Ven et al., 2009).

Despite their similarities, malicious and benign envy have been shown to produce divergent responses. Van de Ven et al. (2009) prompted participants to recall the most recent time they experienced either malicious or benign envy and found that participants who recalled an instance of malicious envy reported more motivation to hurt the envy target, more hope that the envy target would fail, and a greater inclination to derogate the envy target than those who recalled benign envy. In Van de Ven et al. (2011a), participants who imagined feeling malicious envy (vs. benign envy) toward a person in an advertisement were willing to pay significantly less for the advertised product, interpreted as a derogation of anything affiliated with the envy target. Additionally, research focusing on benign envy (Van de Ven et al., 2011b) revealed that participants who imagined feeling benign envy toward the subject of an article anticipated that they would spend significantly more time studying in the future compared to those who imagined feeling malicious envy. Furthermore, those induced to experience benign (vs. malicious) envy persisted longer at a difficult task, presumably in an attempt to improve themselves. Altogether, this research suggests that malicious envy is marked by the desire to remove the advantage an envy target possesses, whereas benign envy is marked by the desire to acquire an advantage comparable to that of an envy target.

1.2 Self-Esteem as a Predictor of Envy

The purpose of the research reviewed above was to determine the motivational, behavioral and emotional outcomes that are associated with benign and malicious envy (Van de

Ven et al., 2011a, 2011b; Crusius & Lange, 2014). In contrast, the current study investigated an individual difference variable as an antecedent to the experience of malicious versus benign envy; specifically, whether people with discrepant H-ESE are more likely to experience malicious envy and those with congruent H-ESE are more likely to experience benign envy.

H-ESE is discrepant when combined with low implicit self-esteem (L-ISE), whereas it is congruent when combined with high implicit self-esteem (H-ISE). Consistent with a dual-attitude perspective (e.g., Epstein, 2006; Wilson, Lindsey, & Schooler, 2000), ESE reflects self-views that are conscious and deliberative, whereas ISE is typically thought to reflect a nonconscious and automatically activated attitude toward the self (Greenwald & Banaji, 1995; Jordan et al., 2006). Although the precise nature of ISE and its measures has been debated (e.g., Buhrmester, Blanton, & Swann, 2011; Olson, Fazio, & Hermann, 2007), perspectives converge to suggest that discrepant H-ESE entails a fragility in positive self-views that manifests as defensive responding (Jordan et al., 2006; Olson et al., 2007). For example, relative to congruent H-ESE, discrepant H-ESE has been associated with greater self-enhancing responses (Bosson, Brown, Zeigler-Hill, & Swann, 2003), a more boastful self-presentational style (Olson et al., 2007), larger in-group bias in a minimal group paradigm (Jordan, Spencer, Zanna, Hoshino-Brown, & Correll, 2003), greater dissonance reduction in the form of larger postdecision spread of alternatives (Jordan et al., 2003), greater expressions of conviction after a threat (McGregor & Marigold, 2003), greater derogation of out-group members (Jordan et al., 2005), poorer self-regulation (Lambird & Mann, 2006), greater verbal defensiveness when discussing a personal shortcoming (Kernis et al., 2008), more behavioral self-handicapping (Lupien, Seery, & Almonte, 2010), and greater attention to defensiveness-related words (Haddock & Gebauer, 2011).

In sum, existing research demonstrates that people with discrepant H-ESE are more likely than those with congruent H-ESE to respond with defensive compensatory measures, especially when their positive self-views are threatened. Theory (Kernis, 2003; Kernis et al., 2008) suggests that discrepant H-ESE reflects H-ESE that is fragile, in that self-worth is positive but vulnerable, requiring validation by meeting external criteria, such as by feeling superior to other people. In contrast, congruent H-ESE reflects H-ESE that is secure, based on deep-seated authenticity and self-acceptance, without a need to compete with others. We therefore propose that individuals with discrepant H-ESE should be particularly likely to view a successful other as a threat to positive self-views. On the other hand, we propose that individuals with congruent H-ESE should be particularly likely to see a successful other as a guide for self-improvement. This logic comports well with findings by Lange and Crusius (2015) regarding envy. Specifically, malicious envy is associated with fear of failing to fulfill a high standard of performance established by an envy target, whereas benign envy is associated with optimism that one can achieve this high standard. The fear in malicious envy seems to parallel the fragility, uncertainty, and desire for superiority in discrepant H-ESE that presumably motivates defensiveness. In contrast, the confidence in benign envy parallels the lack of such fragility, uncertainty, competitiveness, and hence defensiveness in congruent H-ESE. It thus follows that individuals with discrepant H-ESE should be predisposed to experience malicious envy and those with congruent H-ESE should likely experience benign envy.

1.3 Overview and Hypotheses

The goal of the current study was to investigate discrepant H-ESE as an antecedent of malicious envy and congruent H-ESE as an antecedent of benign envy. In a between-subjects design, the predictor variables consisted of continuous measures of ESE and ISE as well as a

manipulation of upward versus downward social comparison (reading about a success versus failure experienced by a fellow student who applied for a prestigious internship). We assessed multiple indicators of both malicious envy (derogation of the envy target, derogation of the target's internship, and the target's deservingness to fail) and benign envy (participants' persistence at a difficult task and predicted future study habits, which reflect opportunities for personal achievement and self-improvement).

We expected that upward social comparison would threaten the fragile self-views of individuals with discrepant H-ESE, leading them to exhibit greater malicious envy than those with congruent H-ESE. Indeed, the indicators of malicious envy (e.g., the desire or act of derogating the envy target) are similar to the compensatory responses displayed by people with discrepant H-ESE in previous research. Conversely, people with congruent H-ESE should be more confident in themselves than those with discrepant H-ESE when exposed to upward social comparison. Hence, people with congruent H-ESE should still desire the advantage the envy target possesses, but their confidence should promote motivation to improve themselves rather than derogate the target, leading to benign envy. We did not expect this pattern to emerge in the downward comparison condition because it should not result in envy (the target does not possess a desirable advantage). Furthermore, because ISE does not reliably predict differences in defensiveness within low explicit self-esteem (L-ESE; Haddock & Gebauer, 2011; Jordan et al., 2003, 2005, 2006), we did not expect this pattern to emerge within L-ESE. We thus hypothesized (1) a three-way interaction between social comparison condition, explicit self-esteem, and implicit self-esteem and (2) a two-way interaction within H-ESE, such that (3) people with discrepant H-ESE exposed to upward social comparison would exhibit greater malicious envy relative to (3a) downward comparison and (3b) congruent H-ESE individuals after upward

comparison, and (4) people with congruent H-ESE exposed to upward comparison would exhibit greater benign envy relative to (4a) downward comparison and (4b) discrepant H-ESE individuals after upward comparison.

2. Methods

2.1 Participants

Participants were 109 undergraduates (71 women) at a large university in the United States who completed the study for partial course credit during the first semester of the academic year; 44.04% had freshman (first-year) standing, 31.19% sophomore, 18.35% junior, and 6.42% senior.

2.2 Measures

2.2.1 Explicit Self-esteem

The Rosenberg Self-Esteem Scale (1965; in Blascovich & Tomaka, 1991) was used as an assessment of ESE. Participants reported their agreement with each of the 10 items using a 7-point scale (1=strongly disagree, 7=strongly agree). To increase the measure's reliability, participants completed two assessments of ESE online, approximately one week apart, before attending the laboratory session (α s=.92, .93; r between assessments=.81). Means for each assessment were separately totaled and then averaged together.

2.2.2 Implicit Self-esteem

Participants completed the Name-Letter Task (Jones, Pelham, Mirenberg, & Hetts, 2002; Koole, Dijksterhuis, & van Knippenberg, 2001; Nuttin, 1985; Shimizu & Pelham, 2011) to measure ISE. We chose the Name-Letter Task because—relative to other potential measures of ISE—it has demonstrated desirable test-retest reliability and predictive validity for related measures, such as interpretation of ambiguous social communication and preference for positive

versus negative feedback (Bosson, Swann, & Pennebaker, 2000). Participants rated their liking for the 26 letters of the alphabet and numbers 1 through 33 using a 7-point scale (1=not at all, 7=extremely). The first letters of participants' first and last names were collected from the information they provided when signing up to participate in the study. Participants reported their day of birth at the end of the study. For participants' first initial, last initial, and the number representing their day of birth, the mean liking rating from the sample as a whole (excluding ratings from other participants with those initials or birthdate) was subtracted from each participant's own liking rating (Shimizu & Pelham, 2011). ISE was computed as the average of participants' relative preference scores for their two initials and day of birth. Higher scores (i.e., greater relative preference for one's own initials and day of birth) reflected higher ISE. To increase reliability of the measure (which is typically lower than optimal; DeHart, Pelham, & Tennen, 2006), participants completed an initial assessment of ISE online, at least one week before attending the laboratory session, and a second assessment during the laboratory session. We combined the two assessments to form a single 6-item scale, which demonstrated adequate reliability ($\alpha=.71$).

2.2.3 Malicious Envy

2.2.3.1 Target Evaluation

Based on items used by Van de Ven et al. (2009, 2011a, 2011b), we created a 21-item measure designed to assess derogation of the target of the article (an indicator of malicious envy; $\alpha=.87$). Participants reported to what extent they thought each of a series of statements described the target, such as, "This person seems fun," and "This person seems arrogant," (reverse scored) using a 7-point scale (1=not at all, 7=extremely). The mean of the items was calculated. Higher values reflected more positive evaluations, and thus lower values greater derogation.

2.2.3.2 Deservingness to Fail

Participants reported their agreement with the item: “This person deserves to fail at something,” using a 7-point scale (1=disagree, 7=agree). Van de Ven et al. (2009) used this item as an indicator of malicious envy.

2.2.2.3 Internship Evaluation

Based on items used by Van de Ven et al. (2011a), we created a 5-item measure designed to assess participants’ derogation of the internship opportunity and the product produced there (indicators of malicious envy; $\alpha=.81$). Similarly to Van de Ven et al. (2011a), we reasoned that individuals who experience malicious envy would endorse more negative ratings of the internship opportunity and affiliated items (i.e., Google Glass), because they are things that elicit envy. Participants responded to items such as “How much would you be interested in getting an internship at Google?” and “How useful do you think Google Glass is likely to be?” using a 7-point scale (1=not at all, 7=extremely). The measure also included items with 9 and 12-point response options, such as “How many weeks out of the summer would you be willing to work at an internship at Google?” and “If you were given \$2,000 to spend on new electronics, how much of the \$2,000 would you be willing to pay to purchase Google Glass?” To accommodate different response scales, items were first standardized before their mean was calculated. Higher values reflected more positive evaluations, and thus lower values greater derogation. Because we expected the items assessing the internship and the product to function identically and because they yielded acceptable reliability as a single scale, results from the single scale are reported. Dividing the items into separate subscales did not affect the pattern of findings.

2.2.4 Benign Envy

2.2.4.1 Task Persistence

Based on Van de Ven et al. (2011b), we included persistence at a difficult task as a measure of benign envy. Specifically, participants attempted a difficult anagram task that required rearranging the letters of a word to create a new phrase. Instructions described the task as an important test of creativity and reasoning ability, which are qualities sought after by internship providers. Participants had up to 15 minutes to complete 3 items, but were told to say aloud if they wanted to stop, even if they had not finished the task. As in Van de Ven et al. (2011b), we reasoned that longer persistence (in seconds) should reflect greater desire to improve oneself and one's outcomes by working harder and longer, consistent with benign envy. We thus used this behavioral measure as a proxy for the experience of benign envy.

2.2.4.2 Future Study Habits

Based on an item used by Van de Ven et al. (2011b), we included a question designed to measure motivation to improve oneself in the future, an indicator of benign envy. Participants were asked, "Compared to what you have done in the semester so far, how many hours more or less per week do you plan to spend studying for/working on Psychology 101 from now until the end of the semester?" Participants responded using 11 options ranging from: 5 (or more) fewer hours per week to 5 (or more) additional hours per week. Higher values reflected greater motivation to improve oneself.

2.3 Procedure

Before the laboratory session, participants completed the Rosenberg Self-Esteem Scale (1965; in Blascovich and Tomaka, 1991) and the Name-Letter Task (Nuttin, 1985; Shimizu & Pelham, 2011) online. Participants completed the laboratory portion of the study individually.

First, participants completed the second assessment of the Name-Letter Task (Nuttin, 1985; Shimizu & Pelham, 2011), which was presented as a "baseline measurement" ostensibly

unrelated to the study to follow. Next, participants were told that the lab was partnering with the university's Career Services office to learn about how students perceive both internships and other students from the university who have applied for internships.

Participants were randomly assigned to read about an upward or downward social comparison target in a "Student Spotlight" article. The article described Jessica or Jeremy (matched for participant gender), portrayed as an undergraduate student at participants' university who had recently applied for a prestigious summer internship at Google, which involved working on Google Glass—a real, new technological device produced by the company. As the manipulation of social comparison, the end of the article revealed that the student was either selected for the position (upward) or not (downward); the two versions of the article were otherwise identical.

After 3 minutes to read the article, participants completed the internship rating, article target evaluation, and deservingness to fail measures. Participants were then told that the Career Services portion of the study was over and that the next part of the study aimed to assess skills and abilities that have been shown to be important for success in internships. Participants then completed the study habits and task persistence measures. Finally, participants were thoroughly debriefed.

3. Results

Multiple regression analyses were used to test the three-way interaction between ESE, ISE, and social comparison condition predicting each indicator of malicious and benign envy. ESE and ISE were treated as continuous variables. Simple effects within high/low ESE and ISE were tested at ± 1 *SD* from the mean, respectively. Correlations and descriptive statistics are reported in Table 1.

3.1 Malicious Envy

3.1.1 Target Evaluation

As expected, the 3-way interaction for derogation of the target (the student featured in the article) was significant, $B=0.314$, $t(101)=3.37$, $sr^2=.091$, $p=.001$; see Figure 1, as was the 2-way interaction between condition and ISE within H-ESE, $B=0.568$, $t(101)=3.74$, $sr^2=.112$, $p<.001$. Consistent with predictions, participants with discrepant H-ESE (H-ESE plus L-ISE) exposed to upward comparison evaluated the target (a) significantly more negatively than when exposed to downward comparison, $B=-0.524$, $t(101)=-2.39$, $sr^2=.038$, $p=.031$, and (b) marginally more negatively than participants with congruent H-ESE (H-ESE plus H-ISE) exposed to upward comparison, $B=0.188$, $t(101)=1.74$, $sr^2=.024$, $p=.085$. The 2-way interaction within L-ESE was not significant, $p=.395$.

3.1.2 Deservingness to Fail

As expected, the 3-way interaction for the target's deservingness to fail was significant, $B=-0.566$, $t(101)=-2.86$, $sr^2=.070$, $p=.005$; see Figure 2, as was the 2-way interaction between condition and ISE within H-ESE, $B=-0.827$, $t(101)=-2.56$, $sr^2=.056$, $p=.012$. Consistent with predictions, participants with discrepant H-ESE exposed to upward comparison rated the target as (a) marginally more deserving to fail than when exposed to downward comparison, $B=0.866$, $t(101)=1.71$, $sr^2=.025$, $p=.091$, and (b) significantly more deserving to fail than participants with congruent H-ESE exposed to upward comparison, $B=-0.559$, $t(101)=-2.43$, $sr^2=.050$, $p=.017$. The 2-way interaction within L-ESE was not significant, $p=.193$.

3.1.3 Internship Evaluation

Failing to support predictions, the 3-way interaction for evaluations of the internship was not significant, $p=.24$.

3.2 Benign Envy

3.2.1 Task Persistence

As expected, the 3-way interaction for persistence at the anagram task was significant, $B=125.33$, $t(99)=3.15$, $sr^2=.090$, $p=.002$; see Figure 3, as was the 2-way interaction between condition and ISE within H-ESE, $B=145.63$, $t(99)=2.23$, $sr^2=.045$, $p=.028$. Although not significant, participants with congruent H-ESE exposed to upward comparison tended to persist longer relative to (a) downward comparison, $p=.102$, and (b) discrepant H-ESE exposed to upward comparison, $p=.216$. The 2-way interaction within L-ESE also approached significance, $B=-136.03$, $t(99)=-1.98$, $sr^2=.036$, $p=.051$, such that participants with L-ESE tended to exhibit the opposite pattern as those with H-ESE.

3.2.2 Future Study Habits

Failing to support predictions, the 3-way interaction for estimated future study habits was not significant, $p=.15$.

4. Discussion

For each of three indicators of malicious envy, we expected a three-way interaction between manipulated social comparison condition, ESE, and ISE, such that people with H-ESE would respond differently than those with L-ESE. We further hypothesized a two-way interaction within H-ESE, such that individuals with discrepant H-ESE (H-ESE plus L-ISE) exposed to upward comparison would respond with greater malicious envy relative to (a) downward comparison and (b) congruent H-ESE (H-ESE plus H-ISE) after upward comparison. Results revealed significant interactions that supported predictions for two of the three indicators of malicious envy: derogation of the social comparison target and the target's deservingness to fail. Specifically, unlike participants with congruent H-ESE, those with discrepant H-ESE rated a

student who succeeded in securing a prestigious internship (upward comparison) significantly more negatively and marginally more deserving to fail than a student who applied for the internship but was not selected (downward comparison). Participants with discrepant H-ESE also rated the successful student marginally more negatively and significantly more deserving to fail than did participants with congruent H-ESE. All else being equal, it seems logical that a successful target should be evaluated more positively than an unsuccessful one, but participants with discrepant H-ESE did not do so. Discrepant H-ESE was instead associated with responses consistent with a desire to bring an envy target down. Failing to support predictions, the three-way interaction was not significant for evaluations of the internship itself.

For each of two indicators of benign envy, we also expected a three-way interaction, such that people with H-ESE would respond differently than those with L-ESE. We further hypothesized a two-way interaction within H-ESE, such that individuals with congruent H-ESE would respond with greater benign envy relative to (a) downward comparison and (b) discrepant H-ESE after upward comparison. Results revealed significant interactions that provided some support for predictions for one indicator of benign envy: task persistence. Specifically, unlike participants with discrepant H-ESE, those with congruent H-ESE tended to persist longer at a difficult anagram task after exposure to the successful student than the unsuccessful student. Although these simple effects failed to reach significance, as did all effects for intentions to study more for a course in which participants were currently enrolled, the pattern of the significant interaction for task persistence suggests that congruent H-ESE may be associated with responses consistent with a desire to improve oneself (i.e., approaching the level of the envy target).

These findings contribute to existing literature in multiple respects. First, for understanding envy, a majority of previous work on malicious and benign envy has focused on their consequences (Crusius & Lange, 2014; Van de Ven et al., 2009, 2011a, 2011b), whereas the current work focused on an antecedent. Second, Lange and Crusius (2015) also investigated an antecedent of malicious and benign envy, although one based on individuals' self-report ratings of their likelihood of experiencing either malicious or benign envy. The current study diverged from Lange and Crusius (2015) by investigating an antecedent with no direct relationship to envy. We proposed, and received empirical support for the idea, that the combination of the individual difference variables of ESE and ISE predisposes people to experience one face of envy versus the other. This establishes a relationship between malicious/benign envy and existing individual differences that are grounded in a sizeable literature. It also supports the general idea that the precise nature of experienced envy—which has important implications for reacting destructively or constructively to threatening information—can be reliably predicted with individual differences that are not defined in terms of envy themselves. This, in turn, suggests that a range of factors may predict envy.

Our findings also contribute to understanding self-esteem. First, the current study tested both defensive responses (i.e., reflecting malicious envy) and conceptually distinct constructive responses (i.e., reflecting benign envy). Typical research has measured relative differences in defensiveness only, revealing defensive responding versus lack thereof. The current results thus suggest that discrepant/congruent H-ESE has implications not just for defensiveness, but also self-directed constructive responding in the face of threat. Notably, such constructive responding was assessed separately from any lack of defensive lashing out at others. Second, previous demonstrations of defensiveness among people with discrepant H-ESE typically relied on

inducing a clearly relevant self-threat (e.g., negative feedback; Jordan et al., 2005; Lambird & Mann, 2006), rather than the more subtle social comparison used here. Importantly, participants had not applied for the (fictitious) internship themselves, and given that the majority (over 75%) were in their first or second year of undergraduate studies, they likely had little experience applying for college internships. This suggests that the upward comparison should not have connoted any negative information about participants' own performance quality or capabilities. Nonetheless, findings for malicious envy paralleled those in previous research (e.g., Jordan et al., 2003, 2005; Lupien et al., 2010; McGregor & Marigold, 2003) linking discrepant H-ESE to defensiveness in the face of threat.

The lack of support for some of our predictions may stem from aspects of the study's methodology. Failure to find differences on the internship rating measure may be explained by the details of the internship described in the Student Spotlight article. The Google internship was presented as a very prestigious opportunity and Google Glass was a new product when the study was conducted, with little access to the mainstream market, so both aspects may have been difficult to derogate. Participant interests could also have played a role. Our participants were undergraduate students—likely of various majors, although they did not report this information—enrolled in an introductory psychology course. Their appreciation of technology-related devices and internships is hence unclear. It is possible that participants recognized someone who secured an internship at Google as successful, but were simply uninterested in Google Glass or working at Google, thereby diminishing this aspect of envy. The lack of differences on the study habits measure may be explained by the question's frame of reference. Many participants were first-semester college students and the study took place at the beginning

of the semester, which may have given participants little opportunity to obtain enough information to make an accurate comparison between their present and future study habits.

Our outcome measures were established in previous research (e.g., Ven de Ven et al., 2009; 2011a; 2011b), but they are not free of limitations. We measured benign envy in particular using behavioral proxies rather than more direct measures of emotional experience. This approach was appealing for the current research question because people with discrepant H-ESE have been shown to be defensive, boastful, and reluctant to admit personal shortcomings after self-threat (Bosson et al., 2003, Kernis et al., 2008, Olson et al, 2007). Malicious envy is relatively other-focused (i.e., derogation), whereas benign envy is relatively self-focused, in that motivation for self-improvement and corresponding emotions entail acknowledging personal shortcomings. It seems plausible that defensiveness could inhibit individuals with discrepant H-ESE from direct expressions of benign envy in an attempt to minimize shortcomings. Indirect measures of benign envy may be less susceptible to defensive responding than direct measures and thus better suited for revealing true differences in internal experience between discrepant and congruent H-ESE, rather than differences in self-presentation. This is speculative, however, which makes direct assessment of emotional aspects of benign envy an important direction for future research.

Consistent with previous work on defensive and compensatory responses (e.g., Haddock & Gebauer, 2011; Jordan et al., 2003, 2005, 2006), ISE and social comparison condition did not significantly interact within L-ESE for indicators of malicious envy in the current study. In contrast, this interaction did approach significance within L-ESE for persistence at the difficult task, an indicator of benign envy. The pattern of the interaction was such that participants with congruent L-ESE (low ESE and ISE) exposed to upward comparison tended to persist longer at a

difficult anagram task than others, thus paralleling congruent H-ESE. The interaction within L-ESE was not predicted, so it merits replication. However, if it proves reliable, it could suggest important implications for ISE among people with L-ESE.

Future research can further examine the connection between ESE and ISE, envy, and other “deadly sins.” For example, Lange & Crusius (2015) found that people exhibit malicious envy after watching an envy target display hubristic pride (arrogance). Individuals with discrepant H-ESE may be more likely than others to exhibit hubristic pride, due to their defensiveness, thus leading them to be more frequent targets of malicious envy. This implies that individuals with discrepant H-ESE may find themselves in a vicious circle of both trying to sabotage other people’s advantages (exhibiting malicious envy) and having their advantages sabotaged (being the target of malicious envy). Also, it is possible that personality traits previously linked to ESE (e.g., dispositional optimism and neuroticism; Scheier, Carver, & Bridges, 1994) could foster the differences in self-esteem that we used as predictors in our study. From this perspective, self-esteem may be conceptualized as a plausible mediator between traits and envy.

5. Conclusions

The current study offers new insight into the antecedents of malicious and benign envy by highlighting the important role that self-esteem plays in predicting them. Our findings further build on existing research exploring the dark side of some forms of H-ESE. Future research has the potential to better understand when people will exhibit malicious versus benign envy. Malicious envy has historically led to destructive consequences in society, and identifying who is most likely to exhibit malicious envy may make it possible to foster constructive responses in the form of benign envy instead.

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Tables

Table 1

Correlations and Descriptive Statistics

Measure	1.	2.	3.	4.	5.	6.	7.
1. Rosenberg SE	--						
2. NLT	.12	--					
3. Target Evaluation	.11	.03	--				
4. Deservingness to Fail	-.15	-.20*	-.37***	--			
5. Internship Evaluation	.00	-.14	.26**	.07	--		
6. Task Persistence	.00	-.03	.11	-.11	.05	--	
7. Future Study Habits	.21*	.00	-.03	.00	.09	.01	--
<i>M</i>	5.22	1.44	4.99	2.01	0	570.76	6.32
<i>SD</i>	1.12	.99	.62	1.28	.76	250.61	2.95

Note. SE = self-esteem, NLT = Name Letter Task.

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

Figures

Figure 1. Evaluation of the article target as a function of ESE, ISE, and social comparison condition. Lower target ratings represent greater derogation. “High” and “low” ESE/ISE are represented by values ± 1 SD from the mean.

Figure 2. Rating of the article target's deservingness to fail as a function of ESE, ISE, and social comparison condition. Higher ratings represent greater deservingness to fail. "High" and "low" ESE/ISE are represented by values ± 1 *SD* from the mean.

Figure 3. Persistence (in seconds) at the anagram task as a function of ESE, ISE, and social comparison condition. “High” and “low” ESE/ISE are represented by values ± 1 SD from the mean.