Does Perceived Unfairness Exacerbate or Mitigate Interpersonal Counterproductive Work Behaviors Related to Envy?

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The authors examined how the interaction between perceived unfairness and episodic envy predicts interpersonal counterproductive work behaviors toward the envied other. In 2 studies using different samples and methods to elicit envy, predictions were compared based on the social exchange and attribution models of fairness. The results support the social exchange model of fairness, showing that higher levels of envy and perceived unfairness result in higher levels of interpersonal counterproductive work behavior (Study 1), especially among high self-esteem individuals (Study 2).

Keywords: envy, fairness, interpersonal counterproductive work behaviors, self-esteem

Researchers have acknowledged that both unfairness (e.g., Folger & Baron, 1996; Folger & Skarlicki, 1998) and envy (e.g., Mouly & Sankaran, 2002; Salovey & Rodin, 1984; Silver & Sabini, 1978a) can increase the occurrence of interpersonal counterproductive work behaviors—behaviors aimed at inflicting personal harm on another (Conlon, Meyer, & Nowakowski, 2005; Fox & Spector, 1999; Robinson & Bennett, 1995). To date, research has examined the separate—as opposed to the joint—influences of envy and unfairness on interpersonal counterproductive work behaviors. However, given that envy experiences (Miner, 1990) and fairness perceptions are prevalent, often co-occur (e.g., Ben-Ze'ev, 1992; Smith, 1991), and exert important influence on the occurrence of counterproductive work behaviors (e.g., Cohen-Charash, 2005; Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001), consideration of their joint influence is essential to understanding how to reduce interpersonal counterproductive work behaviors in organizations. The current studies fill this gap by examining competing hypotheses based on social exchange and on attribution models of fairness to better understand how the interaction between envy and unfairness predicts interpersonal counterproductive work behaviors. Specifically, in Study 1, we examine whether unfairness exacerbates or mitigates interpersonal counterproductive work behaviors related to envy. In Study 2, we further refine our investigation by examining the role that trait self-esteem plays in the relationship among envy, perceived unfairness, and interpersonal counterproductive work behaviors.

Envy and Interpersonal Counterproductive Work Behaviors

Episodic envy (also referred to here as *envy*) is the negative emotion felt "when a person lacks another's superior quality, achievement, or possession and either desires it or wishes that the

other lacked it" (Parrott & Smith, 1993, p. 906). According to balance theory (Heider, 1958), the self-evaluation maintenance model (Tesser, Millar, & Moore, 1988), and appraisal theory (e.g., Lazarus & Cohen-Charash, 2001), envy occurs when the "thing" one lacks is in a domain that is central to one's self-concept and the envious person perceives the envied person as similar to him or her. Thus, envy is experienced because of a negative social comparison, when Person A notices that a similar other, Person B, has something (e.g., material or personal) that Person A wants but does not have, and the desired object or condition is central to A's self-concept (e.g., Salovey, 1991; Salovey & Rodin, 1984, 1991). Moreover, the negative social comparison can be specific as opposed to all-encompassing, in that the envious person need not feel inferior to the comparison other in all domains. Rather, the experience of envy can occur when individuals experience even a single disadvantage relative to a comparison other (e.g., Schoeck, 1969), as long as this disadvantage is in a domain that is important to the person's sense of self.

Because the emotion of envy involves inferiority relative to a similar other, and because the experience of envy is highly unpleasant, the goal of the envious person is to reduce his or her level of envy by reducing the gap between the envious and the envied (Heider, 1958). Behaviorally, this means equalizing the envious person's position with that of the envied person. According to Heider, one way to equalize positions is by harming the other person. Indeed, most research has shown that behavioral reactions to envy involve harming the other person (Cohen-Charash, 2005; Mouly & Sankaran, 2002; Salovey & Rodin, 1984; Silver & Sabini, 1978a), which may consequently negatively influence work performance, absenteeism, and satisfaction of work group members (Duffy & Shaw, 2000).

Engaging in interpersonal counterproductive work behaviors (also referred to here as *harming behaviors*) can help the person experiencing envy achieve three goals. First, harming envied others can reduce the envious person's frustration with feeling inferior (Fox & Spector, 1999; Kulik & Brown, 1979; Smith, 1991; Spector, 1975, 1978) and, thereby, serve as an affect-regulation technique (Baumeister, Smart, & Boden, 1996; Bushman, Baumeister, & Phillips, 2001). Second, harming envied others can reduce the envy-provoking advantage the envied person has, thereby helping

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to equate the lots of the person experiencing envy and the envied person (Heider, 1958; Silver & Sabini, 1978a). Third, because hostility is empowering and helps compensate for one's sense of inadequacy (Barth, 1988), engaging in harming behaviors may help protect the envious person's wounded self-esteem. Indeed, research has shown that harming behaviors lead to an increase in self-esteem (Fein & Spencer, 1997).

Perceived Unfairness in the Context of Envy

The fairness literature has developed rapidly, yielding many rich and elaborated perspectives (for a review, see Colquitt, Greenberg, & Zapata-Phelan, 2005). Mostly, theory and research have discussed and examined multiple types of fairness, such as distributive fairness (i.e., the perceived fairness of outcomes individuals receive from authorities), procedural fairness (i.e., the perceived fairness of the procedures authorities use to arrive at outcomes), and interactional fairness (i.e., the perceived fairness of the interpersonal treatment one receives from authorities). Recently, Cropanzano and Ambrose (2001; see also Ambrose & Arnaud, 2005) suggested another perspective, examining fairness as a monistic construct. According to the monistic approach, distributions, procedures, and interpersonal fairness all represent outcomes that are not mutually exclusive and occur simultaneously. For example, receiving less respectful treatment than another person violates the procedural justice rule of consistency (Leventhal, 1980), the distributive justice rule of equality, and the principles of interactional justice (Bies & Moag, 1986). However, in envy contexts, the person concerned will view this less respectful treatment as a disadvantage in and of itself. To the extent that the person views respectful treatment as important for his or her self-concept, and to the extent that the comparison other is similar enough, the person might also experience envy because of this differential treatment.

The monistic approach is particularly suitable to the study of envy and unfairness because envy can be experienced regardless of the type of unfairness perceived. All that is necessary for envy to occur is an unfavorable social comparison with another person regarding something that is important to a person's sense of self. Indeed, although some researchers examining fairness and envy have focused on outcomes such as promotion (Schaubroeck & Lam, 2004) or grades (Lieblich, 1971), theories of envy have not differentiated between various foci of unfairness. Rather, they have referred to inferiority in lots (Heider, 1958), the other's good fortune (Ben-Ze'ev, 1992; Smith, 1991), or one's disadvantage relative to a comparison other (Smith, Parrott, Ozer, & Moniz, 1994), and when discussing unfairness, they have referred to unfair treatment by the envied other and relative deprivation (Ben-Ze'ev, 1992). This lack of differentiation among various unfairness types is complemented by the monistic approach.

The fact that both envy and unfairness perceptions involve social comparisons and frequently co-occur (e.g., Ben-Ze'ev, 1992; Smith, 1991) has led to a discussion (e.g., Salovey & Rodin, 1984; Schoeck, 1969; Smith, 1991) and an empirical examination (e.g., Lieblich, 1971; Schaubroeck & Lam, 2004) of their relationship. Some researchers have hypothesized that regardless of fairness perceptions, envy can occur in any situation in which an individual feels negatively about his or her inferior position relative to a comparison other (Ben-Ze'ev, 1992; Feather & Sherman, 2002; Heider, 1958; Smith et al., 1994). For example, a person

might experience envy due to a coworker receiving a corner office, even though the coworker deserved this prestigious office and the allocation of the office was fair and in accordance with company regulations. In this case, the person experiences envy because the coworker received something the person wanted for him- or herself, regardless of the fact that the person might have perceived the situation to be fair. However, even if the person perceived that the corner office had been received in an unfair way (e.g., as part of an employment package), the person would still experience envy toward the coworker, because the coworker received something that the person wanted for him- or herself (cf. Rawls, 1971). Moreover, perceived unfairness might itself become a source of envy-provoking disadvantage experienced by a person. In this case, the person experiencing unfair treatment might infer that he or she is not a valued member of the organization (Lind & Tyler, 1988) in comparison with another person who receives fair or better treatment. Thus, at times, perceived unfairness might be an independent cause of envy. At other times, when an advantage of another has been achieved in an unfair way, perceived unfairness might augment feelings of envy because the person has two reasons to be envious: the original envy-provoking disadvantage (e.g., the better office space) and the disadvantaging treatment or procedure the person received while getting the lesser office. In this case, perceived unfairness might add insult to injury.

The few empirical studies examining the relationship between envy and unfairness (e.g., Lieblich, 1971; Smith et al., 1994) have shown that envy is higher when the situation is unfair. However, the relationship between envy and unfairness is usually modest (rs ranging from .10 [Feather & Sherman, 2002] to .66 [Schaubroeck & Lam, 2004]), and previous research (Cohen-Charash, 2005, Study 1) has found that although positively related, envy and unfairness are different constructs. Hence, envy can occur in the presence, as well as in the absence, of perceived unfairness.

Envy, Unfairness, and Interpersonal Counterproductive Work Behavior

Research has identified perceived unfairness as one important determinant of a wide array of counterproductive work behaviors, and it has generally shown that some individuals might react negatively to perceived unfair events in their organizations (Cohen-Charash & Spector, 2001). Negative reactions to unfairness include behaviors such as retaliation (e.g., Blader, Chang, & Tyler, 2001; Skarlicki & Folger, 1997), revenge (e.g., Bies & Tripp, 2001), sabotage (e.g., Ambrose, Seabright, & Schminke, 2002), theft (J. Greenberg, 1993), aggression (e.g., Folger & Skarlicki, 1998), and counterproductive work behaviors (e.g., Fox, Spector, & Miles, 2001; Lim, 2002). Two potentially fruitful theoretical frameworks that might explain associations among envy, unfairness, and harming behaviors directed toward envied others are the social exchange framework and the attribution model of fairness.

The Social Exchange Perspective

Social exchange casts a broad perspective on relationships and behaviors, viewing relationships as generally characterized by the exchange of tangible (e.g., time at work) or intangible (e.g., gossip; for review, see Cropanzano & Mitchell, 2005; Homans, 1961)

resources. The assumption that relationships between two entities are characterized by the reciprocal exchange of resources explains fairness perceptions such that in fair situations, employees (or organizations) contribute resources to the organization (or to the employee), and the organization (or the employee) reciprocates by rewarding employees (or organizations) in accordance with their contribution (Homans, 1961; Leventhal, 1976). Hence, norms of reciprocity dictate that if employees receive fewer resources from the organization than they believe their performance warrants, perceived unfairness should result and, thereby, prompt employees to engage in behaviors to restore fairness (e.g., harming the organization; Cropanzano & Mitchell, 2005). For example, if employees note that coworkers received better outcomes for similar performance, they will perceive this situation as unfair and may harm the source of the perceived unfairness, be it the organization (e.g., stealing, lateness, organizational counterproductive work behaviors; J. Greenberg & Scott, 1996), a supervisor (e.g., interpersonal harming behavior; Cropanzano, Prehar, & Chen, 2002; Masterson, Lewis-McClear, Goldman, & Taylor, 2000), or a peer (e.g., gossiping and spreading rumors; L. Greenberg & Barling, 1999).

Whereas in the context of unfair situations, social exchanges usually occur between employees and their organization and/or supervisor, when an unfair situation is accompanied by envy, there is an additional party to the exchange relationship—the envied person. In these cases, the envious person may direct harming behaviors toward the perceived cause of the unfairness (e.g., the organization, the supervisor, or the other employee) but also toward the source of perceived inferiority—the envied person. This harming behavior will not only achieve the goals of affect regulation, gap reduction, and sense-of-self-protection, it will also serve as a social exchange mechanism to reciprocate harm to the envied, who is perceived as causing harm to the envious person. Specifically, the experience of envy makes the unfairness and the harming interpersonally focused. This is because in the envious person's mind, the envied person is blamed for his or her advantage, even if the advantage and/or the unfairness was caused by the organization or the supervisor (for discussion of subjective injustice beliefs, see Smith et al., 1994). This line of reasoning is consistent with models of workplace aggression (O'Leary-Kelly, Griffin, & Glew, 1996), according to which employees can direct aggression at any convenient target, not necessarily the party responsible for their frustration. Furthermore, research has shown that under certain conditions, employees harm coworkers in response to procedural injustice (L. Greenberg & Barling, 1999), that employee conflict with coworkers results in both organizational and personal counterproductive work behaviors (Bruk-Lee & Spector, 2006; Fox et al., 2001), and that interactional injustice results in both organizational and interpersonal deviance (Aquino, Lewis, & Bradfield, 1999). Hence, harming the envied other is a direct social exchange with the other as the culprit party in the envious person's unfair, inferior situation. This same harming behavior may also serve to harm indirectly the unfair organization or supervisor, because eventually harming the envied other may affect the performance of the organization and the morale and performance of the work group (Cohen-Charash, 2005, Study 3; Duffy & Shaw, 2000).

Perceived unfairness may also interact with envy to increase the levels of harming behavior. Specifically, Smith et al. (1994) found that injustice perceptions lead to hostile feelings in the envious and that perceptions of inferiority lead to greater feelings of depression in the envious. Thus, it may be that when a person perceives that an envied other achieves superiority in an unfair manner (regardless of the source of unfairness), this perceived unfairness unleashes hostility in the envious person and leads to a higher level of harming. Alternatively, when a person perceives that an envied other achieves superiority in a fair manner, this perceived fairness leads to perceptions of greater inferiority and resulting depression (Smith et al., 1994), a state long associated with inaction and lower levels of aggression (Kasch, Rottenberg, Arnow, & Gotlib, 2002).

In sum, in the social exchange model of harming reactions to envy, unfair situations might increase harming behaviors toward another person in four fundamental ways. First, the experience of envy in unfair situations will activate the need for individuals to harm more to maintain reciprocal fairness norms (J. Greenberg & Scott, 1996; Leventhal, 1976) and equate their lots with those of envied others (Heider, 1958). Second, unfairness perceptions constitute an additional negative, inferiority-provoking, and self-concept-harming experience, because they signal that the person is not a valued member of the organization (Lind & Tyler, 1988), thereby increasing harming behaviors by the person to reduce the threat to self. Third, unfairness can exacerbate negative reactions to envy by serving to increase the envious person's negative emotional state (Mikula, Scherer, & Athenstaedt, 1998) and stress levels (J. Greenberg, 2004) and, thereby, increase harming behavior toward the envied other with the goal of regulating the negative emotional reaction (Spector & Fox, 2005). Fourth, unfairness might unleash the hostile aspect of envy, resulting in stronger harming behaviors directed at the envied other (Smith et al. 1994). On the basis of the above rationale, we hypothesize an interaction between envy and unfairness such that envy positively relates to harming behavior when unfairness is high, but not when unfairness is low (Hypothesis 1).

Attribution Model of Fairness

A different theoretical rationale may lead to the opposite hypothesis—namely, that low levels of unfairness (i.e., high levels of fairness) will exacerbate interpersonal counterproductive work behaviors in reaction to envy. This hypothesis is based on the attribution model of fairness, according to which perceptions of fairness influence the attributions people make regarding their own ability. Specifically, the experience of envy threatens and diminishes a person's self-perception (Parrott & Smith, 1993; Silver & Sabini, 1978a), because it amounts to acknowledgement of one's inferior position relative to another person. Moreover, research has shown that the experience of envy intensifies when attributions of personal failure and/or of the other's success are internal rather than external and that internal attributions are positively correlated with perceived threat to self-esteem (Mikulincer, Bizman, & Aizenberg, 1989). Therefore, envious individuals should experience more threat to self-esteem in situations in which they attribute their inferior position to an internal and stable cause (e.g., lack of ability and likeability) than they do if they attribute their inferior position to an external cause (e.g., an unfair situation).

Research has indeed shown that perceived unfairness could divert the blame for negative outcomes from one's self to an external source, such as the unfairness of the situation or the behavior of the envied person. This shift of responsibility prevents

damage to a person's sense of self (Brockner, 2002; Brockner et al., 2003; Schroth & Shah, 2000; van den Bos, Bruins, Wilke, & Dronkert, 1999). Hence, experiencing envy in response to a situation in which the envy-evoking event was fair may pose a greater threat to state self-esteem. Such threat to self-esteem may provoke undesirable reactions, such as being antagonistic (Heatherton & Vohs, 2000) and behaving aggressively (Esposito, Kobak, & Little, 2005). In fact, recently, Barclay, Skarlicki, and Pugh (2005) showed that employees retaliate against others when procedural and interactional fairness are high but not when they are low, hence supporting the attribution model. Thus, we hypothesize an interaction between envy and unfairness such that envy positively relates to harming behavior when unfairness is low (fair conditions) but not when unfairness is high (Hypothesis 2). We examined the above hypotheses in Study 1.

Study 1

Method

Participants

Study participants were 188 employed individuals taking courses in a large eastern university, participating for course credit. Roughly half of the participants were men (50.5%), and the mean age was 21.03 years ($SD = 3.73$). Whereas 20% of the participants were employed in full-time positions, 78% were employed in part-time and temporary positions, and 2% were not employed. Employment status did not affect the correlations between the substantive variables. Participants received course credit for taking part in the study and were treated according to APA ethical guidelines. Specifically, participants read an informed consent form (but, to preserve their anonymity, were asked not to sign it) and received a debriefing once they completed the study.

Envy Stimulus

To elicit episodic envy, we presented participants with the following instructions:

> Choose a person in your organization with whom you *work frequently* and to whom you *constantly compare yourself*. This person should be *perceived by you* as *more successful than yourself* at gaining *things that you strive for* and that are *very important to your self-worth*.

These particular instructions were based on the literature on the elicitation of envy (e.g., Heider, 1958; Salovey, 1991). Participants did not know that the study was about envy, because the word *envy* was not mentioned in this part of the study.

Measures

Episodic envy. Envy was measured using a 9-item scale (Cohen-Charash, 2005; Cronbach's α [in this sample] = .81). Participants were asked to rate each item on the extent to which it accurately described their emotions toward the comparison other. Items were as follows: "I lack some of the things X has," "I feel bitter," "I feel envious," "I have a grudge (*resentment, bitterness*) against X," "I want to have what X has," "X has things going for him/her better than I do," "I feel gall (*irritated, annoyed*)," "I feel some hatred toward X," and

"I feel rancor (*resentment, ill will*) toward X." The rating scale ranged from 1 (*not characteristic at all*) to 9 (*extremely characteristic*).

Interpersonal counterproductive work behavior (harming). Participants rated the extent to which they engaged in these behaviors on a 12-item scale (Cohen-Charash, 2005; Cronbach's α [in this sample] = .87), adapted from the Counterproductive Work Behavior Scale created by Fox and Spector (1999). We used the portion of this measure that explicitly examines the two types of interpersonal counterproductive work behaviors—namely, political deviance and personal aggression (Robinson & Bennett, 1995)—and added to it items that seemed to be particularly relevant to the envy situation. The items were as follows: "interfere with X's performance," "try to sabotage X's reputation," "withhold work related information from X," "create coalitions against X," "start an argument with X," "backstab X," "blow the whistle on X," "be nasty to X," "provide incorrect information to mislead X," "slow down all correspondence to X," "talk to others about the bad nature of X," and "look at X with disrespect." Participants were asked to rate each item on the extent to which it accurately represented actions they took toward the comparison other, using a rating scale ranging from 1 (*not representative at all*) to 5 (*very representative*).

Perceived unfairness. Perceived unfairness was examined using Smith et al.'s (1994) Objective Injustice Beliefs Scale (α = .82). The three items of the scale are (a) "An objective judge who knows the facts would agree that X did not deserve to succeed at work," (b) "Anyone would agree that X's advantage was unfairly obtained," and (c) "X achieved the advantage over me through undeniably unjust actions or unjust procedures." Items were rated on the degree to which they characterized the perceptions of the situation by the participant.[1] The rating scale ranged from 1 (*not characteristic at all*) to 9 (*extremely characteristic*).

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[1] Smith et al.'s (1994) objective unfairness measure was developed specifically to assess unfairness in envy situations. It also operationalizes the monistic view of fairness (Cropanzano & Ambrose, 2001) used in this study because it examines overall unfairness perceptions, unrelated to a particular type of unfairness. To examine our assumption that in the context of envy, all types of unfairness should similarly relate to the objective unfairness measure (and as was suggested by an anonymous reviewer), we examined the relationships between the Smith et al. (1994) measure and the Colquitt (2001) fairness measure. We collected data from 349 undergraduate participants at two major East Coast universities (in one university, participants received course credit, and in the other they received $10 for their participation; in both cases, APA ethical guidelines were adhered to). We used the same stimulus used by Colquitt (2001) in his original validation study, modifying it slightly to accommodate an envy situation. Specifically, we asked participants to "think about a course you took last semester where another person received a *better* grade than you. With this information in mind, we would like you to answer the following questions." We then administered the two fairness measures (changing the order of presentation to prevent order effects). Our findings showed the following correlations between the two measures: procedural justice: $r = .33$, $p < .01$; distributive justice: $r = .27$, $p < .01$; interpersonal justice: $r = .36$, $p < .01$; and informational justice: $r = .39$, $p < .01$. To examine whether the differences between these correlations were significant, we used Fisher's Z transformations but found no significant differences between any of the Pearson correlation coefficients presented above, hence showing that the Smith et al. (1994) measure equally captures the various types of justice examined by the Colquitt (2001) measure.

Social desirability. Because of the self-demeaning nature of the envy construct and of harming behaviors, social desirability was measured as a control variable. The 13-item true–false scale (Reynolds, 1982) consists of statements that were either true or false for the respondent (α = .71; sample item: "I am always willing to admit when I make a mistake"). Scale scores ranged in value from 13 to 26, with a score of 13 representing no social desirability.

Dispositional envy. Dispositional envy served as another control variable and was measured with the 8-item Dispositional Envy Scale (Smith, Parrott, Diener, Hoyle, & Kim, 1999; α = .89; sample item: "I feel envy every day"). Participants rated each item on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Results

Table 1 shows the means, standard deviations, and correlations for all study variables. It shows that social desirability and dispositional envy significantly correlated with all major variables included in our analyses; hence, we controlled for both social desirability and dispositional envy in our models. Pearson correlation coefficients show a significant positive relationship between envy and interpersonal counterproductive work behaviors (r = .41, $p <$ .001) and a significant positive relationship between perceived unfairness and interpersonal counterproductive work behaviors (r = .51, $p <$ .001).

To examine our two competing hypotheses—that is, that high levels of perceived unfairness magnify the degree to which envious individuals engage in harming behaviors toward the envied person (Hypothesis 1) and that low levels of perceived unfairness magnify the extent to which envious individuals engage in harming behaviors toward the envied person (Hypothesis 2)—we centered the variables forming the interactions between envy and perceived unfairness to minimize multicollinearity among the interactions and their individual components (Aiken & West, 1991). The results of the regression analyses with respect to our hypotheses are shown in Models 1–3 of Table 2.

As shown in Table 2, Model 2, the set of the main effects of envy and perceived unfairness accounted for a significant amount of variance in harming behaviors (ΔR^2 = .14, $p <$ .01). Table 2, Model 3 shows that these main effects were qualified by the presence of a significant two-way interaction (Aiken & West, 1991), which accounted for a significant amount of additional variance in interpersonal counterproductive work behaviors (ΔR^2 = .03, $p <$ .01) and yielded a significant regression weight (B = 0.02, $p <$ .01). Although the effect size for the interaction term is considered small (Cohen, 1988), such an effect size is normative when testing interactions (Aguinis, Beaty, Boik, & Pierce, 2005).

We explored the form of the significant two-way interaction shown in Table 2, Model 3, as recommended by Aiken and West (1991). First, we plotted the form of the interaction (shown in Figure 1). We calculated the simple slopes of interpersonal counterproductive work behaviors on episodic envy and their standard errors at three levels (i.e., mean, 1 standard deviation above the mean, and 1 standard deviation below the mean) of perceived unfairness, as suggested by Cohen and Cohen (1983). Next, we conducted *t* tests on the values of the simple slopes divided by their standard errors. Table 3 shows these results and indicates that the simple slopes (showing the magnitude of relationship between envy and harming behaviors) are significant at the highest and mean levels of perceived unfairness but not at the lowest levels of perceived unfairness. The simple slope can be interpreted as follows: For high levels of perceived unfairness, the amount of harming behaviors increases 0.07 for each additional unit increase in envy. Hence, this shows support for Hypothesis 1, which predicted that perceived unfairness exacerbates the negative influence of envy on harming behaviors. Support is not shown for the competing Hypothesis 2, according to which perceived fairness exacerbates the negative influence of envy. It is interesting to note that there is also no evidence shown that perceived fairness mitigates the negative influence of envy, because we found that for low levels of unfairness (i.e., under fair conditions), the relationship between envy and harming behaviors was not significant.

Discussion

Our results for Study 1 provide support for the exchange model of fairness, showing that when perceived unfairness is moderate or high (as opposed to when perceived unfairness is low), high levels of envy are related with higher levels of harming behavior toward the envied person. Although the attribution model of fairness would purport that the experience of envy might pose a greater threat to self-esteem in fair situations and, therefore, lead to higher levels of harming behavior in fair situations as opposed to unfair situations, our data did not support this prediction. Hence, according to the results of Study 1, when envy is experienced in unfair situations, negative reactions to it are augmented. These results are particularly important given that our envy-eliciting method did not actually include the word *envy* in the instructions. This makes the elicitation method conservative, because when comparing themselves with others who are doing better, individuals do not necessarily experience envy. Instead, under some circumstances, they can also experience happiness for the other's better fortune (e.g., Ben-Ze'ev, 2000; Heider, 1958); the stimulus used in Study 1 did not offer any protection against this possibility.

Table 1
Means, Standard Deviations, and Correlations Among All Study Variables (Study 1)

Variable	M	SD	1	2	3	4	5
1. Social desirability	19.72	3.11	(.71)				
2. Dispositional envy	1.81	0.77	−.35	(.89)			
3. Perceived unfairness	2.72	1.77	−.24	.29	(.82)		
4. Episodic envy	5.64	3.45	−.33	.51	.29	(.81)	
5. Harming behavior	1.39	0.54	−.35	.40	.51	.41	(.87)

Note. N = 188. Cronbach's α reliabilities for the scales are shown along the diagonal. All correlations are significant at the $p <$ .05 level.

Table 2

Results of Hierarchical Regression Analysis Predicting the Criterion Variable of Interpersonal Counterproductive Work Behavior (Study 1)

Variable	Model 1 (Step 1: Controls)	Model 2 (Step 2: Main effects)	Model 3 (Step 3: Two-way interaction)
Constant	1.70***	1.62***	1.54***
Controls			
Social desirability	−0.04**	−0.03*	−0.02*
Dispositional envy	0.24***	0.15**	0.16**
Main effects			
Episodic envy		0.02	0.02
Perceived unfairness		0.11***	0.09***
Two-way interaction			
Envy × Unfairness			0.02**
R^2	.22***	.36***	.39***
ΔR^2	.22***	.14***	.03**

Note. $N = 188$. Values are unstandardized betas.
* $p \le .05$. ** $p \le .01$. *** $p \le .001$.

However, before concluding that the social exchange perspective is superior to the attribution model of fairness in the context of reactions to envy, we wanted to examine the models using an additional possible moderator of the relationship among envy, unfairness, and harming behaviors: trait self-esteem (hereafter referred to as *self-esteem*). This is because the self-esteem literature refers to high self-esteem as leading to aggressive reactions in response to threatened egotism (Baumeister et al., 1996), the envy
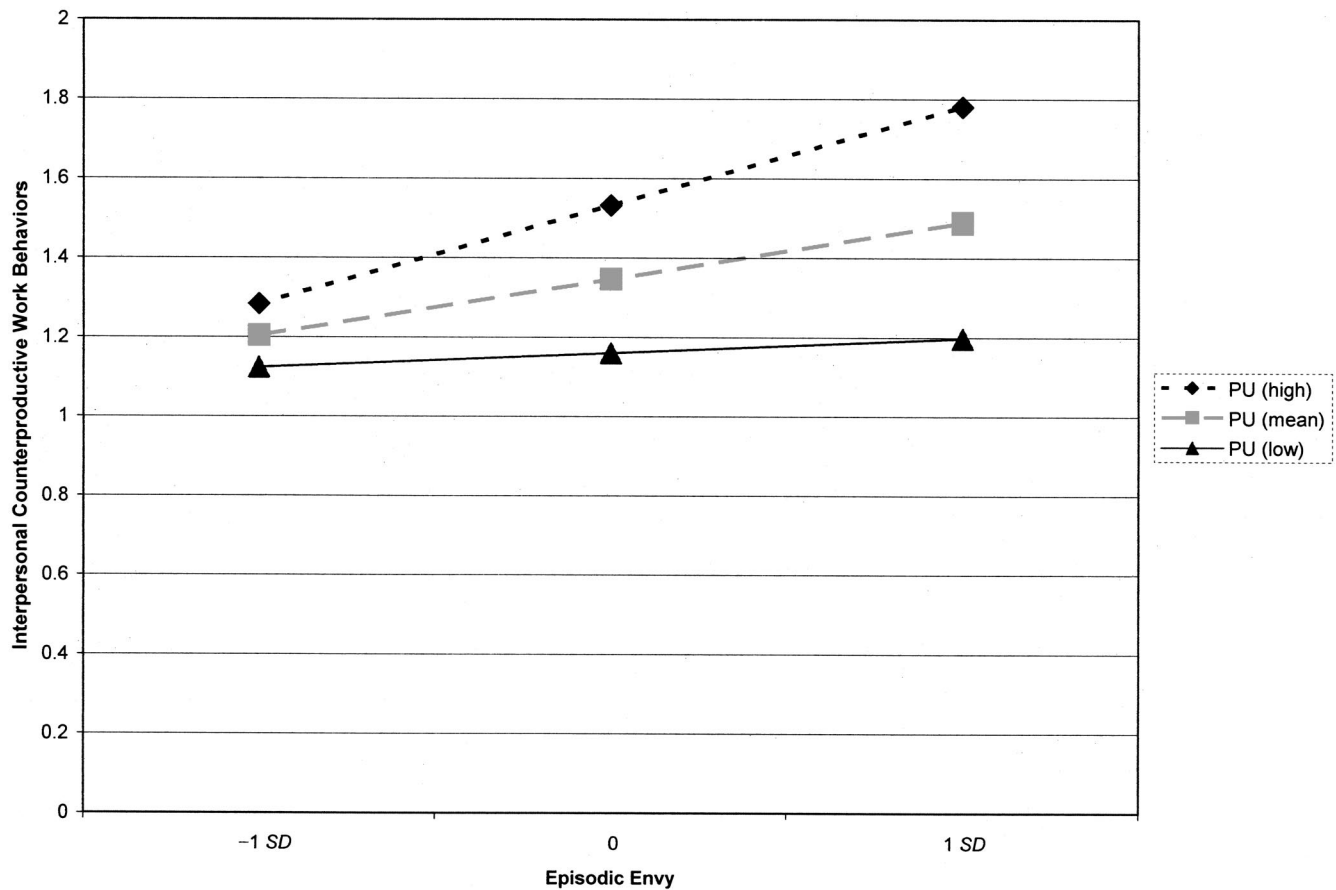

Figure 1. Interaction between perceived unfairness (PU) and episodic envy predicting interpersonal counterproductive work behaviors in Study 1.

Table 3
Results of Standard Error and t Tests for Simple Slopes of Two-Way Interactions Including Episodic Envy and Perceived Unfairness (Study 1)

Perceived unfairness	Interpersonal counterproductive work behavior		
	Simple slope	SE	t(66)
High	0.07	0.03	2.60***
Mean	0.04	0.02	1.90**
Low	0.01	0.02	0.49

** $p \leq .01$. *** $p \leq .001$.

literature refers to self-esteem as affecting reactions to envy (Barth, 1988), and the fairness literature refers to self-esteem as affecting reaction to perceived fairness and unfairness (e.g., Brockner, 1985; Brockner et al., 1998; Burton, Mitchell, & Lee, 2005). Thus, self-esteem is relevant to reactions to fairness, reactions to envy, and harming behaviors.

Moreover, inclusion of self-esteem as an additional moderator may better allow us to find support for the attribution model. The attribution model suggests that threats to self-esteem are higher in fair conditions; hence, one possible reason why we found no support for the attribution model in Study 1 is that envy that is experienced in fair conditions may only prove threatening to individuals with certain levels of self-esteem. Hence, in Study 2, we also examined self-esteem, to provide a more sensitive test of the attribution model. Finally, we tested our hypotheses on a different sample, using a different envy-elicitation method to make sure that our results generalize across different samples and envy-elicitation methods.

Study 2

Self-Esteem, Envy, and Harming Behaviors

Although researchers have proposed that a relationship between self-esteem and reactions to envy exists (Barth, 1988), we are currently unaware of any studies directly examining this possibility. However, because envy is considered to pose a threat to one's self-perception, we can use literature on reaction to threatened egotism as a reference point for our study of reactions to envy. Whereas the common belief is that low self-esteem individuals tend to aggress against others when their self-perception is threatened (Oates & Forrest, 1985), there is very little research that supports this assertion, and more research supports the opposite conclusion that high self-esteem individuals are those who react with violence to threatened egotism (for a review, see Baumeister et al., 1996). According to Baumeister et al., the relationship between threatened self-esteem and violence is mediated by negative emotions. Specifically, these authors asserted that when individuals agree with negative feedback about themselves, they experience emotions such as sadness, anxiety, and dejection. However, when individuals reject negative feedback about themselves, they experience anger toward the source of the negative evaluation and tend to aggress against them. Baumeister et al. further hypothesized that high self-esteem individuals will be more sensitive to information that disconfirms their superiority than will low self-

esteem individuals. Hence, high self-esteem individuals have a higher likelihood of reacting with hostility to negative feedback. Because envy may pose strong threats to individuals' self-esteem (e.g., Salovey & Rodin, 1991; Silver & Sabini, 1978a), and high self-esteem individuals are more sensitive to, and likely to react with anger and aggression in response to, such threats (envy is considered to belong to the anger family of emotions; Shaver, Schwartz, Kirson, & O'Connor, 1987), high self-esteem individuals may engage in greater amounts of harming behaviors against envied others when experiencing envy.

Self-Esteem, Perceived Unfairness, Envy, and Harming Behaviors

The few studies that have examined the influence of self-esteem on justice perceptions and on reactions to justice perceptions have usually found that individuals with high self-esteem value fairness and react to it more than do individuals low in self-esteem. Specifically, it has been found that high self-esteem individuals, but not low self-esteem individuals, experience more trust, motivation, satisfaction, and organizational identification when they have the opportunity to have their voice heard (e.g., high procedural justice; Brockner et al., 1998). Brockner et al. (1998) hypothesized that high procedural justice allows high self-esteem individuals to display their true self-worth. Similarly, Heuer, Blumenthal, Douglas, and Weinblatt (1999) found a stronger relationship between getting respect and perceiving fairness among high self-esteem individuals than among low self-esteem individuals and explained these findings by saying that high self-esteem individuals believe they deserve respectful treatment and, hence, are more sensitive to unfair treatment.[2] Thus, perceived unfairness might exacerbate the tendency of high self-esteem individuals to negatively react to envy, and we hypothesize an interaction among envy, perceived unfairness, and self-esteem such that the relationship between envy and harming are positive when self-esteem and perceived unfairness are high but not when self-esteem and perceived unfairness are low (Hypothesis 3).

Although Hypothesis 3 is consistent with the social exchange model of fairness, the attribution model of fairness will lead to different predictions. According to the attribution model, perceived unfairness might act as a buffer against the negative implications of unfavorable comparisons for individuals' self-concept. This is because perceived unfairness leads individuals to blame the other for their own relative inferiority, and hence, it should not harm or pose a threat to an individual's self-concept (e.g., Brockner et al., 2003). Hence, the attribution model would predict an interaction among self-esteem, envy, and unfairness such that the relationship between envy and harming are positive when self-esteem is high and perceived unfairness is low (fairness) but not when self-esteem is high and perceived unfairness is high (Hypothesis 4). We examined these hypotheses in Study 2.

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[2] Some research has found that individuals who experience low levels of self-esteem care more about and react more to procedural injustice. However, these studies have conceptualized self-esteem as a state variable (De Cremer, 2003; Vermunt, van Knippenberg, van Knippenberg, & Blaauw, 2001) and, therefore, are not necessarily theoretically relevant to our consideration of trait self-esteem in the current investigation.

Method

Participants

Study participants were 72 individuals from various industries, organizations, organizational levels, professions, and geographical regions in the United States. They were recruited by contact persons (not the researchers) in their respective organizations or in MBA classes. A slight majority of the participants were female (52%), and the mean age was 36.00 years ($SD = 10.24$). Whereas 78.8% of the participants were employed in full-time positions, 9.9% were employed in part-time positions, 1.4% were employed in temporary/seasonal jobs, 1.4% were self-employed, and 8.5% were unemployed. Results showed no differences between the employed and unemployed individuals on envy, unfairness, or harming. Participants came from a wide variety of professions and industries, such as the financial (20%), manufacturing (13%), retail (10%), health care (9%), legal (7%), government (6%), and consulting (6%) industries. The remaining participants came from industries such as telecommunications, software, and real estate, among others. Participants' mean tenure in their current position was 2.50 years ($SD = 1.28$), and their median salary ranged from $40,000 to $50,000. Participants were eligible to take part in a raffle for a $100 prize as a compensation for their participation in the study. To preserve their anonymity, participants received in their questionnaire packet a consent form and a self-addressed stamped postcard on which they were asked to write their contact information and which entered them in the raffle. Participants completed the study at a time and place of their choosing and mailed their questionnaires back in self-addressed stamped envelopes. They were treated according to APA ethical guidelines, including reading an informed consent statement. Because participants did not complete their questionnaires at a lab, it was impossible to debrief them immediately after they completed the study. However, participants were encouraged to contact Yochi Cohen-Charash for more information about the study and its outcomes.

Envy Stimulus

Participants were asked to describe an incident of workplace envy they had personally experienced. The specific instructions were as follows:

> Some of the emotions people experience at work are unpleasant. We now want you to focus on one such possibly unpleasant experience: Envy. *Envy is what you may feel in situations in which you desire something another has and you do not have.* Please recall and describe the most envious experience you have ever had *at work*. Please limit yourself *only* to a situation in which *you* were envious of another person. Please describe: 1. What led to the envious situation; 2. What you felt; 3. How you reacted to the experience; 4. The person you were envious of.

Referring to this incident, participants then completed the measures of interest in this study.

Measures

Episodic envy, harming the other person, perceived unfairness, social desirability, and dispositional envy were measured with the same measures used in Study 1. Cronbach's alpha of all measures appear in Table 4.

Global self-esteem was measured with Rosenberg's (1965) Self-Esteem Scale, which consists of 10 items measuring, for example, participants' feelings of being of equal worth relative to others and of possessing numerous good qualities. Participants rated the items on a 4-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*).

Results

Table 4 shows the means, standard deviations, and correlations for all study variables. We controlled for social desirability and dispositional envy in all analyses because both correlated with at least one major variable in the analysis. We replicated our findings from Study 1, showing that envy ($r = .46$, $p < .001$) and perceived unfairness ($r = .31$, $p < .01$) both correlated significantly with harming behaviors.

We conducted hierarchical regression analyses to test the hypotheses that perceived unfairness, episodic envy, and self-esteem all interact to influence engagement in harming behaviors. As in Study 1, we centered the variables forming the interactions to minimize multicollinearity (Aiken & West, 1991). The results of the regression analyses are shown in Table 5. Although the regression coefficient on Step 3 of the analysis was not significant ($B = -0.01$, $p < .10$), we examined the form of the interaction and found that it replicated the exact pattern found in Study 1. Specifically, the slope between envy and harming behaviors was significant for high and mean levels of perceived unfairness but nonsignificant for low levels of perceived unfairness.

However, Step 4 of our analysis showed that a three-way interaction qualifies our two-way interactions such that envy and perceived unfairness relate to harming behaviors only at certain values of self-esteem ($B = 0.02$, $p < .05$). Furthermore, the three-way interaction accounted for a significant amount of the variance predicting harming behavior ($\Delta R^2 = .05$, $p < .05$). Although this effect size is considered small (Cohen, 1988), it is normative for interaction testing (Aguinis et al., 2005). To examine the pattern of the interaction, we plotted the form of the three-way interaction (shown in Figure 2) and explored the form by generating simple slopes, as recommended by Aiken and West (1991). We calculated the simple slopes of harming behaviors on envy and their standard errors at two levels (i.e., 1 standard deviation above and 1 standard deviation below the mean) of the second and third predictors (i.e., perceived unfairness and self-esteem). We then conducted t tests on the values of the simple slopes divided by the standard errors. The results of these analyses are shown in Table 6 and illustrated in Figure 2. These results indicate that the positive relationship between envy and harming behaviors was only significant when both perceived unfairness and self-esteem were high. The relationship between envy and harming behaviors was not significant for any other value of self-esteem and perceived unfairness. Hence, we found support for Hypothesis 3, according to which the relationship between envy and harming behaviors is only significant and positive when both self-esteem and unfairness perceptions are high. We found no support for the competing Hypothesis 4, according to which the interaction between high self-esteem and low unfairness (i.e., fairness) contributes to a positive association between envy and harming behaviors.

Table 4
Means, Standard Deviations, and Correlations Among All Study Variables (Study 2)

Variable	M	SD	1	2	3	4	5	6
1. Social desirability	20.01	2.80	(.72)					
2. Dispositional envy	1.68	0.65	−.27*	(.89)				
3. Perceived unfairness	4.40	2.36	−.04	−.08	(.85)			
4. Episodic envy	8.41	4.16	−.11	.24*	.41***	(.81)		
5. Self-esteem	4.23	0.62	.32**	−.75***	.08	−.13	(.86)	
6. Harming behaviors	1.43	0.56	−.19	.31**	.31**	.46***	−.15	(.90)

Note. $N = 72$. Cronbach's α reliabilities for the scales are shown along the diagonal.
* $p \le .05$.   ** $p \le .01$.   *** $p \le .001$.

Discussion

The present results replicate our findings from Study 1, showing support for the exchange model of fairness in organizations and demonstrating that envious people will tend to engage in interpersonal counterproductive work behaviors (harming behaviors) toward others when they experience high levels of envy in unfair situations. By examining self-esteem as an additional moderator of the relationship among envy, unfairness, and harming behaviors, we extended our findings from Study 1 to show that high self-esteem further exacerbates the negative interaction between high levels of unfairness and envy. Specifically, high self-esteem individuals are more likely to harm envied others in unfair situations. Moreover, we found no support for the attribution model, which states that high self-esteem individuals experiencing envy will harm others in fair situations because these situations present a greater threat to self-esteem and stimulate greater motivation to equate the lots between the individual and the envied other. Although our inclusion of self-esteem as an additional moderator allowed us to better examine the attribution model of fairness, in which self-esteem is a major component, we still did not find

support for the attribution model, thus replicating our results from Study 1.

General Discussion

The present research is the first to show how episodic envy, unfairness, and self-esteem interact to predict interpersonal counterproductive work behaviors. Our findings support the social exchange perspective of fairness in organizations, which is particularly appropriate in the current context because social exchanges can explain both reactions to unfairness and reactions to envy. According to social exchange models, one major reason to engage in harming behaviors is to restore fairness (e.g., Cropanzano & Mitchell, 2005; Homans, 1961; Leventhal, 1976). That is, when employees perceive they have been treated unfairly, they may respond by harming the organization and their supervisors in various ways.

Moreover, the social exchange framework is also appropriate for examining harming reactions to envy as a way of equating lots with the other. Heider (1958) emphasized the need to equate the fortunes of the envied and the envious as the major goal of the

Table 5
Results of Hierarchical Regression Analysis Predicting Interpersonal Counterproductive Work Behaviors (Study 2)

Variable	Step 1: Controls	Step 2: Main effects	Step 3: Two-way interactions	Step 4: Three-way interactions
Constant	1.50**	1.38**	1.31*	1.50**
Controls				
Social desirability	−0.03	−0.02	−0.02	−0.03
Dispositional envy	0.24*	0.29*	0.32*	0.30*
Main effects				
Episodic envy		0.04**	0.05**	0.03*
Perceived unfairness		0.04	0.04	0.05*
Global self-esteem		0.14	0.16	0.00
Two-way interactions				
Envy × Unfairness			−0.01†	−0.01
Unfairness × Self-Esteem			−0.05	−0.02
Envy × Self-Esteem			−0.01	0.03
Three-way interaction				
Envy × Unfairness × Self-Esteem				0.02*
R^2	.11	.30	.35	.40
ΔR^2	.11*	.19**	.04	.05*

Note. $N = 72$. Values are unstandardized betas.
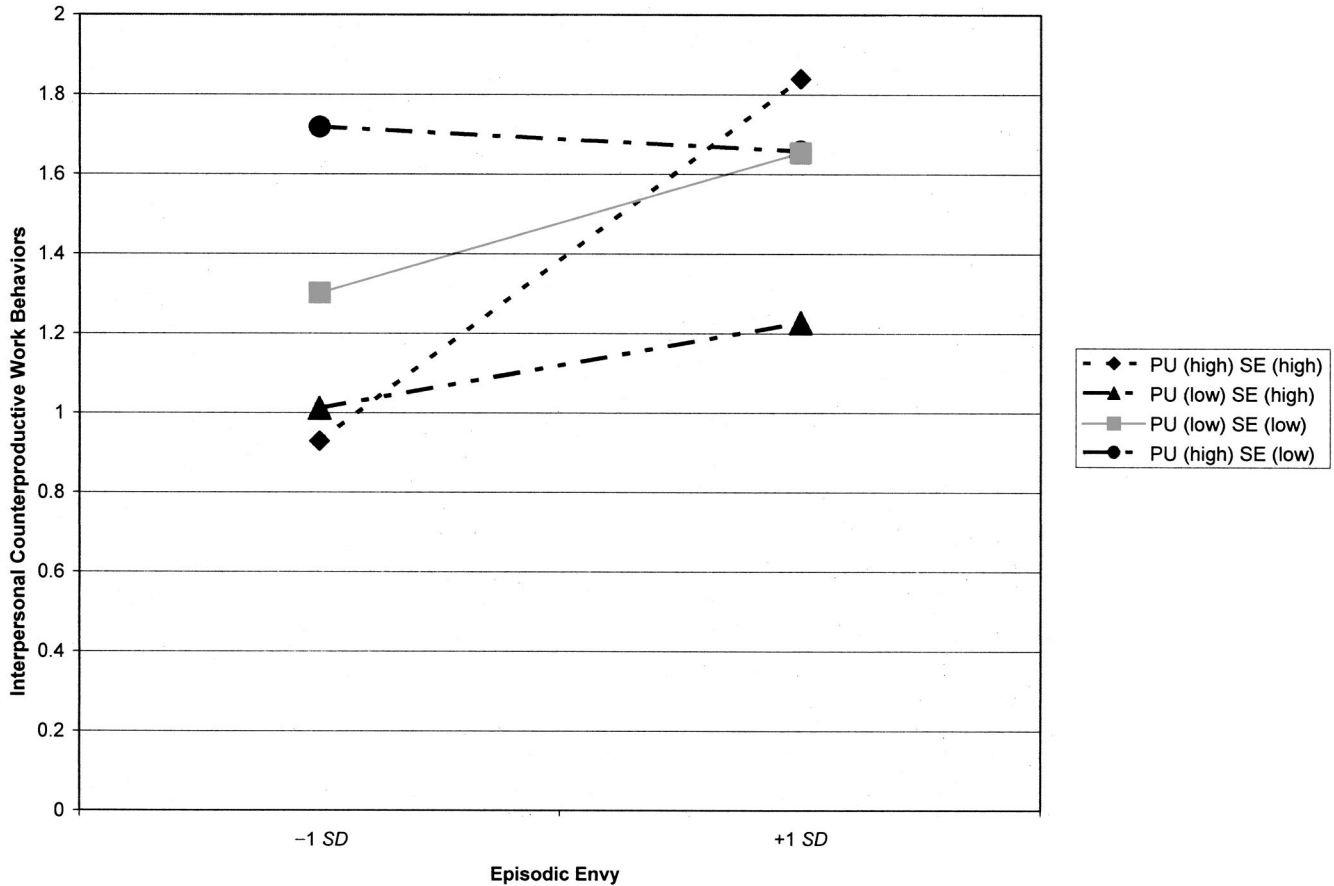† $p \le .10$.   * $p \le .05$.   ** $p \le .01$.

Figure 2. Interaction between perceived unfairness (PU), self-esteem (SE), and episodic envy predicting interpersonal counterproductive work behaviors in Study 2.

envious person. Specifically, workplace envy occurs between two people who are usually in a social exchange relationship emerging from their common workplace, work duties, and friendship ties (Brandes, Dharwadkar, & Wheatley, 2004). If the envious person believes that the envied person is responsible for his or her inferiority (Smith et al., 1994), the envious can, in exchange, prevent future success for the envied. This can be done by engaging in harming behaviors, capitalizing on the fact that part of the work

Table 6
Results of Standard Error and t Tests for Simple Slopes of Three-Way Interactions Including Episodic Envy, Perceived Unfairness, and Global Self-Esteem (Study 2)

Perceived unfairness	Global self-esteem	Interpersonal counterproductive work behavior		
		Simple slope	SE	t(178)
Low	High	0.03	0.04	0.65
Low	Low	0.04	0.06	0.76
High	High	0.11	0.05	2.39*
High	Low	−0.01	0.04	−0.17

*p ≤ .05.

relations between the envious and the envied might involve exchange of information, help, and coordination. Interpersonal counterproductive work behaviors are targeted at harming these exact aspects of exchange with others, because they include, among other things, interference with the other's performance, withholding information from the other, providing incorrect information to the other, and slowing down all correspondence with the other. Furthermore, social exchange is about not only work-instrumental issues but also affect, trust, and friendship (Cole, Schaninger, & Harris, 2002; Homans, 1961). Therefore, harming the other's reputation, another aspect of interpersonal counterproductive work behaviors, can harm the other's performance indirectly, as well as the reputation of the other in the organization, and fits the social exchange framework.

Our results, not showing support for the attribution model of fairness, contradict other research (Barclay et al., 2005), which supports the attribution model as explaining the relationship between unfairness and harming behaviors. Specifically, Barclay et al. found that negative emotional reactions to unfairness and retaliatory behaviors resulting from these negative emotions occur when procedures and interactions are fair but not when they are unfair. There may be several reasons for these differences in results. First, although Barclay et al. examined inward- and

outward-focused negative emotions using composite scores, we examined a very specific emotion: envy. Envy may result in threat to one's self-concept, and being treated unfairly might exacerbate such a threat, because such unfair treatment means that the individual is not treated similarly to the envied other and serves as an independent cause for envy. Thus, envy is stronger when the situation is unfair rather than fair. Moreover, interpersonal counterproductive work behaviors have several goals, some of them specific to envy (i.e., reducing the gap between the envious and the envied by harming the other), which might be unrelated to internal or external attributions regarding the inferior situation of the envious person. Such conditions may not be present with other emotions studied in the literature, such as guilt, shame, anger, and hostility. Although envy, like guilt and shame, is considered to be a self-threatening interpersonal emotion (Tangney & Salovey, 1999), it is distinct and separate from these emotions (Berke, 1987). Hence, the findings of Barclay et al. regarding the joint influence of guilt and shame might not generalize to envy.

A second possible explanation for the differences between Barclay et al.'s (2005) findings and ours might relate to the conceptualization and measurement of unfairness. Whereas Barclay et al. studied procedural and interactional fairness separately, we used a monistic view of fairness (Cropanzano & Ambrose, 2001) at both the conceptual and measurement levels. We chose to use the monistic approach in these studies because it seems particularly suitable for the study of envy. This is mainly because envy is not limited to specific domains and might be experienced as a result of perceived disadvantage in outcomes, procedures, and interactions alike. Therefore, we believe that measures of unfairness should not be limited to a specific type of unfairness. Moreover, our initial validation study (see Footnote 1) showed that all fairness types measured by Colquitt (2001) equally relate to our measure of unfairness when examined in the context of envy. This being said, however, future research should examine whether the domain of the unfairness (e.g., distributive, procedural, interpersonal, informational) does indeed matter when attempting to determine when envious individuals harm others or when examining the relationship between perceived unfairness and envy.

Such examination of the various components of fairness as interacting with envy to predict harming behaviors can also serve as another opportunity to examine the applicability of the attribution model for these relations. That is, studies in which the attribution model is supported usually show procedures to be the factor determining the attribution of outcomes (Brockner et al., 2003; Schroth & Shah, 2000; van den Bos et al., 1999). Still other studies have shown that interactional fairness (Barclay et al., 2005) and distributive fairness (De Cremer, 2002) also have similar influences on attribution of responsibility. Although these results indicate that various types of fairness similarly predict attribution of responsibility under the attribution model of fairness (as the monistic approach would suggest), it is still an empirical question whether these results are applicable in the context of envy and harming. Thus, future research might find support for the attribution model by specifically examining distributive, procedural, and interactional justice as opposed to taking a monistic view of fairness as we did in the present studies.

Can Fairness Mitigate the Negative Reactions to Envy?

Because envy is ubiquitous in organizations, it is useful to determine whether fairness might mitigate negative reactions to envy. Indeed, Study 1 showed that when perceived unfairness is low, there is no relationship between envy and harming behaviors. That is, the relationship between envy and harming behaviors is only positive under conditions of medium and high levels of unfairness. Although we did not find that fair situations decrease the likelihood that envious individuals will harm the envied, we did find that fair situations are unrelated to harming behavior. Study 2 replicated this finding with an additional detail showing that only under conditions of high self-esteem and unfairness do high levels of envy relate to high levels of harming behaviors. This means that envy does not relate to harming behaviors for individuals low in self-esteem in either fairness condition, but rather, envy only relates to harming for individuals high in self-esteem who perceive the situation to be unfair. Hence, this suggests that the combination of high self-esteem and high unfairness exacerbates negative reactions to envy, whereas all other conditions are unrelated to the negative influences of envy.

Limitations, Strengths, and Implications for Future Research

One potential limitation of the current investigation is the possibility of common-method bias, resulting from the fact that all of our measures were self-reported (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, the use of self-reports in these studies is justified by the nature of the variables examined (Ellsworth, 1995; Spector, 1994). First, envy, an emotion, is an internal state that has no specific facial expression related to it. Therefore, any report on envy that does not originate in the person experiencing it might be invalid. Furthermore, we were interested in perceived, as opposed to actual, fairness. Measuring perceived unfairness can only be done using self-reports. Moreover, because many of the harming behaviors examined in these studies could be disguised as work-necessary, unintentional behaviors and could be conducted when there were no witnesses, it is very difficult and possibly inaccurate to rely on behavioral reports from third parties. Therefore, relying on self-report data to measure harming behaviors is a necessary procedure.

One potential bias resulting from the exclusive use of self-report data is that a third variable, such as social desirability, will bias research findings (e.g., Podsakoff et al., 2003). To counteract some of the possible social-desirability biases resulting from the undesirable nature of the main variables in these studies (i.e., envy and harming behaviors), we controlled for social desirability and made the questionnaires anonymous (Podsakoff et al., 2003; Spector, 2006). However, even after controlling for social desirability, we still found enough variance in our data to support repeatedly a particular set of hypotheses. This provides an even more conservative test of our hypotheses, given the undesirable nature of both envy and the reactions to it. Moreover, if common-method bias were a problem, we would expect to see significant correlations between all variables in our studies, regardless of our theoretical rationale and hypotheses (Spector, 2006). However, this was not the case. For example, Table 4 shows that only 8 out of 15 correlations were significant, and those that were significant were in the predicted direction. Finally, to examine whether common-

method variance is indeed a problem in either of our studies, we conducted the Harman single-factor test recommended by Podsakoff et al. (2003). This test assesses the extent to which measures used in a study have an extreme amount of common-method bias such that they all load on a single factor. We conducted an exploratory factor analysis on our envy, unfairness, and harming items in which three different factors emerged. Thus, according to this test, common-method variance did not account for the majority of associations between our major variables.

The second potential limitation of these studies is that they do not allow us to infer causality. However, this potential limitation is also a strength of our studies. That is, we were able to examine envy, unfairness, and reactions to them in a natural context—in this case, in the workplace rather than in the laboratory. Thus, our results allow us to have a greater ecological validity. Of course, to expand knowledge of the relationship between envy and unfairness, it is also necessary to examine experimentally the relationships among envy, unfairness, and harming behaviors. This is a very fruitful direction for future research. Laboratory experiments can also be instrumental in examining the casual relationships between perceived unfairness and envy. Although perceived unfairness can serve as an affective event (Weiss & Cropanzano, 1996) leading to envy, the experience of envy can also lead to perceptions of unfairness (e.g., Smith, 1991) when individuals try to justify their envy and, hence, reduce the negative implications of envy for the self (e.g., Silver & Sabini, 1978b).

Finally, the studies reported in this article allow us to make inferences only regarding the processes that actually took place in our research participants' minds. However, these processes were not directly examined in our studies. Therefore, future studies should follow Barclay et al.'s (2005) example and actually measure attributions and appraisals to be able to understand how these processes in fact occur. Identification of the precise attributions that coincide with envy experiences may help to identify when organizations might turn envious feelings into productive behaviors.

Despite the above, our studies contribute to the fairness, envy, social exchange, and self-esteem literatures in several ways. First, most existing research on justice and emotions has examined how perceived fairness affects emotions (e.g., Barclay et al., 2005; Hegtvedt, Clay-Warner, & Ferrigno, 2002; Krehbiel & Cropanzano, 2000; Mikula et al., 1998; Smith et al., 1994; Weiss, Suckow, & Cropanzano, 1999), how emotions affect perceived fairness (Byrne, Rupp, & Eurich, 2003; Byrne, Rupp, Eurich, & Mattern, 2004; van den Bos, 2003), whether emotions mediate the relationship between perceived fairness and counterproductive work behaviors (Fox et al., 2001), or whether fairness mediates the influence of emotions on behavior (Schaubroeck & Lam, 2004). Ours, to the best of our knowledge, is the second to report on the interaction between fairness and emotions (the first study, Pillutla & Murnighan, 1996, examined the interaction between anger and fairness in predicting acceptance or rejection of ultimatum offers), and it is the first to examine the interaction between envy and unfairness as affecting harming behaviors, thus contributing to the envy, fairness, and counterproductive work behaviors literatures, expanding each in terms of variables examined and the understanding of processes at their bases.

Our studies also expand the social exchange framework in the study of fairness and emotions. First, we added an understudied target to the study of reactions to unfairness in organizations, that

of peers. Most fairness research that uses the social exchange framework examines reactions to fairness that are directed at supervisors and/or organizations (e.g., Cropanzano et al., 2002; Masterson et al., 2000). Second, ours are the first studies, to the best of our knowledge, to examine reactions to envy from the social exchange perspective. Although this was not the focus of our research, we believe our approach to reactions to envy can open additional lines of research regarding envy in organizations from a social exchange perspective. Although the studies reported here focused on harming behavior directed at the envied other, future research should also examine harming reactions directed at the organization and the supervisor as an exchange for their unequal treatment of the envious and the envied persons. Research has already found that envy between a person and a specific other is related to a negative atmosphere in the work group (Cohen-Charash, 2005). It might be that envy can also lead the envious person to harm the organization when individuals' harming behaviors are directed at the organization.

Practical Implications

Overall, our results suggest that organizations should focus on simultaneously reducing levels of unfairness and envy as a way of reducing interpersonal counterproductive work behaviors. Despite the fact that low unfairness is unrelated to the negative influence of envy, we did show that levels of harming are lower when levels of envy are lower. More specifically, although our results suggest that fairness cannot mitigate the negative influence of envy by decreasing harming behavior altogether, lower levels of unfairness considerably reduce the likelihood that envious employees will harm the performance and reputation of envied others. Our results also show that high self-esteem employees may be particularly susceptible to harming envied coworkers in unfair situations. Thus, organizations need to consider preventive or remedial practices when designing the distribution of outcomes (e.g., rewards, recognition, compensation) among high self-esteem individuals. One such practice, according to our studies, is to maintain strict adherence to all fairness rules (distributive, procedural, interpersonal, and informational) so as to make sure that employees are treated fairly even when they might face unfavorable social comparisons. Such fair treatment necessitates that the organization keep in proportion the profits and investments of individuals who are in exchange relationships while considering their various perspectives about what constitutes a cost and a profit. Thus, perceived unfairness should not be limited to the relationships between management and employees but should also include the relationships between the employees themselves (Homans, 1961).

Another implication of our results concerns organizations that promote and hire "stars." Such organizations may run higher risks that employees will engage in interpersonal counterproductive work behaviors toward these employees, because the star achievers may elicit envy toward themselves (Exline & Lobel, 1999; Lockwood & Kunda, 1997). The star culture might also promote envy (Lewis & Sherman, 2003; Mouly & Sankaran, 2002) because similar individuals engage in more social comparisons (Festinger, 1954) and because rewards and recognition are highly desired as well as scarce. Moreover, because the correlation between self-esteem and performance is generally positive (Judge & Bono, 2001), organizations that hire "best people" or high achievers

might also inadvertently hire high self-esteem individuals who, our results show, are more likely to engage in harming behaviors in response to experiencing envy. Hence, in star cultures, although strict adherence to fairness norms will not eliminate envy, it may reduce the degree to which envy contributes to an individual's harming an envied other (e.g., Feather, 1999).

Another possible implication of the results of these studies is for organizations to adhere to the strategy of maintaining secrecy about reward allocation (Leventhal, 1976). Keeping rewards secret prevents social comparison and, hence, reduces the possibility of perceived unfairness and envy. Secrecy also makes high achievers feel better about their advantages, because secrecy protects them from the envy of others (e.g., Foster, 1972). However, although maintaining secrecy is applicable in some situations (e.g., paychecks), it is not always possible. For example, it is impossible to hide the better office, and if managers do not publicly recognize good performers (e.g., with an "employee of the month" award), an important reinforcement is eliminated from their reinforcement tool kit. Thus, although maintaining secrecy might be a direct way of reducing envy, and with it harming behaviors, maintaining secrecy is not always possible and is not without down sides (Leventhal, 1976).

Conclusions

The present studies show that although both envy and unfairness are destructive forces in organizations, the combination of the two is particularly malignant for healthy relational functioning of employees in organizations. Furthermore, one mechanism through which envy and unfairness might combine to produce the worst results involves those employees who are high in self-esteem experiencing threatened egotism following high levels of envy and unfairness. Future research should examine the role that the unfairness domain and envy attributions might play in understanding when envy relates to counterproductive work behaviors. Future research should also examine whether high levels of fairness promote productive reactions to envy. In the meantime, our studies provide a first step to map the ways in which envy and unfairness combine to influence interpersonal behaviors in organizations.

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