# When Better Is Worse: Envy and the Use of Deception

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## Abstract

In this article, we describe how envy motivates deception. We find that individuals who envy a counterpart are more likely to deceive them than are individuals who do not envy their counterpart. Across both a scenario and a laboratory study, we explore the influence of envy in a negotiation setting. Negotiations represent a domain in which social comparisons are prevalent and deception poses a particularly important concern. In our studies, we induce envy by providing participants with upward social comparison information. We find that upward social comparisons predictably trigger envy, and that envy promotes deception by increasing psychological benefits and decreasing psychological costs of engaging in deceptive behavior. We discuss implications of our results with respect to negotiations and the role of emotions in ethical decision making.

Envy is an important, but relatively understudied emotion. Although envy is typically self-sanctioned and not often vocalized (Smith, 1991; Vecchio, 2000), it is a common and strong emotional reaction to unfavorable social comparisons. Prior work has found that envy can exert substantial influence on interpersonal attitudes and behavior (e.g., Feather, 1989, 1991; Parrott & Smith, 1993; Salovey & Rodin, 1984; Smith, 1991; Smith, Parrott, Diener, Hoyle, & Kim, 1999; Smith, Parrott, Ozer, & Moniz, 1994; Smith et al., 1996; Tesser & Collins, 1988; Vecchio, 1995, 2000).

Surprisingly little research has considered the role of envy in organizational settings (see Cohen-Charash & Mueller, 2007; Dunn & Schweitzer, 2006; Mouly & Sankaran, 2002; Schaubroeck & Lam, 2004; Vecchio, 1995, 2000, for exceptions). We postulate that envy is

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likely to play a particularly important role in organizations that both induce envy (e.g., by promoting social comparisons via performance reviews or promotion decisions) and require coordination among employees. Managers who design competitive award systems and colleagues who outperform their peers may fail to anticipate envy and its consequences. In the present research, we consider an organizational domain in which envy is particularly likely to be triggered and in which envy is likely to have profound consequences, negotiations. Specifically, we explore the influence of envy in motivating a negotiator's use of deception.

## Envy

Consistent with prior work, we define envy as the feelings that arouse ''when a person lacks another's superior quality, achievement, or possession and either desires it or wishes the other person lacked it'' (Parrott & Smith, 1993, p. 906). Envy is often evoked when individuals are outperformed in a domain relevant to their self-concept, and prior work has found that envy is associated with feelings of inferiority, frustration, subjective injustice, and longing (Parrott & Smith, 1993). In general, feelings of envy are more intense when the outperformer is someone similar to the target individual, when the outperformed person has suffered a setback (Heider, 1958; Salovey & Rodin, 1984; Smith et al., 1996, 1999; Tesser & Collins, 1988), and when the discrepant outcomes are perceived as resulting from an unfair procedure (Smith et al., 1994; Vecchio, 1995).

Russel (1930, p. 82) characterized envy as ''one of the most universal and deep-seated human passions.'' In fact, numerous scholars across a wide range of disciplines have identified envy as a uniquely unpleasant emotion that is essential for understanding human nature (e.g., Aristotle, 1991; Bacon, 1890; Foster, 1972; Heider, 1958; Klein, 1957; Schoeck, 1969; Smith et al., 1999). Even though unfavorable social comparison information can trigger unpleasant emotions, individuals frequently seek social comparison information, which in many cases provides valuable feedback (Smith, 2004). For example, unfavorable social comparison information enables individuals to identify threats from others, to avoid mistakes, such as mistakenly believing one can dominate another person, and to effectively navigate their interpersonal relationships.

Although we focus on the deleterious effects of envy, it is important to note that envy has also been shown to be functional in motivating individuals to improve their performance, particularly when individuals who experience envy believe that they too can achieve the desired outcome (Schaubroeck & Lam, 2004). If, for example, an envious employee perceives that by working longer hours, she too can win the employee of the month award, envy can motivate her to work longer hours.

Prior research has found that people experiencing envy tend to devalue and belittle the envied target (Salovey & Rodin, 1984; Vecchio, 1995). For instance, Salovey and Rodin (1984) found that participants rate students whom they envy lower than other students on traits such as caring, niceness, and attractiveness. Envy has also been associated with feelings of hostility, schadenfreude (taking pleasure in the suffering of others), and decreased levels of cooperation (Brigham, Kelso, Jackson, & Smith, 1997; Duffy & Shaw, 2000; Feather, 1989, 1991; Parks, Rumble, & Posey, 2002; Smith et al., 1994, 1996).

In this article, we explore the role of envy in promoting acts of deception. We study this relationship within the context of negotiations, a domain in which social comparisons are prevalent and deception possesses a particularly important concern.

## Envy and Negotiations

Negotiations are common social interactions that are used to resolve differences and allocate resources. Negotiations occur at many levels, between buyers and sellers, politicians and diplomats, spouses, friends, and colleagues (Bazerman & Neale, 1992).

Prior work has demonstrated that social comparisons are common within negotiations (Connolly & Ordonez, 2000; Loewenstein, Thompson, & Bazerman, 1989; Novemsky & Schweitzer, 2004; Sondak, Neale, & Pinkley, 1999). Since envy is triggered by social comparisons, we expect it to be prevalent in negotiation settings.

Although negotiators are likely to engage in social comparisons with their counterparts before, during, and after a negotiation, previous research has focused on the influence of social comparisons with respect to outcomes *after* a negotiation has been *completed*. Less attention has been directed to exploring how comparisons *prior to a negotiation* might impact negotiator behavior. In this article, we investigate this issue and describe the influence of envy produced by unfavorable *prenegotiation* social comparisons on an important negotiator behavior, the use of deception.

A growing body of negotiation research has begun to explore the impact of affect in negotiations (for reviews see Barry & Oliver, 1996; Bazerman, Curhan, Moore, & Valley, 2000; Thompson, Nadler, & Kim, 1999). Much of this work has contrasted the influence of positive and negative moods. This work has found that individuals experiencing positive, rather than negative affect are more likely to engage in cooperative behavior, less likely to engage in contentious behavior, and more likely to create joint value (e.g., Baron, 1990; Carnevale & Isen, 1986; Forgas, 1998; Isen, Daubman, & Nowicki, 1987; Murnighan, 1991). Related work has begun to focus on the influence of discrete emotions in negotiation, especially anger. This work has found that anger reduces joint gains, decreases the desire of negotiators to work together in the future, intensifies competitive behavior, and increases the rejection rate of offers (e.g., Allred, Mallozzi, Matsui, & Raia, 1997; Pillutla & Murnighan, 1996). In some cases, however, the expression of negative emotions such as anger in negotiation can serve important communicative functions that benefit negotiators (Frank, 1988; Friedman et al., 2004; Morris & Keltner, 2000; Thompson et al., 1999; Van Kleef, De Dreu, & Manstead, 2004a, 2004b). For example, Van Kleef et al. (2004a, 2004b) demonstrate that expressing anger can elicit concessions from a counterpart. Discrete emotions other than anger, however, have received scant attention in the negotiation literature.

Social comparisons play an integral role in interpersonal contexts such as negotiations (Connolly & Ordonez, 2000; Loewenstein et al., 1989; Novemsky & Schweitzer, 2004). Since envy is one of the strongest emotions evoked by unfavorable social comparisons (Salovey & Rodin, 1984; Smith et al., 1999; Tesser & Collins, 1988), we expect envy to exert considerable influence on the negotiation process.

## Deception in Negotiations

Informed by prior work, we define deception as communication that is intended to mislead a counterpart (e.g., DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996; Ekman, 1985; Grover, 1997). Deception represents a particularly important concern in negotiations (Lewicki, Barry, Saunders, & Minton, 2003). Negotiations are characterized by information dependence; negotiators typically possess private information, which they need to share to reach an efficient agreement. In many cases, however, negotiators can misrepresent their private information to gain power and an opportunistic advantage (Kim, Pinkley, & Fragale, 2005; Lewicki et al., 2003; Robinson, Lewicki, & Donahue, 2000; Schweitzer & Croson, 1999).

Although some contend that using deception in negotiations is often appropriate (Beckman, 1977; Carr, 1968), recent scholars have argued that many types of lies constitute unethical, and sometimes illegal, behavior (Anton, 1990; Aquino & Becker, 2005; Becker, 1998). Robinson et al. (2000), for example, found that people typically view misrepresenting and distorting information in negotiation as unethical. Similarly, in a survey conducted by Anton (1990) that included MBA students, full time managers, and clergymen, not a single respondent considered making false statements during negotiations as ethical. Although definitions of what constitutes ethical behavior are contextually and culturally informed, a substantial literature has identified lies about material facts in negotiations as unethical.

In this article, we consider the decision to lie within a framework of ethical decision making. Surprisingly, models of ethical decision making have largely neglected the role of emotion. Prior models have conceptualized ethical decision making as a product of economic incentives (Alingham & Sandmo, 1972; Holmstrom, 1979) or a mixture of incentives and cognitive factors (Alingham & Sandmo, 1972; Gneezy, 2005; Grover, 1993; Jones, 1995; Jones & Ryan, 1997, 2001; Lewicki, 1983; Lewicki, Saunders, & Minton, 1999; Lewicki et al., 2003; Schweitzer, Ordonez, & Douma, 2004; Tenbrunsel & Messick, 2001, 2004; Trevino, 1986).

A few studies have considered emotional *responses* to unethical behavior. For example, Gaudine and Thorne (2001) suggest that emotional reactions may help decision makers identify ethical dilemmas, and in fact, research has found that emotional expressions do facilitate deception detection (e.g., Buller & Burgoon, 1998; Ekman, 2003; Frank, 1988, 2002; Frank & Ekman, 1997). Related work has considered the possibility that individuals might strategically misrepresent their emotions (Barry, 1999). This research, however, has not considered how emotions might operate as an *antecedent* to the decision to use deception.

In the present work, we test the thesis that discrete feelings of envy increase the likelihood that an individual will engage in deception. We primarily build upon the ethical decision making model proposed by Lewicki (1983). In this model, a negotiator weighs the costs and the benefits of deceiving a target prior to making a decision to engage in deception (Lewicki, 1983; Lewicki et al., 2003).

From a classical economic perspective, the decision to engage in deception is informed by the expected economic outcomes, such as the opportunity to gain additional resources and the likelihood and consequences of being detected (Alingham

& Sandmo, 1972; Gneezy, 2005; Holmstrom, 1979; Mazar & Ariely, 2006). A growing literature, however, has identified the importance of psychological factors in the deception decision process (e.g., Argo, White, & Dahl, 2006; DePaulo et al., 1996; Mazar & Ariely, 2006; Schweitzer et al., 2004). DePaulo et al. (1996) for example, suggest that people tell self-serving lies to cast themselves in a more positive light, to feel better about themselves, and to protect themselves from negative outcomes. In the present article, we primarily focus on psychological motives. Drawing upon prior work, we specifically postulate that envy will promote deception by increasing the psychological benefits and decreasing the psychological costs of engaging in deception.

Although prior work has suggested that emotions (e.g., guilt) may constrain unethical behavior, recent research has begun to explore the possibility that emotions might promote unethical behavior (Schweitzer & Gibson, in press). We postulate that envy will promote unethical behavior by producing a psychological benefit. Prior research has linked envy with schadenfreude (taking pleasure in the suffering of others; Feather, 1989, 1991; Smith et al., 1996). This work has described schadenfreude as *passive* enjoyment of another's misfortune. We contemplate that individuals are likely not only to gain enjoyment from another person's distress or suffering, but also to gain pleasure from *actively* harming that person and causing her or him misfortune. Thus, we expect feelings of envy to increase an individual's willingness to deceive an envied counterpart by increasing the psychological benefits from harming a target.

In most cases, the act of engaging in deception produces psychic stress. It threatens the deceiver's self-perception as a moral and trustworthy individual and thus stimulates negative emotions such as shame and guilt. Consequently, when people deceive they often employ various neutralizing strategies to justify and legitimize their acts and thereby reduce the psychic stress. Prior work on envy has found that envious individuals devalue and belittle the envied target (Salovey & Rodin, 1984; Vecchio, 1995). We expect this psychological process to facilitate the self-justification process and lower the psychological costs of engaging in deception (Lewicki et al., 2003; Schweitzer & Hsee, 2002). We conjecture that a decision to deceive someone after that person has been devalued is perceived as more justified and thus less "costly" in terms of psychic stress.

We conducted two studies to test the thesis that envy promotes deception. The first study employs scenario methods and explores the mechanics of the relationship between envy and deception. The second study examines actual behavior in a setting with monetary stakes.

Prior work has identified a gender difference with respect to ethical decision making in negotiations (Lewicki & Robinson, 1998; Robinson et al., 2000); men self-report a greater willingness to engage in unethical negotiation tactics than do women. In this article, we explore gender differences in deception behavior. Consistent with prior work, we expect men to be overall more likely than women to engage in deception.

## Study 1

In this study, we examine the relationship between envy and intentions to engage in deception. We induce envy by describing different relative outcomes, and we explore

the mechanics of the relationship between envy and deception within a negotiation context. In particular, we consider the role of envy in promoting enjoyment in the misfortune of an envied target, thereby increasing the psychological benefits of engaging in deception. We also consider the role of envy in prompting negotiators to belittle their envied counterparts and to justify deceiving them, thereby lowering the psychological costs of engaging in deception.

## Method

### *Design*

Participants completed one of four versions of a survey from a $2 \times 2$ between-subject design. The design included two *envy conditions* (high or low) and two *gender conditions* (male or female). In both envy conditions, participants were asked to imagine a scenario at work in which they competed for and did not win a desired promotion. Participants were then asked to consider engaging in a negotiation with either the person who was awarded the promotion (high envy condition) or another person who was not awarded the promotion (low envy condition).

Across conditions, we attempted to control for a number of factors. First, across conditions participants were asked to imagine being involved in a competition. Second, across conditions participants were asked to imagine losing. Third, given the previously mentioned findings that envy can be intensified by perceptions of procedural unjustness (Smith et al., 1994; Vecchio, 2000), across conditions we described the company and its typical management decision making procedures in the following way: ''You like the company, and believe that senior management goes to great lengths to make decisions carefully and fairly.'' This was done to control for the possibility that subjective beliefs of procedural injustice underlie the link between feelings of envy and deception.

Prior work has found that envy is experienced most acutely when individuals compare themselves with others who are similar to themselves. Consequently, we matched the gender of the hypothetical counterpart with that of the respondent, so that male participants read a scenario about a male counterpart and females read about a female counterpart. We further manipulated similarity by describing the participant and counterpart as having the same ''career track,'' with similar interests and goals for advancement in the company.

### *Participants*

We recruited 164 Israeli participants to complete a survey in exchange for a chocolate bar. These participants included 47 working professionals and 115 MBA and Executive MBA students. A majority of the participants (105) were female. On average, participants were 33 years old ($SD = 8.6$), and had worked for 7.9 years ($SD = 8$). Within each participant group and across both genders, we randomly assigned participants to one of the two between-subject envy conditions. Overall, 83 participants completed the high envy version of the survey and 81 completed the low envy version of the survey.

***Procedure and Materials***

In each condition, participants received a packet of materials. The first part of the packet included the scenario describing the competition, its outcome, and the upcoming negotiation. The second part included an 8-item measure of deception. The third part measured envy. The fourth part measured perceived procedural fairness and assessed potential mediators of the relationship between envy and deception, including perceived psychological benefits and perceived psychological costs of engaging in deception. The final part solicited demographic information.

*Scenario* Participants were asked to imagine competing with four co-workers for a desirable promotion, and then learning from senior management that they were ranked second and were not selected. They were further asked to imagine that the promotion takes effect in 1 month, and that before it takes effect, they will need to work on a new company project with one of the co-workers with whom they competed for the promotion. This co-worker was either the one that was selected for the promotion (ranked first) or one that was not selected for the promotion (ranked third). Participants were given details about their new project and told that as a first step, they and the co-worker "will need to negotiate the structure of this new project."

*Deception Measure* Immediately after reading the scenario, participants completed an 8-item measure of unethical behavior that we adapted from the SINS scale (Self-Reported Inappropriate Negotiation Strategies; Robinson et al., 2000). We chose and adapted items from the SINS scale to match our negotiation context, and we list the items we used in Appendix 1. The scale reliability (Cronbach's $\alpha$) for the eight items was .83, and we use the average score across the eight items as a combined measure in subsequent analyses.

*Envy Measure* Our envy measure included four items. The first item directly asked participants to rate, on a 7-point scale, the degree to which they felt envy toward their negotiating counterpart. The additional three items asked participants to rate the degree to which they agreed with the following statements about their negotiating counterpart: "Her/his outcome (winning/not winning the promotion) has many advantages"; "I would have very much liked to get her/his outcome"; "The thought of her/his outcome makes me feel frustrated." We computed the mean of these four items as our multi-item measure of envy (Cronbach's $\alpha = .89$) and report results with respect to this measure. (We conducted a parallel set of analyses using the single-item envy measure, and obtained the same pattern of results).

*Potential Mediators* We also included questions to measure potential mediators of the relationship between envy and deception (we list these items in Appendix 2). These included: (a) psychological costs: five items for assessing belittling and self-justification of deception, and (b) psychological benefits: three items for assessing feelings of pleasure from harming the other party. The Cronbach's $\alpha$ for the five psychological cost items is .66, and we used their mean score as an aggregate measure of perceived costs and justification.

The Cronbach's $\alpha$ for the three items measuring psychological benefit in terms of schadenfreude was only .45, but increased to .57 when we excluded the first item. As a result, we computed an aggregate psychological benefit measure without the first item.

*Procedural Fairness* We assessed perceived procedural fairness with two items. The first referred to the promotion decision itself: "I believe this promotion decision was made fairly," and the second referred to the company decision making procedures in general: "The procedures this company uses for making promotion decisions are typically unfair" ($r = .31$, $p < .05$). Due to the low correlation, we did not form an aggregated score. Instead, we considered each of these items separately.

*Demographic Measures* We asked participants demographic questions about their age, gender, and years of work experience.

## Results

We first conducted a manipulation check. In an ANOVA testing envy ratings as a function of the envy condition and gender, the envy condition was significant; $F(1, 160) = 478.95$, $p < .0001$, $\eta^2 = .75$, but neither gender nor the interaction were significant ($p > .5$). That is, across both men and women, mean envy scores were significantly higher in the high envy condition ($M = 5.60$, $SD = .9$) than they were in the low envy condition ($M = 2.04$, $SD = 1.04$).

Although envy can be exacerbated by perceptions of unfairness (Smith et al., 1994), we attempted to control for perceptions of fairness through our description of the company's decision processes. We assessed the effectiveness of this control by examining participants' responses to each of the two perceived procedural fairness items as a function of the experimental condition. Across conditions, none of the perceptions of procedural fairness were significantly different ($t < 1$, $p > .3$, for both items), suggesting that in manipulating envy we did not significantly influence perceptions of procedural fairness.

We next examined the tendency to engage in deception as a function of condition and gender. We conducted a factorial ANOVA with SINS score as the dependent variable and condition (high or low envy) and gender (male or female) as independent variables. We depict these results in Figure 1. As expected, we find a significant main effect for condition, $F(1, 160) = 5.53$, $p < .05$, $\eta^2 = .03$; participants in the high envy condition reported that they were more likely to engage in deception than were participants in the low envy condition. Consistent with previous findings (e.g., Lewicki & Robinson, 1998; Robinson et al., 2000), we also found a significant main effect for gender, $F(1, 160) = 4.47$, $p < .05$, $\eta^2 = .03$; males reported a greater willingness to engage in deception than did females. We did not, however, find a significant interaction between gender and condition, $F(1, 160) = .03$, $p > .8$; suggesting that envy increased the self-reported likelihood that men and women would engage in deception by a similar amount.

We used mediation analysis to test whether experienced envy mediates the effect of condition on deception. Across both a Baron and Kenny (1986) mediation and a Sobel

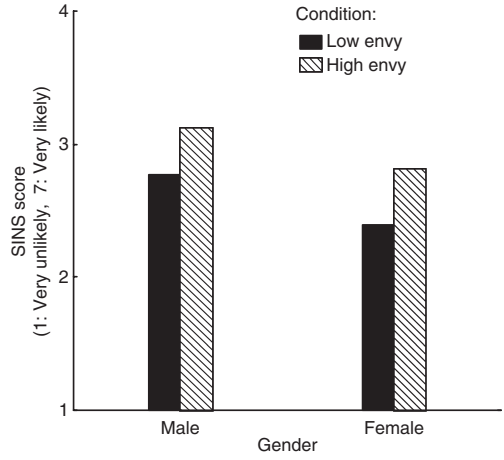


*Figure 1.* Study 1—SINS score as a function of condition and gender.

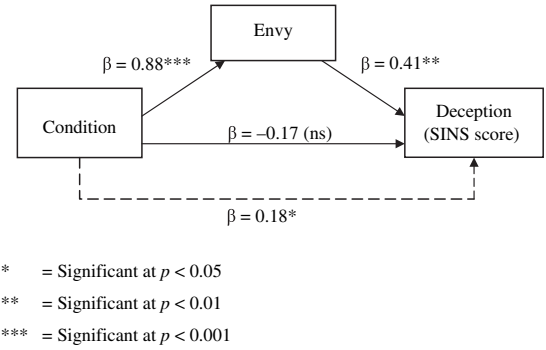


*Figure 2.* Study 1—Envy mediating analysis.

(1982) test ($z = 2.55$, $p < .01$), we found that envy fully mediates the relationship between our envy condition and intentions to use deception. We depict these results in Figure 2, and we report our mediation results in three steps. First, envy was significantly higher in the high envy condition than it was in the low envy condition. Second, intended deception was significantly higher in the high envy condition than it was in the low envy condition. Third, envy had a significant and unique effect on intended deception, and when we added envy to the model, the effect of condition on deception decreased and became insignificant.

We next examined the role of perceived psychological costs and benefits in mediating the link between envy and deception intentions. We report correlations among feelings of envy, psychological costs, and psychological benefits in Table 1, and we report results from mediation analyses (Baron & Kenny, 1986) in Figure 3. As shown in Figure 3, we find that

Table 1
*Study 1—Correlations between Independent Variables*

| | Envy | Perceived cost | Perceived benefit |
|---|---|---|---|
| Envy | 1 | — | — |
| Perceived cost | .29** | 1 | — |
| Perceived benefit | .51** | .56** | 1 |

*Note.* **Significant at $p < .01$

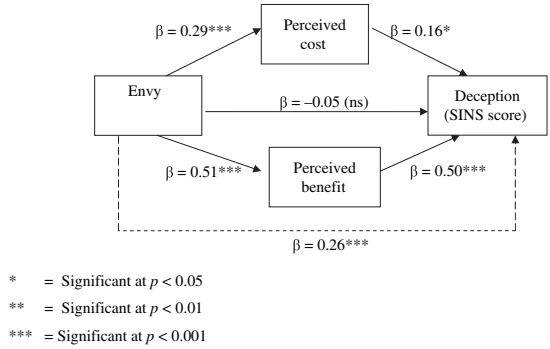


*Figure 3.* Study 1—Perceived cost and benefit mediating analysis.

both psychological benefits and psychological costs shift as a function of envy and that these changes mediate the relationship between envy and deception. First, envy significantly affects perceived psychological benefits (schadenfreude) as well as perceived psychological costs. Second, envy significantly affects intentions to engage in deception (absent other predictors). Third, a multiple regression for predicting the SINS score from envy in addition to perceived psychological benefits and costs reveals that both perceived benefits and perceived costs have a significant unique effect, and that when perceived benefits and costs are added to the model, the effect of envy is no longer significant. We report the results of this multiple regression in Table 2. As can be seen, the tolerance and Variance-Inflation Factor values confirm that collinearity is not a concern in this study. This pattern of results implies that both perceived psychological costs and benefits play a mediating role in the effect of envy on intended deception. We also conducted two separate Sobel tests for each mediator (Sobel, 1982). Consistent with the Baron and Kenny (1986) mediation analyses, results from the Sobel tests identify both perceived costs, $z = 2.85$, $p < .01$, and perceived benefits, $z = 3.09$, $p < .01$, as significant mediators.[1]

[1]We conducted two additional hierarchical regression analyses, alternating the order of entering psychological benefits and costs as independent predictors of SINS (envy always included first). For brevity we do not report these results in detail. However, we note that both models replicated our mediation analyses. Independent of their order in the model, both psychological costs and psychological benefits had unique contributions to predicting intended deception.

Table 2
*Study 1—Results of a Multiple Regression for Predicting SINS from Envy, Perceived Costs, and Perceived Benefits*

| Effect | *B* | *SE* | Beta | *t* | *p* | Tolerance | Variance-inflation factor |
|---|---|---|---|---|---|---|---|
| Constant | 1.54 | .18 | — | 8.50 | .000 | — | — |
| Envy | −.02 | .04 | −.05 | −.6 | .549 | .74 | 1.35 |
| Perceived cost | .16 | .08 | .16 | 2.08 | .039 | .68 | 1.47 |
| Perceived benefit | .37 | .06 | .50 | 5.82 | .000 | .55 | 1.81 |

| Analysis of variance Source | *SS* | *df* | *MS* | *F* ratio | *p* |
|---|---|---|---|---|---|
| Regression | 57.53 | 3 | 19.18 | 28 | .000 |
| Residual | 109.68 | 160 | .69 | — | — |

*Note.* $r = .59$; $r^2 = .344$; Adjusted $r^2 = .33$; standard error of estimate = .83.

### Study 1 Discussion

We find that feelings of envy increase the self-reported likelihood of engaging in deception during a negotiation. While prior work has found that unfavorable relative outcomes can harm negotiator satisfaction *following* a negotiation (e.g., Novemsky & Schweitzer, 2004), our results suggest that unfavorable relative outcomes *prior* to a negotiation influence negotiator behavior.

We find that envy promotes deception in two ways. First, envy increases the psychological *benefits* from using deception. Second, envy lowers the psychological costs of engaging in deception by facilitating belittling and self-justification. Our findings are consistent with Lewicki's model of deception (Lewicki, 1983; Lewicki et al., 2003), which postulates that individuals make unethical decisions by weighing the perceived benefits and perceived costs of engaging in unethical acts.

Results from our study also offer insight into the mechanics of envy. Notably, they suggest that envy can be triggered by unfavorable outcomes from workplace competitions. In addition, while prior work has suggested that perceptions of procedural unfairness are an important part of feeling envy, our results provide support for the notion that perceived unfairness is not necessary for envy and its harmful consequences to operate (Cohen-Charash & Mueller, 2007).

## Study 2

In Study 2, we extended our investigation of the relationship between envy and deception. Rather than manipulating envy by describing an unfavorable outcome of a competition as in Study 1, we manipulated envy by providing unfavorable social comparison information. The main objective of this study was to examine whether envy increases deceptive behavior when monetary stakes are involved. Thus we used a behavioral measure of deception with monetary stakes, rather than self-reported intentions.

The primary dependent variable in this study was claims participants made within a negotiation context. We asked participants to make decisions as ''Proposers'' in a single-period ultimatum game with an uncertain pie size. In a typical ultimatum game, two people decide how to split a sum of money. A ''Proposer'' proposes a split of a sum of money, and a ''Responder'' can either accept or reject the proposed division. If the Responder rejects the division, both players receive no money. If the Responder accepts the division, both players receive the amounts indicated by the proposal (e.g., Guth, Schmittberger, & Schwarze, 1982; Thaler, 1988). In the uncertain pie size version of the ultimatum game, Responders do not know the size of the initial sum of money (or of the ''pie'' that is to be divided). Instead, they receive an offer regarding the amount that the Proposer offers to pass to them, and need to make their decision with either no or limited information about the initial sum (e.g., Croson, Boles, & Murnighan, 2003; Straub & Murnighan, 1995). In our study, participants (in the role of the Proposers) were given private information about the pie size. Thus, when making an offer to their counterpart (the Responder) they could lie about the size of the pie they actually received. Understating the pie size can be advantageous for the Proposer. If believed by the Responder, claims of a small pie are likely to raise the probability that the Responder will accept a small offer, and thus leave more money for the Proposer. If, for example, the actual amount to be divided, known only to the Proposer, is $100, Responders are more likely to accept low offers (such as $30) if they are led to believe that the actual pie size is $60 rather than $100.

We randomly assigned participants to one of two envy conditions by manipulating social comparison information. We tested the thesis that when people are paired with a highly successful counterpart they will be more likely to envy their counterpart and to lie to their counterpart than when they are paired with a moderately successful counterpart.

## Pilot Test of the Envy Manipulation

### *Method*

*Design* We first conducted a pilot study to gauge the effectiveness of our envy manipulation. We used a $2 \times 2$ between-subject design that included two *envy conditions* (high vs. low) and two *gender conditions* (male vs. female). Both male and female participants read about a same-gender counterpart who was either highly successful or moderately successful.

*Participants* We recruited a total of 46 participants, 30 males and 16 females. They were recruited via poster advertisements at an Israeli university with an offer to pay 25 NIS (approximately $5 USD) for participation.

*Procedure and Materials* As participants arrived, an experimenter assigned each individual to one of two adjacent rooms. At the start of the experiment, the experimenters handed out and read aloud the following instructions:

> You and another group of students, currently located in a classroom nearby, are about to participate in a career assessment study. You will be asked to write a short description of

yourself (by answering a few focused questions) and to complete personality measures. After writing the description and completing the personality measures, you will be paired with someone from the other room. You will read their essay and assess their career prospects.

Participants then completed a short "background information" survey that asked participants several questions about their background, including demographic questions, questions about their academic performance, entrance examination scores, military experience (which is compulsive in Israel), and social life.

Experimenters collected the completed surveys, presumably to exchange them with participants in the other classroom, and gave participants a personality survey that included items from various scales. This served as a filler task to allow experimenters time to prepare (outside of view) the next set of materials.

After participants completed the filler task, experimenters distributed completed versions of the background information survey. Participants were led to believe that they were receiving answers to the background information survey provided by a fellow participant in the neighboring room. In fact, each participant received one of *four versions* of the background information survey. These versions were handwritten and prepopulated to induce either a high or a low amount of envy. We created the four versions from a $2 \times 2$ design that matched each participant's gender and included a description of either a high performer or an average performer. The experimenters also completed the prepopulated form so that the presumed counterpart matched the participant's age and academic major. We matched participants along these demographic dimensions to increase the self-relevance of the comparison.

Consistent with the purported objective of the experiment, we asked participants to assess the future career success of their "counterpart." We then assessed their feelings of envy toward this counterpart. We adapted the 4-item envy measure we used in Study 1 to match the current context. In addition to the direct envy item, the measure included the following three items: "This student has a highly advantageous and desirable resume"; "I would very much like to have a resume similar to this student's resume"; "The thought of her/his accomplishments makes me feel frustrated." The Cronbach's $\alpha$ measure for these items was .80, and we used the average of these items as our measure of envy.

At the end of the experiment, participants were debriefed and paid for their participation. Experimenters explained the importance of initially concealing the true purpose of the study, and of using the different versions of the background information. Experimenters thanked participants and provided contact information to enable further inquiries about the experiment.

### *Results and Discussion*

We first conducted a factorial ANOVA on our envy score as a function of the envy condition and gender. Results from this ANOVA revealed that the envy manipulation was, as expected, effective. Feelings of envy were significantly higher in the high envy condition than they were in the low envy condition ($M = 4.2$, $SD = 1.2$ vs. $M = 2.5$, $SD = .8$, respectively), $F(1, 42) = 35.5$, $p < .0001$, $\eta^2 = .46$. Being a self and socially-sanctioned

emotion, self-reported envy levels above the midpoint of the scale can indicate strong feelings. In this study, envy ratings shifted across conditions by 1.7 points on a 7-point scale.

We found no significant main or interaction effects for gender. On average, men reported envy at levels very similar to those of women ($M = 3.36$, $SD = 1.3$ vs. $M = 3.33$, $SD = 1.4$, respectively), $F(1, 42) = .25$, $p = .6$, $\eta^2 = .006$.

In this pilot study, we validated our method for inducing feelings of envy toward a potential counterpart. Across both genders, we found that participants reported significantly higher amounts of envy after reading about a high achieving counterpart than they did after reading about a moderately successful counterpart.

## Lab Experiment

### *Method*

*Design* As in the pilot study, we used a 2 × 2 between-subject design that included two *envy conditions* (high vs. low) and two *gender conditions* (male vs. female).

*Participants* We recruited 60 participants for an experiment in decision making via posters at an Israeli university. Participants were promised a base payment of 35 NIS (about $8) and an opportunity to earn more.

*Procedure* Upon their arrival, participants were randomly assigned to one of two adjacent rooms. The experiment included two stages. In the first stage, participants were exposed to the same envy manipulation we used in the pilot study. In the second stage, participants made ultimatum game decisions.

*Stage 1: Manipulation.* Before beginning the actual experiment, participants were told that they and another group of participants, currently sitting in a different room, would participate in a study about interpersonal decision making. They were then told the following:

> Before we begin the actual experiment each of you will be asked to write a short description of yourself (by answering a few focused questions) and to complete a personality measure questionnaire. After writing the description and completing the personality measure, you will be paired with someone from the other room and read his/her self-description.

Participants next completed the same background survey, received the same filler task, and read the same prepopulated information about their purported counterpart (tailored to match them in terms of gender, age, and academic major) as we used in the pilot study.

*Stage 2: Ultimatum game.* After collecting the first set of materials, experimenters announced the beginning of the second stage of the experiment, and handed out a new set of instructions. In these instructions, participants were told:

> In this research, we are studying interpersonal decision making between people with different levels of acquaintance. As a result, some of you will be matched with someone new that you

> do not know anything about, and some of you will be matched with the same person whose bio information you have just read.

Participants were told that their personal instructions would inform them about which condition they were assigned (known or unknown counterpart). The instructions also included the following detailed explanation of the rules of the game:

> One of you will be Player 1, and one of you will be Player 2. The two of you will make a decision about how to divide a sum of money. Player 1 will receive an amount of money and will make an offer to Player 2 about how to divide it. Player 2 will then decide whether to accept or to reject Player 1's offer. If Player 2 accepts the offer, the money will be split between the two of you according to Player 1's proposal. If Player 2 rejects the offer, neither of you will receive any money. You will be paid at the end of this experiment based upon the decisions you and your partner make.

In fact, all participants were assigned the role of Player 1 (i.e., Proposer), and all were informed that they were paired with a "known" counterpart, the counterpart whose description they had just read. Participants were also informed that while they know information about their counterpart, their counterpart does not know who they are. We used these directions to provide participants with a sense of anonymity and to conceal the link between our envy induction and our measure of deception.

Participants were informed that Player 2 knows that the actual sum of money that Player 1 has received to divide ranges between 10 and 80 NIS, with any number within that range equally likely. Participants were told that they (as Player 1) will receive a note in a sealed envelope, indicating what the actual sum is (a number between 10 and 80 NIS), and that upon receiving this information they will be asked to send an offer to Player 2 that includes: (a) Making a claim about the sum of money to be divided; (b) Making an offer to Player 2.

Before receiving information about the sum of money to divide, participants were given comprehension-check questions to assess their understanding of their role, their treatment condition (with whom they were paired), the rules of the game, and their notion of the research purpose.

Experimenters then gave each participant three envelopes. The first included a note specifying the actual sum of money to be divided. In all cases, participants were given the same amount, 60 NIS (about $14 USD). The second envelope included a form that asked participants to provide their counterpart with information about the sum to be divided. The third envelope included a form that asked participants to specify their offer. Participants filled out the forms from the second and third envelopes, sealed the envelopes, and handed them to the experimenter. To give participants a sense that the true sum of money they had to divide was private information, we instructed participants to keep the first envelope (that indicated the true sum) until the conclusion of the study. We told participants that at the conclusion of the experiment they would return the first envelope to a separate experimenter who would pay them based upon their offer, their counterpart's response, and the true sum. Participants then completed a few final comprehension-check questions.

We added a final stage merely to complete the ultimatum game and determine payments. In this stage, participants in both groups were told that they would play a second ultimatum game in a different role (i.e., Player 2, Responder). We randomly distributed the Player 1 offers from Stage 1 among participants, and used their accept/reject decisions from this stage to calculate payments to all participants for the first game. Regarding payment for the second game, we told participants in advance that only one of the participants in this second game would be randomly selected and anonymously paid according to their outcome in this game.

We then debriefed participants, explained the importance of initially concealing the true purpose of the experiment and of using the manipulated background information surveys, and provided contact information for any further inquiries. Finally, we paid each participant in private. By design, during the payment stage, experimenters did not know whether the participant had or had not lied.

***Results***

Of the 60 initial participants, we had to exclude four who failed the comprehension checks and three who were not students, and thus unsuitable for our matching envy induction. As a result, we report results for the 53 remaining participants: 26 in the low envy condition (14 male and 12 female) and 27 in the high envy condition (14 male and 13 female).

In this study, we did not ask participants to complete questions about their feelings of envy. We were concerned that asking these questions might make the envy manipulation salient and highlight the purpose of the study. Notably, in response to open-ended questions about the objectives of the study, no participants identified any issues related to envy.

To test our thesis that participants would deceive high achieving (envied) counterparts more than they would deceive average (non-envied) counterparts, we examined deception regarding the size of the pie. For each participant, we measured the difference between the actual pie size (amount of 60) and the claimed pie size (the amount the participant reported s/he received). We performed a factorial ANOVA with gender and condition as between-subject independent variables and magnitude of deception as dependent variable. Supporting our thesis, we found a significant main effect for condition, $F(1, 49) = 4.02$, $p < .05$, $\eta^2 = .08$; the magnitude of deception in the high envy condition was significantly larger than it was in the low envy condition ($M = 15.4$, $SD = 15$ vs. $M = 7.8$, $SD = 11$, respectively). We found no significant main or interaction effects for gender ($p > .3$). In subsequent analyses, we collapsed data across the gender conditions.

The difference in deception across envy conditions could be due to differences in the percentage of participants who engaged in deception, differences in the magnitude of deception (i.e., the extent to which participants who did engage in deception misrepresented the pie size), or both. To explore these differences, we conducted two sets of analyses. First, we compared the proportion of participants who lied about (i.e., understated) the pie size across the envy conditions (as expected, no participants overstated the pie size). A greater percentage of participants lied about the pie size in the high envy condition than in the low envy condition, (66.7% vs. 38.5%), $\chi^2(1, N = 53) = 4.23$,

$p < .05$. Second, for participants who did lie, we compared the magnitudes by which they lied. Across conditions, participants who used deception lied by similar amounts. The 10 participants in the low envy condition misrepresented the pie size by an average of 20.2 ($SD = 9.2$), and the 18 participants in the high envy condition misrepresented the pie size by an average of 23 ($SD = 13$), $t(26) < 1$. Taken together, we found that envy increased the likelihood that participants would lie, rather that the magnitude by which they lied.

We next examined the relationship between the use of deception and the amount participants offered. For each condition we conducted a $t$ test comparing the amount that was offered by participants who deceived compared to the amount that was offered by those who did not deceive. In both conditions participants who lied about the pie size offered significantly less than participants who did not lie; $M = 19.1$ ($SD = 4.1$) versus $M = 27.3$ ($SD = 5.7$), $t(24) = 3.92$, $p < .001$ in the low envy condition, and $M = 19.0$ ($SD = 8.5$) versus $M = 26.7$ ($SD = 4.3$), $t(25) = 2.52$, $p < .05$ in the high envy condition. Overall, participants offered about half of their claimed pie size. Participants who lied about the pie size offered 48% of their claimed pie size, while participants who did not lie about the pie size offered 45%.

### *Study 2 Discussion*

In Study 2, we induced envy by providing participants with unfavorable social comparison information. In our pilot study, we found that these comparisons significantly influenced feelings of envy. In our main study, we used monetary stakes and found that these unfavorable social comparisons prompted individuals to engage in deception.

This study extends our investigation in two important ways. First, we demonstrate that envy can trigger deceptive *behavior* in a negotiation context. Second, we show that envy can be triggered by merely providing individuals with general background information about a counterpart.

In our study, we found that envy promoted deception by increasing the likelihood that participants would engage in deception, rather than by increasing the magnitude by which participants lied. That is, while participants were more likely to lie to a high achiever than they were to a moderate achiever, deceivers across both conditions lied by similar amounts. This lack of a difference in deception amount, however, may be an artifact of our methods. The range of values, 10–80, was common information, and participants were constrained by the extent to which they could credibly misrepresent the pie size. In other situations, people feeling high envy may lie not only more frequently but also more egregiously.

We note that given the opportunity to deceive, over half of our sample did so by understating the amount they actually received to divide. This frequency is consistent with previous research, which has found that deception is prevalent in negotiations (O'Connor & Carnevale, 1997; Schweitzer & Croson, 1999; Schweitzer, DeChurch, & Gibson, 2005). However, our negotiation domain, an uncertain pie size ultimatum game, may represent a particularly tempting environment for deception. By giving asymmetric information and allowing only one way anonymous communication, our design shifted power to Proposers and provided them an attractive opportunity to

manipulate their counterpart by sending false information. While this does not mitigate our primary findings regarding the effects of envy on deception, it does limit conclusions regarding the general prevalence of deception in negotiation.

An additional finding in this study was that across conditions, participants offered about half of the claimed pie size. Participants who lied about the pie size offered 48% of their claimed pie size, while participants who did not lie about the pie size offered 45%. These percentages are consistent with prior work on ultimatum games in which people typically offer the focal amount of 50% of the pie, to raise the probability that their offer will be accepted (Guth et al., 1982; Roth, Prasnikar, Okuno-Fujiwara, & Zamir, 1991; Thaler, 1988). Thus, deceivers seem to be acting strategically; they first understate the size of the pie and then offer their counterpart a seemingly significant portion (almost half) of this reduced amount, to raise their chances of acceptance.

## General Discussion

In this work, we describe the influence of envy on the use of deception in negotiations. We find that envy increases not only self-reported intentions to use deception, but also its actual use in an experiment with monetary stakes. Our findings add to the growing body of literature on the pervasive influence of emotions on judgment, decision making, and behavior (e.g., Allred et al., 1997; Forgas & George, 2001; Gneezy, 2005; Guth et al., 1982; Loewenstein et al., 1989). In the specific domain of negotiations, this research contributes by identifying a relatively understudied discrete emotion, envy, which results from unfavorable social comparisons and can impact interpersonal behavior.

Ultimately, our results have important implications for theoretical models of ethical decision making. Theoretical models of deception, including Lewicki's (Lewicki, 1983; Lewicki et al., 2003) and others' (e.g., Alingham & Sandmo, 1972; Jones, 1995; Jones & Ryan, 1997, 2001; Trevino, 1986), have largely ignored the role of emotions as potential triggers of unethical behavior. Our results, along with emerging research (Schweitzer & Gibson, 2007), demonstrate that this is an important omission. Consistent with a cost-benefit framework of deception (e.g., Lewicki, 1983; Lewicki et al., 2003), we find that envy promotes the use of deception both by increasing its psychological benefits and by reducing its psychological costs.

Our results have practical implications as well. In some cases, past accomplishments are beneficial for negotiators. Specifically, if past achievements afford negotiators advantageous sources of power (e.g., positional power or referent power; Greenberg & Baron, 2003; Yukl & Falbe, 1991), they can negotiate more assertively and attain better outcomes (Kim et al., 2005; Lewicki et al., 2003; Mannix, 1993; Pinkley, Neale, & Bennett, 1994; Thompson, 2005). The present results suggest, however, that past successes may sometimes be a liability rather than an asset. We demonstrate an adverse consequence of past success, being envied. Consequently, while prior work suggests that negotiators should be modest about their surplus *after* completing a negotiation (e.g., Novemsky & Schweitzer, 2004), results from this work suggest that individuals should be modest *before and during* a negotiation about issues unrelated to the negotiation itself.

In the present work, we also consider issues related to gender. Across genders in both of our studies, we aroused envy to a similar extent. Moreover, and most importantly, our primary notion that envy promotes deception applies both to males and females. Prior work has found that men are typically more likely to engage in deception than are women (Lewicki & Robinson, 1998; Robinson et al., 2000). We found a similar pattern of results in Study 1, where across conditions men reported higher intentions to engage in deception than women, but not in Study 2. Quite possibly, the gender similarity we find in Study 2 is a result of our behavioral (rather than our intentional) measure, and of the lack of ambiguity in the straightforward lying measure we used in Study 2—namely, misrepresenting the pie size, compared to the wide range of tactics we measured in Study 1. Prior work by Robinson et al. (2000) shows that gender differences with respect to ethical behavior were more apparent for marginally unethical acts, perhaps akin to our measures in Study 1, than they were for clearly unethical acts.

In our studies we induced envy in two different ways. In our first study, we induced envy by describing an unfavorable outcome from a workplace competition. We found that envy did not require perceived violations of procedural fairness. In our second study, we induced envy by providing participants with unfavorable social comparison information. Across many domains, people experience both unfavorable outcomes and unfavorable social comparisons. Although our studies focused on the influence of envy in negotiation settings, our findings have implications for a wide range of social interactions. For example, although little research has considered workplace envy, we postulate that envy is likely to pose an important workplace problem (Mouly & Sankaran, 2002; Vecchio, 1995, 2000). In the workplace, formal competitive systems, such as performance reviews and promotions, as well as other social interactions, such as negotiations, are likely to cue social comparisons. When co-workers engage in upward social comparisons they are likely to experience envy, and our results demonstrate that even *fair* reward systems can trigger envy.

In our work, we focused on the psychological costs and benefits of engaging in deception. We acknowledge, however, that other aspects of the negotiation process may also influence behavior. For example, participants in our studies may have been motivated to engage in deception to do better than their counterpart or to earn more money. Although we demonstrate in mediation analysis in Study 1 that lower psychological costs and greater psychological benefits motivate deception, we cannot rule out the possibility that other motivations may also influence the deception decision process.

Prior work has identified a number of moderators of envy. These moderators are likely to influence the relationship between envy and deception. For example, prior work has found that negative attitudes toward high achievers occur more intensely when individuals believe that envied others do not deserve their rewards (e.g., Feather & Sherman, 2002; Smith, 1991; Smith et al., 1994) and when individuals themselves have low rather than high self-esteem (e.g., Feather, 1989, 1991). Future work could explore these moderators as well as individual differences related to dispositional envy and to findings that some individuals are prone to feeling envy more acutely than are others (Smith et al., 1999).

Organizational characteristics, such as competitive reward system and interdependence are also likely to moderate the influence of envy on deception. Previous work

by Vecchio (2000) suggests that workplace envy is positively correlated with the existence of competitive reward systems, and our results suggest that increasing the likelihood that competitive reward systems will be viewed as fair may not be sufficient to curtail the harmful consequences of envy. Vecchio (2000) also found a correlation between envy and job interdependence. Employees who operate autonomously experience less envy. Thus, creating conditions of high interdependence among employees may not only increase the prevalence of envy, but it may also exacerbate its harmful consequences.

The literature on antecedents of unethical and inappropriate organizational behavior suggests that organizational culture and disciplinary procedures may also play a significant moderating role in curtailing the harmful consequences of envy. Establishing clear disciplinary procedures can effectively deter many forms of undesirable workplace behavior (Trevino & Weaver, 1998). Similarly, creating an organizational culture that promotes ethics has been found to increase employees' sensitivity to potentially unethical behavior and to discourage them from engaging in it (Jansen & Von Glinow, 1985).

Another extension of our work involves exploring the extent to which feelings of envy towards a particular individual generalize and impact behavior toward unrelated individuals. In the context of organizations, for example, it is possible that the harmful enactment of envy toward a peer with a similar or higher rank will be shifted toward more convenient victims, such as subordinates.

From a methodological perspective, one limitation of our work is the use of the ultimatum game. The uncertain pie version of the ultimatum game that we used afforded us an opportunity to study deception in a simple, asymmetric information context. This framework, however, is a relatively abstract representation of what employees actually face within an organization. Although games such as the ultimatum game are simplistic and artificial, they are highly useful for testing specific principles and predictions in the clearest possible way, and for measuring how people feel and behave with regard to allocations of money (or other assets) between themselves and others (Camerer, 2003). Notwithstanding, we acknowledge that the situation we created with this method did not involve the social richness and the long-term economic costs that deception in many real life negotiations may entail, and consequently, we need to be cautious about generalizing our results to a broader set of negotiation situations. Perhaps the most interesting extension of this work is to explore the relationship between envy and deception within the context of existing relationships.

Another limitation of our methods is our reliance on explicit measures of envy and deception. Both of these constructs are self and socially sanctioned. As a result, participants in our studies may have been reluctant to admit to their feelings of envy, and hesitant to engage in deception or even report their willingness to do so. For example, in our second study, we provided participants with information and then directly asked them to record their claims about that information. Although we attempted to promote feelings of anonymity, future research should consider the use of more implicit measures and explore the role of transparency in moderating the relationship between envy and deception.

## Conclusion

Results from this work describe the influence of envy on the decision to use deception. We find that people are more likely to lie to an envied counterpart than they are to lie to a nonenvied counterpart. Our findings highlight the role of an understudied, discrete emotion, envy, on an important behavior, deception. Our results have implications for theoretical models of ethical decision making. In particular, they highlight the role of emotions in unethical decision making, a link that has been largely ignored by prior research. In general, envy is likely to be triggered by a number of social and organizational settings in which individuals are likely to be outperformed and to confront unfavorable social comparisons. Our results demonstrate that these experiences have important emotional and behavioral consequences.

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# Appendix 1

## Study 1—Deception Measure (adapted SINS Scale)

This questionnaire includes a list of tactics that negotiators sometimes use. For each tactic, please rate the likelihood that you would use it during your negotiations with Dan from ''not at all likely'' (score of 1) to ''very likely'' (score of 7). Circle a number.

1. Promise that good things will happen to Dan if he gives you what you want, even if you know that you cannot (or will not) deliver these things when his cooperation is obtained.
2. Intentionally misrepresent information to Dan in order to strengthen your negotiation arguments or positions.
3. Make an opening demand that is far greater than what you really hope to settle for.
4. Convey a false impression that you are in absolutely no hurry to come to a negotiated agreement, thereby trying to put time pressure on Dan to concede quickly.
5. In return for concessions from Dan now, promise to make future concessions which you know you will not follow through on.
6. Deny the validity of information which Dan has that weakens your negotiating position, even though that information is true and valid.
7. Make an opening demand so extreme that it seriously undermines Dan's confidence in his ability to negotiate a satisfactory settlement.
8. Guarantee that the rest of the managers and employees in your department, whom you represent in this negotiation, will uphold the settlement that you reach, although you know that they will likely violate the agreement later.

# Appendix 2

In Study 1, we used the following items for measuring psychological costs and benefits of deception (as potential mediators):

(a) *Psychological cost and justifiability of deception:*

1. ''It is justifiable for me to lie to Dan.''
2. ''If I lied to Dan during our negotiation, it would bother me a lot afterward.'' (reverse item)
3. ''Dan is probably the type to only look out for himself.''
4. ''Dan is the type I would like to avoid spending time with if I can.''
5. ''I would bet that Dan has done some brownnosing at work.''

(b) *Psychological benefits of deception—three items:*

1. ''I want to compliment Dan on the work he has done.'' (reverse item)
2. ''I would really like to make Dan mad.''
3. ''Even if my outcome stayed the same, it would make me happy if Dan did poorly in the negotiation.''

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