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## Bringing ethics into focus: How regulatory focus and risk preferences influence (Un)ethical behavior

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### ABSTRACT

In four laboratory studies, we find that regulatory focus induced by situational cues (such as the framing of an unrelated task) or primed influences people's likelihood to cross ethical boundaries. A promotion focus leads individuals to be more likely to act unethically than a prevention focus (Studies 1, 2, and 3). These higher levels of dishonesty are explained by the influence of a person's induced regulatory focus on his or her behavior toward risk. A promotion focus leads to risk-seeking behaviors, while a prevention focus leads to risk avoidance (Study 3). Through higher levels of dishonesty, promotion focus also results in higher levels of virtuous behavior (Studies 2 and 3), thus providing evidence for compensatory ethics. Our results also demonstrate that the framing of ethics (e.g., through an organization's ethics code) influences individuals' ethical behavior and does so differently depending on an individual's induced regulatory focus (Study 4).

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### Introduction

From Enron to the recent world-wide financial crisis, corporate scandals and other instances of unethical behavior within organizations are becoming common topics covered by the media. These examples of ethical failures add to cases of employee misconduct, such as theft of office supplies, fraudulent expense reports or injury claims, and falsified overtime, which are costing US companies an estimated fifty billion dollars annually (see Mishra & Prasad, 2006; Weber, Kurke, & Pentico, 2003). In the wake of such widespread unethical conduct, many organizations have attempted to instill ethical values in their employees through ethics training or formal policy documents such as ethics codes (Weaver, Treviño, & Cochran, 1999a; Weaver, Treviño, & Cochran, 1999b). But these efforts vary in the degree to which they align with a company's general approach to its business.

Most companies encourage managers and employees to focus on promoting positive economic outcomes (e.g., Baetz, 1998). For instance, leaders may stress the importance of reaching specific financial goals within a given amount of time, or they may administer bonuses to employees who exceed their sales targets. By contrast, ethics initiatives tend to be packaged primarily as a set of constraints, compliance schemes, and violations to be prevented (Paine, 1994; Treviño, Weaver, Gibson, and Toffler, 2001). For

instance, the codes of conduct of many modern companies include statement such as “employees must avoid conflicts of interests” or “employees may not improperly use any company assets.” Does this subtle difference in the framing of ethics versus business objectives influence employee behavior?

The current research addresses this question by examining whether the framing of ethics within organizations influences individuals' likelihood to behave dishonestly. As a first step in our investigation, we examine whether the framing of ethics influences individuals' ethical behavior and their preferences toward risk. We distinguish between two ways to frame ethical conduct: promotion of being ethical (i.e., the promotion of a positive and desirable state) and prevention of being unethical (the prevention of a negative or undesirable state). We build on psychological research on regulatory focus (Higgins, 1997), which suggests that people focus more heavily either on the promotion of positive outcomes or on the prevention of negative outcomes when attaining goals (Higgins, 1996; Higgins, Roney, Crowe, & Hymes, 1994). While subtle, these two ways of framing ethical conduct may produce significant differences in people's likelihood to behave dishonestly—with important consequences for organizations. Our interest in this paper is not the study of people's disposition toward prevention or promotion focus. Instead, we are interested in examining the influence of an individual's regulatory focus when induced or primed by situational factors such as how the task has been framed.

This research contributes to a broader program of study concerning the psychology of unethical behavior (e.g., Messick,

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1995; Messick, 1996; Messick & Bazerman, 1996; Messick & Tenbrunsel, 1996; Tenbrunsel & Messick, 1996). Similar to prior research in this domain, we focus on how subtle changes in the environment influence the ethical behavior of individual actors by inducing a prevention or a promotion focus in individuals. Several models of unethical behavior (e.g., Hegarty & Sims, 1978; Treviño, 1986; Treviño & Youngblood, 1990) suggest that misconduct is influenced by a person-situation interaction. Specifically, the tendency of people to engage in unethical behavior depends on both characteristics of the environment and characteristics of the individual. For instance, prior work has shown that both personal characteristics (e.g., stage of moral development or concern for self-presentation) and contextual factors (such as the use of codes of ethics) influence ethical behavior (Weaver et al., 1999a, 1999b). In this vein, we study how an individual's regulatory focus (when induced by subtle situational forces, such as the framing of the task) interacts with an organization's framing of ethics (e.g., through an ethics code). Furthermore, we examine whether additive effects may occur when the two factors are consistent with one another (e.g., both the employee and the organization are focused on promoting positive outcomes or on preventing negative ones). Thus, our studies are designed to complement and extend existing knowledge about the conditions under which even good people are likely to cross ethical boundaries and the conditions under which they are likely to hew more closely to moral standards.

## Theoretical background

### *The psychology of regulatory focus*

Regulatory focus theory (Higgins, 1996; Higgins, 1997) distinguishes between two strategies for goal attainment: promotion focus or prevention focus. Promotion concerns revolve around attainment; they are represented as pursuing hopes and aspirations that ensure advancement and are experienced as the achievement of positive outcomes (i.e., gains; Higgins, 1997). Because of this positive outcome focus, the strategic inclination of people with a promotion focus is to approach a goal in a state of eagerness (see Crowe & Higgins, 1997; Higgins et al., 1994). In contrast, prevention concerns revolve around maintenance; they are represented as upholding responsibilities and obligations that are necessary to ensure security and are experienced as ensuring protection from negative outcomes (i.e., non-losses; Higgins, 1997). Because of this negative outcome focus, the strategic inclination of people with a prevention focus is avoidance in a state of vigilance. Previous research has shown that these different strategic motivations are independent from performance expectancies (see Shah & Higgins, 1997; Shah, Higgins, & Friedman, 1998) and can be induced temporarily by momentary situations (Brockner & Higgins, 2001; Crowe & Higgins, 1997; Liberman, Idson, Camacho, & Higgins, 1999).

We contend that an individual's regulatory focus influences that person's ethical behavior in a given moment. A person's regulatory focus may indeed highlight the potential benefits and costs of acting dishonestly. Together with the amount to be gained from cheating and the expected punishment, the risk of being caught cheating is a central input in rational crime theory (Allingham & Sandmo, 1972; Becker, 1968). According to this framework, the individual engages in a cost-benefit calculation that leads to an ultimate decision about dishonesty (support for this perspective is evident in work by Hill and Kochendorfer (1969), Steininger, Johnson, and Kirts (1964), Tittle and Rowe (1973), and Vitro and Schoer (1972)). Thus, depending on the perceived risk of being caught, individuals may make different decisions about acting ethically.

Previous studies have demonstrated that regulatory focus affects risky decision-making (Higgins, 2002), risky information

processing style (Förster, Higgins, & Bianco, 2003), and outcome categorization under conditions of uncertainty (Molden & Higgins, 2004). For instance, Grant and Higgins (2003) have shown that promotion focus is related to being eager, risky, and oriented towards attaining gains as positive outcomes, whereas prevention focus is related to being careful, cautious, and oriented toward avoiding losses as negative outcomes. Furthermore, Crowe and Higgins (1997) have found that acting from a promotion focus induces an exploratory risk-seeking behavior, whereas acting from a prevention focus produces a conservative risk-avoidance behavior (Higgins, 2002).

Given the influence of regulatory focus on risk tendencies, we hypothesize that regulatory focus will also affect an individual's likelihood to behave dishonestly. We focus on situations in which cues in the environment, such as the framing of the task or of the incentive scheme, induce either a promotion or a prevention focus in individuals. We refer to such situations by using the label "induced regulatory focus." Across our studies, we focus on situations in which acting dishonestly serves an advancement function – i.e., participants gain money from cheating by misreporting task performance. In such situations, we expect individuals with a promotion focus to be more likely to behave dishonestly compared to individuals with a prevention focus (Hypothesis 1). We also expect individuals toward risk to mediate the effect of an individual's induced regulatory focus on his or her unethical behavior. Specifically, people with a promotion focus will be more risk seeking compared to people with a prevention focus, and such risk-seeking behavior will explain the higher levels of dishonesty for people with a promotion focus (Hypothesis 2).

### *Compensatory ethics*

We also predict that an individual's induced regulatory focus will influence the tendency of that individual to engage in "compensatory ethics" (see Zhong, Ku, Lount, & Murnighan, 2010). Early studies on moral psychology and ethical decision making mainly focused on individuals' moral reasoning and reactions to isolated events. By contrast, recent studies have highlighted the importance of a global sense of morality (e.g., Zhong, Liljenquist, & Cain, 2009; Zhong et al., 2010). These theories suggest that our moral behaviors result from an implicit calculation of self-perception, in which moral self-image is boosted by good behaviors and dampened by bad ones (Mazar & Zhong, 2010). People desire to have a positive moral self-image and see themselves as ethical (Aquino & Reed, 2002; Tenbrunsel, 1998), but struggle to maintain this positive self-image when facing ethical or social dilemmas involving conflicts of interest. As a result, whenever their moral self-image is threatened, people are likely to behave ethically.

Consistent with these theories of compensatory ethics, we expect that a previous unethical act (which we hypothesized to be more likely for people with a promotion focus than for people with a prevention focus) will motivate a subsequent ethical action. Prior research provides some support for this claim. For instance, Carlsmith and Gross (1969) noted that compliance with requests for help increases after moral values have been violated, even when such compliance in no way rectifies the previous damage. Similarly, Wallington (1973) found that people who violate moral rules actively inflict punishment upon themselves in other domains. Furthermore, moral cleansing theory (Tetlock, Kristel, Elson, Green, & Lerner, 2000) also provides evidence for moral-compensatory motivation. This theory suggests that when individuals violate their own values, they are likely to engage in moral cleansing that reaffirms core values and loyalties (for empirical support of this theory, see Zhong & Liljenquist, 2006).

Thus, if induced promotion focus does in fact lead to higher levels of individual dishonesty compared to a prevention focus, as we

hypothesized, then we expect induced promotion focus also to lead to higher levels of virtuous behaviors following unethical acts (Hypothesis 3). We also expect moral compensation to mediate this effect, such that the link between induced promotion focus and ethical behavior is explained by the higher level of dishonesty for people with a promotion rather than a prevention focus (Hypothesis 4).

#### *Framing of ethics within organizations*

A person's regulatory focus can be shaped not only by his or her developmental history, but also by his or her environment (e.g., the organization in which the person works). Indeed, research on regulatory focus has conceived promotion and prevention focus both as a chronic state (individual differences approach), and as a momentary product of the situation where certain contexts make one regulatory focus predominant over the other. For instance, task instructions that emphasize gains tend to induce a promotion focus, while task instructions that emphasize losses tend to induce a prevention focus. These types of instructions and framing techniques which induce regulatory focus could be determined by organizational members. Through their mission statements, policies, incentive schemes, and cultures, organizations can shape managers' and employees' regulatory focus, which in turn influences their ethical behavior. As suggested by our previous hypotheses, we predict that situational forces that cast the task or the incentive scheme in a certain light (either prevention or promotion focus) have a strong influence on individuals' ethical behavior.

We suggest that an organization's framing of ethics can then exacerbate or reduce the effects of situational forces shaping a person's regulatory focus in promoting ethical behavior depending on whether the two are consistent with one another. In other words, we suggest that an organization's framing of ethics can then amplify or reduce the effects upon ethical behavior of the regulatory focus induced or primed by other organizational features. As we discussed for individuals' frame of ethical conduct, we distinguish two main ways in which organizations can frame ethics: ethics can be construed in terms of aims to be advanced (organizational promotion-focus frame), or in terms of violations to be prevented (organizational prevention-focus frame). We suggest that these different framings of ethics in organizations, which can be made explicit through mission statements, guidelines, or organizational policies, have a direct effect on individuals' ethical behavior within the firm.

We propose that when an organization's frame of ethics and its members' induced regulatory focus are consistent (they both focus on the promotion of positive outcomes or they both focus on the prevention of negative outcomes), it will be easier for individuals to process the "organizational message" used to frame ethics. Under these conditions of consistency, people have an "it just feels right" experience that they might transfer to other judgments. These feelings are similar to those experienced in the case of "regulatory fit," which refers to a consistency between a goal (e.g., the aspiration to behave ethically) and one's strategy for attaining that goal (e.g., eagerly engaging in some ethical behavior) (see Cesario, Grant, & Higgins, 2004; Higgins, 2000). For instance, people judge the resolution of a conflict to be more correct when the manner of resolution is consistent with their regulatory focus (Camacho, Higgins, & Luger, 2003).

Consequently, when an organizational ethics frame is consistent with an individual's induced regulatory focus, employees should easily process the ideas conveyed in an organization's framing of ethics and their behavior should be more affected than it would be when the two are inconsistent. That is, consistency between an organization's ethics frame and an individual's induced regulatory focus has additive effects in promoting ethical behavior

or preventing unethical acts. This reasoning leads us to hypothesize that individuals' levels of dishonesty will be the highest when individuals' regulatory focus *and* the organizational frame are centered around promotion of positive outcomes, and the lowest when individuals' regulatory focus *and* the organizational frame are centered around prevention of negative outcomes (Hypothesis 5).

We test these predictions in four laboratory studies where we manipulate individuals' framing of ethical conduct through situational cues inducing regulatory focus (Studies 1–3) as well as an organization's framing of ethics (Study 4).

#### **Study 1**

In Study 1, we took the first step in our empirical exploration of the influence of regulatory focus on unethical behavior by examining how prevention and promotion focus affect the likelihood that individuals will cross ethical boundaries. We manipulated regulatory focus using a procedure developed by Friedman and Förster (2001) and used in various studies to activate promotion versus prevention focus (see e.g., Brockner, Higgins, & Low, 2004; Chernev, 2004; Förster, Friedman, Ozelsel, & Denzler, 2006; Janoff-Bulman, Sheikh, & Hepp, 2009; Smith, Wagaman, & Handley, 2009; Wan, Hong, & Sternthal, 2009). Prior work has manipulated regulatory focus by instructing participants that actual, promotion-related outcomes (e.g., gains and non-gains) or prevention-related outcomes (e.g., losses and non-losses) were contingent on their task performance. In Friedman and Förster's work, instead, regulatory focus is activated through an initial task that simply and unobtrusively activates the rudimentary representations associated with striving for nurturance or security (Friedman & Förster, 2001). We used this manipulation to test the hypothesis that a person's induced regulatory focus influences her likelihood to behave unethically when given the opportunity to do so.

#### *Pilot study*

To test the validity of this manipulation for regulatory focus, we conducted a pilot study on a non-overlapping group of participants. Sixty-nine undergraduate and graduate students at a university in the United States ( $M_{age} = 22.35$ ,  $SD = 3.60$ ; 49% male) participated in this pilot study. Participants had to complete a pencil-and-paper maze. Following Friedman and Förster (2001), in both conditions we depicted a cartoon mouse trapped inside the maze and instructed participants to "find the way for the mouse". In the promotion-cue condition, a piece of Swiss cheese was shown lying outside the maze, in front of a brick wall containing an exit for the mouse. Completion of this version of the maze activated both the semantic concept of "seeking nurturance" (represented by available food) and the procedural representation coding movement toward the desired end state of nurturance (Friedman & Förster, 2001). In the prevention-cue condition, instead of cheese, an owl was depicted hovering above the maze, presumably ready to swoop down and capture the mouse unless it could escape the maze and retreat through the entryway. Completion of this version of the maze activated the semantic concept of "seeking security" as well as the procedural representation coding movement toward the desired end state of safety (Friedman & Förster, 2001). In short, in the promotion-focus condition, the motivation to leave the maze was to get to the cheese, whereas in the prevention-focus condition the motivation was to escape from an owl that was lurking overhead. All participants completed this task successfully. Following prior research (e.g., Wan et al., 2009), we asked participants to describe their goals when taking the perspective of the mouse and used their descriptions as a manipulation check.

To assess the effectiveness of this regulatory focus manipulation, participants' responses pertaining to their goal in taking the perspective of a mouse were coded by two judges. The two judges recorded the total number of responses that implied a promotion or a prevention focus. For example, "my goal was to get to the cheese fast and eat it!" was coded as indicating a promotion focus, and "my goal was to solve the maze without becoming the owl's meal" was coded as representing a prevention focus. The two judges agreed in their classification 96% of the time. The two judges discussed any disagreement until they were resolved.

We conducted two separate within-subjects ANOVAs to examine the effect of the regulatory focus manipulation on the number of participants' responses that implied a promotion or a prevention focus. The results indicated that those primed with a promotion focus listed more promotion-oriented responses ( $M = .82$ ,  $SD = .39$ ) than prevention-oriented responses ( $M = .21$ ,  $SD = .41$ ;  $F(1, 33) = 30.51$ ,  $p < .001$ ,  $\eta^2 = .48$ ). In contrast, those primed with a prevention focus reported more prevention-oriented responses ( $M = .69$ ,  $SD = .47$ ) than promotion-oriented responses ( $M = .09$ ,  $SD = .28$ ;  $F(1, 34) = 29.75$ ,  $p < .001$ ,  $\eta^2 = .47$ ). These results suggest that the maze manipulation was successful in inducing regulatory focus.

## Methods

### Participants

Eighty-six undergraduate and graduate students at a university in the United States ( $M_{age} = 22$ ,  $SD = 3.13$ ; 56% male) participated in this study. This sample was used because the procedure involved making a decision—whether or not to over-report performance—that students commonly face and would likely face in their future careers (e.g., whether or not to honestly report hours worked). Participants received \$2 as a show-up fee and \$5 for completing the final questionnaire, and they could earn an additional \$18 throughout the study.

### Procedure

The study employed one between-subjects factor: promotion focus versus prevention focus. Participants were told the study included various tasks that had been combined for convenience. The first task was a modified version of Schweitzer, Ordóñez, and Douma's (2004) anagram task (also used in Gino & Pierce, 2009a; Gino & Pierce, 2009b), in which participants were told to check their own work, thus giving them an opportunity to overstate their performance and engage in unethical behavior. Unbeknownst to participants, we could track whether participants cheated by over-reporting performance. We asked our participants to complete anagrams over six rounds under time pressure. In each round, participants were given a series of seven letters and asked to create as many words as possible. The last series of letters was presented in a different order for each participant so that we could track who cheated and to what extent by comparing workbooks and answer sheets with participants' self-reported performance (the series of letters were printed on both). They were given the goal of creating nine words in 90 s in each round.<sup>1</sup> Each participant had an envelope on his or her desk containing eighteen \$1 bills. They were told they

<sup>1</sup> We conducted a pilot study ( $N = 62$ ) to determine how many words, on average, people can create within a 90-s time limit. In each of six rounds, participants were given 90 s to create words using different combinations of seven letters while following these rules: "Each word must be an English word, three or more letters long, other than a proper noun, made by using each of the seven letters only once per word, and used in only one form." We used the results of the pilot study to identify a performance goal for our main study. As in prior studies that used anagram tasks to investigate goal setting, our goal was set equal to the 90th percentile of performance (e.g., Schweitzer et al., 2004). Specifically, the goal we gave participants was to create nine words in each round. As explained in detail below, this goal was used to determine participants' payoff during the main study.

would receive \$3 in each round in which they reached the goal, and they reported their answers in their workbook. Specifically, once the six rounds had ended, participants were told they would receive a pen of a different color and a Scrabble dictionary so that they could check their work, and then fill out an answer sheet on which they reported their task performance. While the experimenter distributed the scrabble dictionary, participants were asked to engage in a second task.

The second task was a problem-solving task we used to manipulate regulatory focus (the task was developed by Friedman & Förster, 2001). In this ostensibly separate, unrelated task, participants had to complete the pencil-and-paper maze used in our pilot study. Participants were told we were interested in their problem solving skills under time pressure.

Since this manipulation was ostensibly incidental to subsequent measures of dishonesty, as it involved solving a problem for a cartoon rodent, it was unlikely to elicit an "active" regulatory focus, in the sense of a motivation to attain personal nurturance or security. As such, it provided a strong test of our hypothesis that regulatory focus cues may independently influence unethical behavior. Participants were given 2 min to work on the problem-solving task; a pilot study conducted on a non-overlapping group of participants ( $N = 48$ ) showed that participants are able to complete the maze within this time frame.

After the 2 min had passed, participants were asked to return to the anagram task and check their work. They were given 15 min to check their answers and put their work in a recycling box. They were asked to pay themselves from the envelope on their desk according to their performance.

Finally, participants filled out a questionnaire containing personality and demographic questions. We also asked participants to describe the pictures on the maze task that they had completed earlier in the study to determine whether participants remembered the maze correctly. As we expected, all participants accurately recalled the content of the maze drawings (e.g., a mouse seeking a piece of cheese in the promotion-cue condition), suggesting that they had indeed processed the nurturance- or security-related cues.

### Measures

We used several measures of unethical behavior. Our primary measure, the overstatement score, involved coding the difference between participants' actual productivity and their productivity claims, as in Schweitzer et al. (2004) and Gino and Pierce (2009b). For each participant, we computed an overstatement score to represent the fraction of times the participant overstated productivity relative to the number of times he/she missed the goal (and thus had the opportunity to overstate productivity). These scores could range from 0 (i.e., a participant never overstated productivity) to 1 (a participant overstated productivity every time he/she had the chance to do so). We used three alternative measures of unethical behavior for robustness: (1) a dummy variable indicating the participant cheated at least once; (2) the number of rounds overstated; and (3) the average number of words overstated. These measures produce consistent results across our studies.

## Results

Across all four studies, we first conducted analyses that included gender and age as control variables. We found no significant effects for these demographic variables, and we thus report our findings collapsed across demographic groups in each study.

### Performance

Table 1 reports the productivity and misreporting results for the two treatment conditions. We first compared the number of valid

**Table 1**  
Productivity and misreporting results by round and condition, Study 1.<sup>a</sup>

Round	Number of valid words created				Percentage of participants...			
	Promotion Condition		Prevention Condition		Who actually met the goal		Who claimed to meet the goal	
	Mean	SD	Mean	SD	Promotion	Prevention	Promotion	Prevention
1	7.04	1.54	7.37	1.56	8.9	22.0	57.8	26.8
2	6.58	1.76	6.98	1.64	13.3	14.6	40.0	17.1
3	7.73	1.94	7.93	1.92	31.1	39.0	84.4	43.9
4	7.36	2.31	7.76	1.88	22.2	24.4	73.3	46.3
5	7.53	2.34	8.00	1.82	28.9	31.7	71.1	48.8
6	8.87	1.75	9.12	2.51	53.3	51.2	91.1	75.6
Average	7.52	1.94	7.86	1.89	26.3	30.5	69.6	43.1

Note: We found no differences per round in the number of valid words created, nor in the percentage of people who actually met the goal between the promotion and the prevention condition. There was one exception in the case of percentage of people who actually met the goal: in round 1, in the prevention condition the percentage was marginally higher than that in the promotion condition ( $\chi^2(1, N = 86) = 2.85, p = .09$ ). However, the promotion and prevention conditions differed in the percentage of people who claimed to meet the goal in each round (all  $ps < .05$ ).

<sup>a</sup> For the promotion-focus condition  $N = 45$ , while for the prevention-focus condition  $N = 41$ .

words that participants listed in the two conditions. Since our manipulation occurred after participants completed the anagram task, we expected to find no differences in productivity. On average, the number of valid words participants created in the promotion-focus condition was not statistically different from that of participants in the prevention-focus condition ( $M = 7.52, SD = 1.31$  vs.  $M = 7.86, SD = 1.23$ ),  $F(1, 84) = 1.52, p = .22, \eta^2 = .02$ . We also checked whether there were “careless” participants who understated their productivity one or more times and found none.

#### Does regulatory focus motivate unethical behavior?

Consistent with our main prediction, the average overstatement score for participants was significantly higher in the promotion-focus condition ( $M = 0.56, SD = 0.37$ ) than in the prevention-focus condition ( $M = 0.18, SD = 0.28$ ),  $t(84) = 5.28, p < .001$ . Results for the alternative measures of unethical behavior are consistent with these results: a larger number of participants over-reported performance at least once in the promotion-focus condition (82%, 37 out of 45) than in the prevention-focus condition (39%, 16 out of 41),  $\chi^2(1, N = 86) = 16.93, p < .001$ . In addition, both the number of overstated rounds and the average number of over-reported words were higher in the promotion-focus condition ( $M_{\text{rounds overstated}} = 2.60, SD = 1.89$ ;  $M_{\text{words overstated}} = 1.24, SD = 1.05$ ) than in the prevention-focus condition ( $M_{\text{rounds overstated}} = 0.76, SD = 1.18, t(84) = 5.37, p < .001$ ;  $M_{\text{words overstated}} = 0.38, SD = 0.80, t(84) = 4.27, p < .001$ ). Taken together, these results support Hypothesis 1 and suggest that participants were more likely to overstate their performance in the promotion-focus condition than in the prevention-focus condition.

#### Discussion

The results of Study 1 supported the hypothesis that cues associated with a promotion focus, relative to those associated with a prevention focus, are more likely to motivate dishonesty and thus result in higher levels of unethical behavior. These findings suggest that situational cues can trigger a person’s regulatory focus and, in turn, influence her ethical behavior.

#### Study 2

Our second study had two main goals. First, we wanted to replicate the findings of Study 1. Second, we added a new task to the procedure used in our first study, namely a donation task, so that we could investigate the influence of regulatory focus on prosocial behavior. Thus, Study 2 allows us to test Hypotheses 3 and 4.

#### Methods

##### Participants

Sixty-six MBA students ( $M_{\text{age}} = 27, SD = 3.03$ ; 42% male) at a university in United States participated in this study. As in Study 1, participants received \$2 as a show-up fee, \$5 for completing the final questionnaire and had the opportunity to earn an additional \$18 throughout the study.

##### Procedure

The study employed the same design and procedure used in Study 1 but with one main difference. Participants filled out a questionnaire with personality and demographic questions as their final task. The final page of the questionnaire included a brochure about donating money to National Public Radio (NPR). Participants had the opportunity to donate money to NPR by filling out a donation slip and including real dollars in a previously addressed envelope. We varied the office number given in the address on the envelope so that it matched participants’ study ID. Thus, participants had the opportunity to donate some of their earning *after* they had the opportunity to cheat on the anagram task.

##### Results

We first confirmed that all participants accurately recalled the content of the maze drawings.

##### Performance

Table 2 reports the productivity and misreporting results for the two treatment conditions. We did not find statistical differences in the number of valid words participants created between the promotion-focus condition and the prevention-focus condition ( $M = 8.30, SD = 2.16$  vs.  $M = 8.76, SD = 1.97$ ),  $F(1, 64) < 1, p = .38, \eta^2 = .01$ . We also checked whether there were “careless” participants who understated their productivity one or more times and found none.

#### Does regulatory focus motivate unethical behavior?

Consistent with Hypothesis 1, the average overstatement score for participants was significantly higher in the promotion-focus condition ( $M = 0.52, SD = 0.35$ ) than in the prevention-focus condition ( $M = 0.19, SD = 0.31$ ),  $t(59) = 3.84, p < .001$ . Results for the alternative measures of unethical behavior are consistent with these results: a larger number of participants over-reported performance at least once in the promotion-focus condition (73%, 24 out of 33) than in the prevention-focus condition (36%, 12 out of 33),

**Table 2**  
Productivity and misreporting results by round and condition, Study 2.<sup>a</sup>

Round	Number of valid words created				Percentage of participants...			
	Promotion condition		Prevention condition		Who actually met the goal		Who claimed to meet the goal	
	Mean	SD	Mean	SD	Promotion	Prevention	Promotion	Prevention
1	7.27	2.88	7.55	2.68	33.3	42.4	72.7	45.5
2	5.52	2.33	5.42	2.51	12.1	12.1	42.4	21.2
3	9.00	2.40	9.06	2.30	63.6	63.6	78.8	66.7
4	8.12	2.41	9.00	2.41	54.5	63.6	75.8	75.8
5	8.73	3.10	9.55	2.84	48.5	69.7	78.8	75.8
6	11.21	3.38	12.00	3.43	84.8	78.8	93.9	90.9
Average	8.31	2.75	8.76	2.70	49.5	55.0	73.7	62.6

Note: We found no differences per round in the number of valid words created, nor in the percentage of people who actually met the goal between the promotion and the prevention condition. There was one exception: in round 5, in the prevention condition the percentage of people who actually met the goal was marginally higher than that in the promotion condition ( $\chi^2(1, N = 66) = 3.07, p = .08$ ). As for the percentage of people who claimed to meet the goal in each round, we found significant differences in rounds 1 and 2 but not in rounds 3 through 6.

<sup>a</sup> For the promotion-focus condition  $N = 33$ , while for the prevention-focus condition  $N = 33$ .

$\chi^2(1, N = 66) = 8.80, p = .003$ . In addition, both the number of overstated rounds and the average number of over-reported words were higher in the promotion-focus condition ( $M_{\text{rounds overstated}} = 1.45, SD = 1.39; M_{\text{words overstated}} = 1.18, SD = 1.03$ ) than in the prevention-focus condition ( $M_{\text{rounds overstated}} = 0.45, SD = 0.67, t(64) = 3.72, p = .003; M_{\text{words overstated}} = 0.66, SD = 0.97, t(64) = 2.09, p < .05$ ). Taken together, these results are consistent with the results of Study 1 and show that regulatory focus influenced participants' likelihood to overstate their performance.

#### Does regulatory focus motivate virtuous behavior?

Hypothesis 3 predicted that promotion focus would lead to higher levels of virtuous behaviors following unethical acts. Consistent with this hypothesis, a larger number of participants donated some money to NPR in the promotion-focus condition (30%, 10 out of 33) than in the prevention-focus condition (6%, 2 out of 33),  $\chi^2(1, N = 66) = 6.52, p < .02$ . In addition, the average amount of money participants donated was higher in the promotion-focus condition ( $M = \$0.79, SD = 1.32$ ) than in the prevention-focus condition ( $M = \$0.12, SD = 0.55$ ),  $t(64) = 2.67, p < .01$ .

#### Compensatory ethics

Hypothesis 4 predicted that the link between induced promotion focus and ethical behavior would be explained by the higher level of dishonesty for people with a promotion rather than a prevention focus. To examine whether the level of cheating on the anagram task (as measured by the overstatement score) mediated the effect of regulatory focus on prosocial behavior (as measured by the amount participants donated to NPR), we followed the steps recommended by Baron and Kenny (1986). After controlling for overstatement score, the effect of the regulatory focus manipulation on prosocial behavior was reduced to non-significance (from  $\beta = .33, t = 2.65, p = .01$  to  $\beta = .06, t < 1, p = .62$ ), and the overstatement score significantly predicted higher prosocial behavior ( $\beta = .60, t = 5.24, p < .001$ ). Including the overstatement score increased variance explained significantly by 28% from  $r^2 = .11$  to  $r^2 = .39, F(1, 58) = 27.46, p < .001$ .

To test whether the size of the indirect effect of the regulatory focus manipulation on prosocial behavior through the level of cheating differed significantly from zero, we utilized a bootstrap procedure to construct bias-corrected confidence intervals based on 1000 random samples with replacement from the full sample, as recommended by methodologists and statisticians (MacKinnon, Fairchild, & Fritz, 2007; Shrout & Bolger, 2002). The size of the indirect effect from the full sample was .58, and the 95% bias-corrected confidence interval excluded zero (.22, 1.17). Thus, the level of

cheating mediated the effect of regulatory focus on prosocial behavior. This result supports Hypothesis 4.

We conducted additional analyses to further examine the effects of cheating on donation behavior. Thirty-one percent (11/36) of the participants who cheated on the anagram task donated money, compared to only about 3% (1/30) of the participants who did not cheat,  $\chi^2(1, N = 66) = 8.15, p < .01$ . This result provides evidence for compensatory ethics. However, as in the case of our previous analyses testing Hypothesis 4, it is possible that another mechanism accounts, at least in part, for the link between promotion focus and prosocial behavior. Recent research (Gino, Schweitzer, Mead, & Ariely, in press) has demonstrated that resisting the temptation to cheat consumes self-regulatory resources. When self-regulatory resources are consumed, people feel depleted and they are more likely to behave unethically (Gino et al., in press; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009). In this case, that would translate in being more likely to keep the money for themselves instead of donating part of their payoff in the donation task. Thus, the link between cheating and subsequent prosocial behavior could be the result of depleted self-regulation resources rather than compensatory ethics. We return to this issue in the general discussion.

#### Discussion

The results of our second study provide further support for our predictions that cues associated with a promotion focus, relative to those associated with a prevention focus, motivate dishonesty and also influence prosocial behavior. In addition, consistent with the idea of compensatory ethics (Zhong et al., 2009), we find that the effect of regulatory focus on prosocial behavior is mediated by the level of cheating on the anagram task.

#### Study 3

Study 3 had two main goals. The first goal was to better understand the process through which induced regulatory focus influences dishonest behaviors as well as prosocial behaviors, thus testing Hypothesis 2. We focused on risk attitudes as a potential mediator for the relationship between regulatory focus and unethical behavior. The second goal of Study 3 was to replicate the effects found in Studies 1 and 2 by using a different manipulation for regulatory focus. In this case, we eliminated the maze task and manipulated regulatory focus through a writing task.

## Methods

### Participants

Eighty-two college students at a university in the United States (48% male;  $M = 21.02$ ,  $SD = 1.93$ ) participated in the study for a maximum payment of \$22. Participants received a \$2 show-up fee and had the opportunity to earn an extra \$20.

### Procedure

The study included two tasks: a problem-solving task and a writing task. For the problem-solving task, participants received an envelope that contained ten dollars (91-dollar bills and four quarters), along with two sheets of paper. The first was a worksheet with 20 matrices, each with a set of 12 three-digit numbers (e.g., 7.84; Mazar, Amir, & Ariely, 2008). The second was a collection slip on which participants were to report their performance and answer demographic questions. On the back of the collection slip we included instructions of the task and a different matrix as an example.

Participants were told that they would have 5 min to find two numbers per matrix that added up to 10. For each pair of numbers correctly identified, they would keep \$1 from their supply of money; they were also asked to leave the remaining amount in the envelope and drop it in a designated box along with the collection slip. Note that 5 min is not enough time to solve all 20 matrices. In previous studies (Gino, Ayal, & Ariely, 2009; Mazar et al., 2008) people were able to find 7 of the 20 pairs on average. In addition, there was no apparent identifying information anywhere on the two sheets, so results seemed anonymous. Thus, participants had both an incentive and opportunity to over-report their performance to earn more money.

One of the three-digit numbers of the matrix used as an example on the back of the collection slip was different for each participant and was equal to one of the three-digit numbers of a matrix in the test sheet. This allowed us to match the worksheet with the collection slip of each participant and compute the difference between self-reported performance and actual performance (see Zhong, Bohns, & Gino, 2010 for the same approach). Positive differences indicate that the participants over-reported their performance and cheated on the task. This was our dependent variable.

After the 5-min task, participants were randomly assigned to one of two conditions: promotion focus vs. prevention focus. In both conditions, participants spent about 10 min writing an essay to prime their regulatory focus. In the promotion-focus condition, they were asked to think about and write down their past and current hopes, aspirations, and dreams. In the prevention-focus condition, they were asked to think about and write down their past and current duties, obligations and responsibilities (Freitas, Liberman, & Higgins, 2002; Lockwood, Jordan, & Kunda, 2002; Pham & Avnet, 2004; Wang & Lee, 2006; Zhao & Pechmann, 2007). Upon completion of the writing task, participants filled out our measure of risk attitudes ( $\alpha = .82$ ) together with some unrelated questions used as fillers.

In addition, hidden in the filler questions, participants responded to two questions designed to check the adequacy of the regulatory focus manipulation: “To what extent are you going to focus on avoiding negative outcomes going forward?” and “To what extent are you going to focus on achieving positive outcomes going forward?” Responses were on 7-point scales (1 = not at all; 7 = very much). Similar manipulation checks have been used in prior research (see, for instance, Galinsky, Leonardelli, Okhuysen, & Mussweiler, 2005).

Then, they engaged in the final part of the problem-solving task. Participants in both conditions were asked to write down the number of correctly solved matrices on the collection slip and dropped

it with the remaining money in a box located in the room. They also dropped their test sheet into a recycling box.

### Risk attitudes measure

We measured risk attitudes by asking participants to complete a few items from Weber, Blais, and Betz's (2002) Domain-specific risk-attitude (DOSPERT) scale after the regulatory focus manipulation. The DOSPERT assesses willingness to engage in risky decision-making across a variety of domains (e.g., social, recreational, health, safety, gambling, ethical, and investments). Supporting the use of a domain-specific measure of risk, research has demonstrated that risk-taking is highly domain specific (Hanoch, Johnson, & Wilke, 2006; Weber et al., 2002). In addition, research has provided evidence for the validity of this measure by demonstrating that it is related to sensation seeking, dispositional risk-taking, intolerance for ambiguity, social desirability, performance on gambling tasks, and risky health decisions (see Blais & Weber, 2006; Weber et al., 2002). As such, the DOSPERT has been described as one of the most useful measures of risk propensity across a number of everyday situations (Harrison, Young, Butow, Salkeld, & Solomon, 2005). Here we focused on the ethics subscale of the DOSPERT scale and modified the items included in the original scale to capture the state nature of the risk behaviors in which we were interested (see Appendix A for a list of the items used).

## Results

### Manipulation check

Participants primed with a prevention focus were more concerned about avoiding negative outcomes ( $M = 4.95$ ,  $SD = 1.69$ ) than achieving positive outcomes ( $M = 3.44$ ,  $SD = 1.29$ ;  $F(1, 40) = 20.14$ ,  $p < .001$ ,  $\eta^2 = .34$ ), whereas those primed with a promotion focus were more concerned about achieving positive outcomes ( $M = 4.59$ ,  $SD = 1.36$ ) than avoiding negative outcomes ( $M = 3.37$ ,  $SD = 1.18$ ;  $F(1, 40) = 17.54$ ,  $p < .001$ ,  $\eta^2 = .31$ ). These results suggest that our manipulation of regulatory focus was successful.

### Actual and self-reported performance

A *t*-test revealed that there were no significant differences in actual performance between the two conditions ( $M = 7.59$ ,  $SD = 2.12$  vs.  $M = 7.12$ ,  $SD = 2.26$ ),  $t(80) < 1$ ,  $p = .34$ . Yet, we found significant differences in self-reported performance,  $t(80) = 3.01$ ,  $p < .01$ . Participants in the prevention-focus condition reported a lower number of correctly solved matrices ( $M = 8.63$ ,  $SD = 3.41$ ) than participants in the promotion-focus condition ( $M = 11.02$ ,  $SD = 3.77$ ). The same result holds when we examined the average number of matrices by which participants overstated their performance ( $M = 3.44$ ,  $SD = 3.26$  vs.  $M = 1.51$ ,  $SD = 2.01$ ),  $t(80) = 3.22$ ,  $p < .01$ , or the percentage of participants who overstated their performance (61% vs. 39%),  $\chi^2(1, N = 82) = 3.95$ ,  $p < .05$ . Taken together, these results provide further evidence for a link between individuals' regulatory focus and their likelihood to overstate performance as predicted by Hypothesis 1.

### Regulatory focus and risk perception

We also predicted that promotion focus would be more likely to induce risk-seeking behaviors than prevention focus. Consistent with this prediction, participants in the promotion-focus condition reported feeling more risk seeking during the study ( $M = 4.54$ ,  $SD = 1.14$ ) than those in the prevention-focus condition ( $M = 3.75$ ,  $SD = 1.12$ ),  $t(80) = 3.15$ ,  $p < .01$ . We examined whether this attitude towards risk mediated the effects of promotion-focus on dishonest behavior (Baron & Kenny, 1986). In the regressions, we used reported performance as the dependent variable and controlled for actual performance. The effect of promotion-focus was reduced

to non-significance (from  $\beta = .25$ ,  $p < .01$ , to  $\beta = .06$ ,  $p = .28$ ) when risk seeking was included in the equation, and risk seeking was a significant predictor of dishonest behavior ( $\beta = .59$ ,  $p < .001$ ). A bootstrap analysis showed that the 95% bias-corrected confidence intervals for the size of the indirect effect excluded zero (0.39, 2.46), suggesting a significant indirect effect (MacKinnon et al., 2007). Consistent with Hypothesis 2, these results show that participants' reported likelihood of engaging in risky behaviors mediated the effect of regulatory focus on unethical behavior.

### Discussion

Using a different manipulation for inducing regulatory focus, Study 3 provides further evidence that when individuals are oriented more toward promotion than prevention, they are more likely to misreport their task performance and thus behave unethically. In addition, we find that the relationship between regulatory focus and unethical behavior is explained by individuals' attitudes toward risk. Compared to prevention focus, promotion focus leads people to be more likely to engage in risky behaviors. In turn, people in promotion focus are more likely to cross ethical boundaries than those with a prevention focus.

### Study 4

The first three studies focused on the relationship between individuals' regulatory focus, induced by the framing of a task or primed through a writing task, and their ethical behavior. These studies allowed us to test our predictions that, compared to people with a prevention focus, those with a promotion focus are more likely to be risk seeking and act dishonestly (Hypotheses 1 and 2). These first three studies also allowed us to test whether induced regulatory focus is linked to compensatory ethics (Hypotheses 3 and 4). Our last hypothesis suggests that consistency within an organization's regulatory focus predicts ethical behavior when all factors are centered around prevention, and unethical behavior when all factors are centered around promotion. Thus, when individuals are highly vigilant about avoiding a negative performance outcome (as induced through prevention-focus resulting from the framing of the task or incentives, for example), a prevention-focus frame of ethics will be more influential and will lead to the lowest levels of dishonesty. Conversely, when individuals are eager to approach a positive performance outcome (as induced through promotion-focus resulting from the framing of the task or incentives, for example), a promotion-focus frame of ethics will be more influential and will lead to the highest levels of dishonesty.

In Study 4, we presented participants with the problem-solving task used in Study 3. We gave them rules framed in terms of either aims to be advanced (i.e., organization promotion-focus frame) or standards with which to comply (organization prevention-focus frame). We used the writing task used in Study 3 to induce either a promotion or prevention focus in participants. Finally, we measured participants' performance on the problem-solving task and the accuracy of their reporting of their results. Inaccuracy in self-reported performance represents dishonesty.

### Methods

#### Participants

One hundred thirty-seven undergraduate and graduate students from local universities in a US city ( $M_{age} = 22$ ,  $SD = 2.84$ ; 53% male) participated in the study for a maximum payment of \$22. Participants received a \$2 show-up fee and had the opportunity to earn an extra \$20 throughout the study. Participants were randomly assigned to one of four conditions upon arrival.

### Procedure

The study employed a 2 (organization's ethics frame: promotion vs. prevention)  $\times$  2 (individuals' induced regulatory focus: promotion vs. prevention) between-subjects design. We manipulated ethics frame by varying what we told participants regarding the research being conducted. In the promotion-focus frame condition (aspiration), participants were presented with rules framed in terms of aims to be advanced. Specifically, the study's general instructions included the following statement: "Statement of Research Mission & Aspiration – This research project is being conducted to advance the ideals and aspirations pursued by applied social science."

In the prevention-focus frame condition (compliance), participants were presented with rules framed in terms of standards to be complied with: "Statement of Research Code of Conduct – This research project is being conducted with strict adherence to the standards and obligations required of applied social science."

After reading some general initial instructions, participants engaged in the same problem-solving task employed in Study 3. As before, positive differences between self-reported and actual performance on the task indicate that participants over-reported their performance and cheated on the task (our main dependent variable).

After the 5-min task, the experimenter gave participants details about the writing task. We manipulated induced regulatory focus by varying the type of instructions about the task participants received. As before, in the promotion-focus condition, people wrote about their past and current hopes, aspirations, and dreams. In the prevention-focus condition, they wrote about their past and current duties, obligations and responsibilities.<sup>2</sup> Participants in all conditions wrote down the number of correctly solved matrices on the collection slip and dropped it and the white envelope with the remaining money in two separate boxes located in different corners of the room.

### Results and discussion

We computed the difference between each participant's self-reported performance and actual performance. Positive differences indicate that participants over-reported their performance and cheated on the task. We used this difference score as our dependent variable in a 2 (ethics frame)  $\times$  2 (regulatory focus) between-subjects ANOVA. The average number of matrices by which participants overstated their performance was greater in the promotion-focus conditions ( $M = 3.66$ ,  $SD = 3.36$ ) than in the prevention-focus conditions ( $M = 0.99$ ,  $SD = 2.38$ ),  $F(1, 133) = 31.01$ ,  $p < .001$ ,  $\eta^2 = .19$ . In addition, it was higher in the aspiration frame conditions ( $M = 3.13$ ,  $SD = 3.52$ ) than in the compliance frame conditions ( $M = 1.60$ ,  $SD = 2.69$ ),  $F(1, 133) = 10.19$ ,  $p < .01$ ,  $\eta^2 = .07$ . The interaction between the two manipulations was not significant ( $p = .37$ ). Fig. 1 depicts these results by showing actual and self-reported performance across conditions.

Table 3 reports the percentage of individuals who over-reported performance (thus cheating) in each condition. As the table shows, over-reporting was the lowest when ethics was framed in terms of compliance and participants had a prevention-focus, and unethical behavior was highest when ethics was framed in terms of aspirations and participants had a promotion-focus.

Taken together, these results provide support for Hypothesis 5 regarding the effects of consistency between individuals' induced regulatory focus and an external frame of ethics (e.g., a frame provided by an organization through its ethics code).

<sup>2</sup> As in Study 3, the manipulation of induced regulatory focus was introduced once participants had already completed the task, so that we could assure such manipulation did not influence effort on the task.



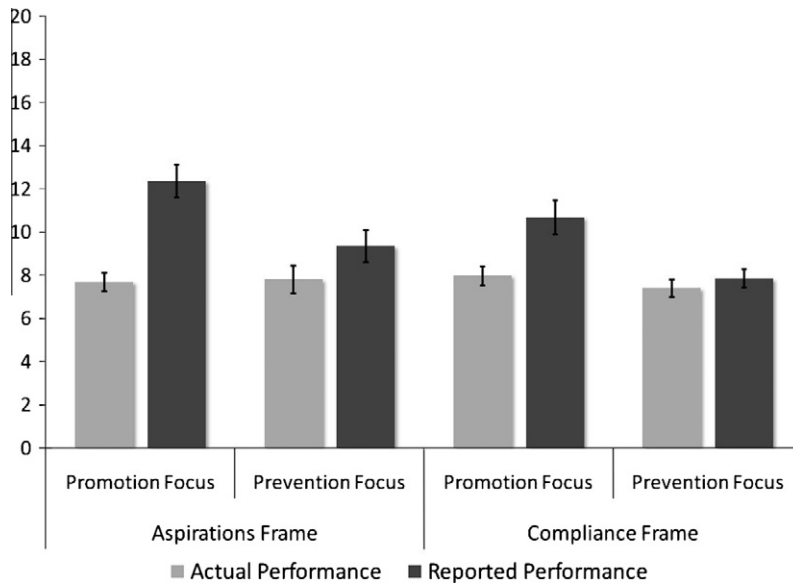


Fig. 1. Actual and reported performance, Study 4. Error bars represent standard errors.

**Table 3**

Percentage of individuals who over-reported or did not over-report performance in each condition, Study 4. Within each column, all percentages are significantly different from one another at the 5% level.

	Did not over-report performance (%)	Over-reported performance (%)
<i>Aspirations frame</i>		
Promotion focus	26.5	73.5
Prevention focus	69.7	30.3
<i>Compliance frame</i>		
Promotion focus	47.2	52.8
Prevention focus	91.2	8.8

## General discussion

The pattern of results over these four studies offers consistent evidence that an individual's induced regulatory focus influences her likelihood to act unethically (Studies 1, 2, and 3) and to perceive risk differently (Study 3). A promotion focus leads individuals to be more likely to act unethically than a prevention focus. These higher levels of dishonesty are explained by the influence of a person's regulatory focus on his or her behavior toward risk. A promotion focus leads to risk-seeking behaviors, while a prevention focus leads to risk avoidance (Study 3). Through higher levels of dishonesty, promotion focus also results in higher levels of virtuous behavior (Studies 2 and 3), thus providing evidence for compensatory ethics. In addition, the results show that unethical behavior can be reduced by framing ethics in terms of compliance to norms and by inducing a prevention focus in individuals (Study 4). We found suggestive evidence that consistency between organizational features and an individual's own regulatory focus predicts ethical behavior when those features center around prevention, and consistency predicts unethical behavior when features center around promotion.

It is possible that another mechanism accounts, at least in part, for this finding. When the signals provided by an external framing of ethics (e.g., an organization's ethics code) are in the same direction as those provided by internal beliefs or tendencies (e.g., a person's regulatory focus), the signals may be more salient. That is, consistency in the signals individuals receive may influence

behavior more strongly than inconsistency in the signals. Future research examining this possibility would further our understanding of the relationship between induced regulatory focus and unethical behavior.

Interestingly, in Study 4 the manipulation of induced regulatory focus in individuals was introduced after participants completed the task and before they reported their task performance. The ethics frame manipulation was introduced at the beginning of the study, and it seems to have been eclipsed by the way we induced individual's regulatory focus. This timing of manipulations mirrors what commonly occurs in organizations where ethics is in the background and an individual's regulatory focus is salient due to the way tasks are framed in terms of objectives and incentive payments. Future research could examine ways in which organizations can effectively bring ethics into focus.

## Theoretical and practical Implications

This research extends prior work on ethical decision making by highlighting the influence of regulatory focus on ethical and unethical behavior, and by investigating the consistency between an organization's frame of ethics and the strategies of goal attainment the organization induces in its members (through factors such as the framing of tasks or incentive schemes). Prior research has shown that organizational-level factors such as ethical climate and ethical culture are important predictors of the frequency of unethical acts within groups and organizational settings (for a review, see Loe, Ferrell, & Mansfield, 2000, or Ford & Richardson, 1994). We build upon this prior work by investigating a specific factor that leads people to either engage in or resist unethical behavior: whether the context focuses a person on prevention of negative outcomes or on the promotion of positive outcomes, and whether the person's induced regulatory focus is aligned with the organization's frame of ethics. Whereas recent theory has emphasized the organizational factors that facilitate misconduct (Brief, Buttram, & Dukerich, 2001; Palmer, 2008; Palmer & Maher, 2006), our findings also illuminate how regulatory focus—induced by tasks, incentive schemes, and ethics framing—can reduce misconduct.

Other research has focused on individual-level factors (e.g., people's age and gender, and their own values) that influence people's

likelihood to behave dishonestly. For instance, men and women have been found to differ in the way they perceive and resolve moral and ethical dilemmas (Dawson, 1997; Peterson, Rhoads, & Vaught, 2001). In our research, we examined a particular factor, a person's regulatory focus. We explored how situationally-induced regulatory focus may lead to dishonest behavior, and how it interacts with an organization's frame of ethics. Our results provides some preliminary evidence indicating that focusing only on individual-level factors may be insufficient in understanding unethical decision making, as factors such as values and approach to ethics can be shaped by people's membership in and interactions with the organizational environment.

Our study therefore also contributes to an emerging body of research examining how positive and negative approaches to ethics elicit different behaviors. Our research on prevention versus promotion focus joins research on acts of omission versus commission (Spranca, Minsk, & Baron, 1991) and on prescriptive versus proscriptive ethics (Janoff-Bulman et al., 2009) to suggest that the ethical imperative or license people experience toward ethically questionable acts will vary depending on how the act is construed, which is a function both of the act's framing and the actor's self-regulatory orientation. In turn, as our findings reveal, the act's framing and the actor's regulatory focus can both be powerfully shaped by subtle cues in the organizational context.

This research also offers some practical implications. In particular, our findings suggest that organizations and their managers can influence employees' behavior by subtle changes in the environment. For instance, by framing rules and policies in terms of negative outcomes that can be avoided, managers may effectively reduce the level of unethical behavior within their organizations. So too, how tasks, reporting guidelines, and incentive schemes are framed may influence ethical behavior as much as any form of ethics policy.

#### *Future research and direction*

The series of studies presented here on the effects of situational cues inducing regulatory focus on individual ethical behavior raises a number of questions. One interesting direction for future research is to directly compare the framing of ethics that involve positive or negative messages in the same study. Such a study would explore whether individuals' likelihood to act unethically differs depending on the valence of the message conveyed through the ethics framing that is involved. In fact, one way regulatory focus has been situationally induced in the past is by varying task instructions so that they emphasize either gain (promotion focus) or losses (prevention focus). For instance, future research could examine the relationship between regulatory focus and framing effects as studied in prospect theory (Kahneman & Tversky, 1979). Prospect theory argues that people tend to go to greater lengths to avoid a loss than to obtain a gain of a similar size; that is, they are averse to losses (Kahneman, Knetsch, & Thaler, 1990). Recently, Kern and Chugh (2009) examined the effects of framing and prospect theory on ethical decision making. The authors found that study participants were more likely to engage in unethical behavior if a decision was presented in a loss frame than if the decision was presented in a gain frame. Future research could manipulate gain and loss frames orthogonally from promotion versus prevention focus, and further examine the role of risk in these relationships. One fruitful venue could be to build on Sitkin and Pablo's (1992) research distinguishing between risk perception and risk propensity. Regulatory focus and framing effects may differentially influence these two risk dimensions.

Future research could also examine the boundary conditions of the effects observed in our studies. For instance, in situations where lying or cheating serves a goal of security (instead of a goal

of advancement as in the current studies), individuals in a prevention focus may be more likely to behave dishonestly compared to participants in a promotion focus. This prediction is consistent with some recent work (e.g., Scholer, Stroessner, & Higgins, 2008) showing that there are situations in which people in a prevention focus are more risk seeking than people in a promotion focus. In particular, when confronted with negative stimuli or in negative/threat domains where using a risky tactic can serve a security function, people in a prevention focus are more likely than those in a promotion focus to behave in a risky manner. For instance, one way to test prevention focus leading to risk seeking in the name of security would be to alter the instructions to participants such that they are told that failure to reach a goal in a given round will lead to elimination from consideration for moving on to the next round. Future research might also examine how ethics framing and induced regulatory focus shape prosocial and supererogatory behavior integral to a task, such as helping others on the task or reporting others' violations.

Another interesting venue for future research is a more nuanced examination of the link between regulatory focus and prosocial behavior. In our second study, we tested for this relationship by giving participants the possibility to behave prosocially after having had an opportunity to cheat. Research investigating whether there is a direct link between regulatory focus and prosocial behavior, and further studies exploring the effects of regulatory focus on compensatory behavior may advance our understanding of the influence of regulatory focus on ethical decision making. Future research might also distinguish whether self-regulatory or compensatory processes are at work when promotion focus produces more prosocial behavior. In our second study, we found that the effect of regulatory focus on prosocial behavior was mediated by the level of cheating on the anagram task, consistent with the idea of compensatory ethics (Zhong et al., 2009). As we noted in the discussion of the results, these findings could also be explained by recent research on regulatory-resources depletion and cheating. Our results do not allow us to directly disentangle the effects of these two different mechanisms. Future research examining this question would deepen our understanding of the relationships among regulatory focus, cheating and prosocial behavior.

Future work could also employ different measures of ethical and unethical behaviors from those used in the studies presented here. The operationalization of unethical behavior in our studies involved committing an error of commission (i.e., actively cheating or lying). Conversely, the operationalization of compensatory ethics involved a potential error of omission (i.e., the potential to not behave ethically). Participants in a promotion focus were probably less concerned with committing errors of commission and so they committed more of them – i.e., they cheated more. Similarly, they were probably more concerned with committing errors of omission and so they committed fewer of them – i.e., they gave more in the donation task. Further studies could employ measures of unethical behavior that do not involve actively lying, but instead involve passively not correcting an error. Using such measures could lead to a pattern of results different from that observed in our studies. Indeed, Camacho et al. (2003) found that individuals in a promotion focus felt guiltier for committing "sins of omission," while individuals in a prevention focus felt guiltier for committing "sins of commission." Future studies could test whether individuals' decisions about whether to act dishonestly or not follow a similar pattern.

A factor that may moderate the relationship between regulatory focus and unethical behavior is the self-importance of moral identity (Aquino & Reed, 2002). Like other social identities people embrace, moral identity can be a basis for social identification that people use to construct their self-definitions (Aquino & Reed, 2002). And like other identities, a person's moral identity may be

associated with certain beliefs, attitudes, and behaviors (Cheryan & Bodenhausen, 2000; Shih, Pittinsky, & Ambady, 1999), particularly when that identity is highly self-important. Would the effects of promotion focus be dampened when individuals consider it important to be moral people or would promotion focus dampen the effects of a strong moral identity? Future research addressing these questions might provide important insights about the role of regulatory focus in ethical decision making.

Finally, future research could examine the relationships we investigated in this paper in field settings. Although the use of laboratory studies allowed us to examine causal relationships and the psychological factors explaining them, it presents limitations in terms of external validity of our findings. Investigating our hypotheses using other empirical approaches and field settings is particularly important for examining the interplay between individuals' regulatory focus and an organization's framing of ethics which we started exploring in Study 4. We hope the current investigation will inspire research exploring such interplay.

## Conclusions

The question of whether unethical behavior such as cheating, stealing, and dishonesty is shaped by the environment is fundamental to both organizations and society. Healthy work and social environments depend on the ability of others (e.g., leaders and their organizations) to spread ethical norms and values, while reducing the attractiveness of unethical misconduct, whether through appropriate sanctioning rules, organizational policies, or an ethical culture. Our findings suggest a potentially important solution to problems of wrongdoing: by influencing individuals' strategies of goal attainment and by framing ethics in terms of outcomes to be prevented, it is possible to reduce dishonesty within group and organizational settings.

## Appendix

Items used to measure risk attitudes, Study 3.

### Instructions

For each of the following statements, please indicate the likelihood of engaging in each activity RIGHT NOW. Provide a rating from 1 to 5, using the following scale: 1 = Extremely unlikely, 3 = Not sure, and 5 = Extremely likely.

1. Cheating on an exam.
2. Forging a friend's signature.
3. Copying/Downloading a piece of software you do not have copyrights for.
4. Stealing an additional TV cable connection.
5. Using office supplies for your personal needs.

### Note

Adapted from Weber, E. U., Blais, A.-R., & Betz, N. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making*, 15, 263–290.

## References

- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1, 323–338.
- Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83(6), 1423–1440.
- Baetz, M. C. (1998). The relationship between mission statements and firm performance: An exploratory study. *Journal of Management*, 35(6), 823–853.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Becker, G. S. (1968). Crime and punishment: An economic approach. *Journal of Political Economy*, 76, 169–217.
- Blais, A., & Weber, E. (2006). A domain-specific risk-taking (DOSPRT) scale for adult populations. *Judgment and Decision Making*, 1(1), 33–47.
- Brief, A. P., Buttram, R. T., & Dukerich, J. M. (2001). Collective corruption in the corporate world: Toward a process model. In M. E. Turner (Ed.), *Groups at work: Theory and research* (pp. 471–499). Mahwah, NJ: Lawrence Erlbaum Associates.
- Brockner, J., & Higgins, E. T. (2001). Regulatory focus theory: Implications for the study of emotions at work. *Organizational Behavior and Human Decision Processes*, 86, 35–66.
- Brockner, J., Higgins, E. T., & Low, M. B. (2004). Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing*, 19(2), 203–231.
- Camacho, C. J., Higgins, E. T., & Luger, L. (2003). Moral value transfer from regulatory fit: “What feels right is right” and “what feels wrong is wrong”. *Journal of Personality and Social Psychology*, 84, 498–510.
- Carlsmith, J. M., & Gross, A. E. (1969). Some effects of guilt on compliance. *Journal of Personality and Social Psychology*, 11, 232–239.
- Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory fit and persuasion: Transfer from ‘feeling right’. *Journal of Personality and Social Psychology*, 86, 388–404.
- Chernev, A. (2004). Goal-attribute compatibility in consumer choice. *Journal of Consumer Psychology*, 14(1 and 2), 141–150.
- Cheryan, S., & Bodenhausen, G. V. (2000). When positive stereotypes threaten intellectual performance: The psychological hazards of “model minority” status. *Psychological Science*, 11, 399–402.
- Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision making. *Organizational Behavior and Human Decision Processes*, 69(2), 117–132.
- Dawson, L. M. (1997). Ethical differences between men and women in the sales profession. *Journal of Business Ethics*, 16, 1143–1152.
- Ford, R. C., & Richardson, W. D. (1994). Ethical decision making: An overview of the empirical literature. *Journal of Business Ethics*, 13, 205–221.
- Förster, J., Friedman, R. S., Ozelsel, A., & Denzler, M. (2006). Enactment of approach and avoidance behavior influences the scope of perceptual and conceptual attention. *Journal of Experimental Social Psychology*, 42, 133–146.
- Förster, J., Higgins, E. T., & Bianco, A. T. (2003). Speed/accuracy decisions in task performance. Built-in trade-off or separate strategic concerns? *Organizational Behavior and Human Decision Processes*, 90(1), 148–164.
- Freitas, A. L., Liberman, N., & Higgins, E. T. (2002). Regulatory fit and resisting temptation during goal pursuit. *Journal of Experimental Social Psychology*, 38, 291–298.
- Friedman, R. S., & Förster, J. (2001). The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology*, 81, 1001–1013.
- Galinsky, A., Leonardelli, G. J., Okhuysen, G. A., & Mussweiler, T. (2005). Regulatory focus at the bargaining table: Promoting distributive and integrative success. *Personality and Social Psychology Bulletin*, 31, 1087–1098.
- Gino, F., Ayal, S., & Ariely, D. (2009). Contagion and differentiation in unethical behavior: The effect of one bad apple on the barrel. *Psychological Science*, 20(3), 393–398.
- Gino, F., Schweitzer, M., Mead, N., & Ariely, D. (in press). Unable to resist temptation: How self-control depletion promotes unethical behavior. *Organizational Behavior and Human Decision Processes*.
- Gino, F., & Pierce, L. (2009a). Dishonesty in the name of equity. *Psychological Science*, 20(9), 1153–1160.
- Gino, F., & Pierce, L. (2009b). The abundance effect: Unethical behavior in the presence of wealth. *Organizational Behavior and Human Decision Processes*, 109(2), 142–155.
- Grant, H., & Higgins, E. T. (2003). Optimism, promotion pride, and prevention pride as predictors of quality of life. *Personality and Social Psychology Bulletin*, 29(12), 1521–1532.
- Hanoch, Y., Johnson, J. G., & Wilke, A. (2006). Domain-specificity in experimental measures and participant recruitment: An application to risk-taking behavior. *Psychological Science*, 17, 300–304.
- Harrison, J. D., Young, J. M., Butow, P., Salkeld, G., & Solomon, M. J. (2005). Is it worth the risk? A systematic review of instruments that measure risk propensity for use in the health setting. *Social Science and Medicine*, 60(6), 1385–1396.
- Hegarty, W., & Sims, H. P. (1978). Some determinants of unethical decision behavior: An experiment. *Journal of Applied Psychology*, 63, 451–457.
- Higgins, E. T. (1996). The “self digest”: Self-knowledge serving self-regulatory functions. *Journal of Personality and Social Psychology*, 71, 1062–1083.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280–1300.
- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist*, 55, 1217–1233.
- Higgins, E. T. (2002). How self-regulation creates distinct values: The case of promotion and prevention decision making. *Journal of Consumer Psychology*, 12(3), 177–191.
- Higgins, E. T., Roney, C. J. R., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: Distinct self-regulatory systems. *Journal of Personality and Social Psychology*, 66, 276–286.
- Hill, J., & Kochendorfer, R. A. (1969). Knowledge of peer success and risk of detection as determinants of cheating. *Developmental Psychology*, 1, 231–238.

- Janoff-Bulman, R., Sheikh, S., & Hepp, S. (2009). Proscriptive versus prescriptive morality: Two faces of moral regulation. *Journal of Personality and Social Psychology*, 96, 521–537.
- Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1990). Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy*, 98, 1325–1348.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263–292.
- Kern, M., & Chugh, D. (2009). Bounded ethicality: The perils of loss framing. *Psychological Science*, 20(3), 378–384.
- Liberman, N., Idson, L. C., Camacho, C. J., & Higgins, E. T. (1999). Promotion and prevention choices between stability and change. *Journal of Personality and Social Psychology*, 77(6), 1135–1145.
- Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by positive and negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology*, 83, 854–864.
- Loe, T. W., Ferrell, L., & Mansfield, P. (2000). A review of empirical studies assessing ethical decision making in business. *Journal of Business Ethics*, 25, 185–204.
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593–614.
- Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of self-concept maintenance. *Journal of Marketing Research*, 45, 633–644.
- Mazar, N., & Zhong, C. B. (2010). Do green products make us better people? *Psychological Science*, 21(4), 494–498.
- Mead, N., Baumeister, R. F., Gino, F., Schweitzer, M., & Ariely, D. (2009). Too tired to tell the truth: Self-control resource depletion and dishonesty. *Journal of Experimental Social Psychology*, 45(3), 594–597.
- Messick, D. M. (1996). Why ethics is not the only thing that matters. *Business Ethics Quarterly*, 6, 223–226.
- Messick, D. M. (1995). Equality, fairness, and social conflict. *Social Justice Research*, 8, 153–173.
- Messick, D. M., & Bazerman, M. H. (1996). Ethics for the 21st century: A decision making approach. *Sloan Management Review*, 37, 9–22.
- Messick, D. M., & Tenbrunsel, A. E. (Eds.). (1996). *Codes of conduct*. New York: Russell Sage Foundation.
- Mishra, B. K., & Prasad, A. (2006). Minimizing retail shrinkage due to employee theft. *International Journal of Retail and Distribution Management*, 34(11), 817–832.
- Molden, D. C., & Higgins, E. T. (2004). Categorization under uncertainty: Resolving vagueness and ambiguity with eager versus vigilant strategies. *Social Cognition*, 22(2), 248–277.
- Paine, L. S. (1994). Managing for organizational integrity. *Harvard Business Review*, 72(2), 106–117.
- Palmer, D. (2008). Extending the process model of collective organizational wrongdoing. *Research in Organizational Behavior*, 28, 107–135.
- Palmer, D., & Maher, M. W. (2006). Developing the process model of collective corruption. *Journal of Management Inquiry*, 15, 363–370.
- Peterson, D., Rhoads, A., & Vaught, B. C. (2001). Ethical beliefs of business professionals: A study of gender, age and external factors. *Journal of Business Ethics*, 31, 225–232.
- Pham, M. T., & Avnet, T. (2004). Ideals and oughts and the reliance on affect versus substance in persuasion. *Journal of Consumer Research*, 30(March), 503–518.
- Scholer, A. A., Stroessner, S. J., & Higgins, E. T. (2008). Responding to negativity: How a risky tactic can serve a vigilant strategy. *Journal of Experimental Social Psychology*, 44, 767–774.
- Schweitzer, M. E., Ordóñez, L., & Douma, B. (2004). Goal setting as a motivator of unethical behavior. *Academy of Management Journal*, 47(3), 422–432.
- Shah, J. Y., & Higgins, E. T. (1997). Expectancy  $\times$  value effects: Regulatory focus as a determinant of magnitude and direction. *Journal of Personality and Social Psychology*, 73, 447–458.
- Shah, J. Y., Higgins, E. T., & Friedman, R. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, 74, 285–293.
- Shih, M., Pittinsky, T. L., & Ambady, N. (1999). Stereotype susceptibility: Identity salience and shifts in quantitative performance. *Psychological Science*, 10, 80–83.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and non-experimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422–445.
- Sitkin, S. B., & Pablo, A. L. (1992). Reconceptualizing the determinants of risk behavior. *Academy of Management Review*, 17, 9–38.
- Smith, J. L., Wagaman, J., & Handley, I. M. (2009). Keeping it dull or making it fun: Task variation as a function of promotion versus prevention focus. *Motivation and Emotion*, 33, 150–160.
- Spranca, M., Minsk, E., & Baron, J. (1991). Omission and commission in judgment and choice. *Journal of Experimental Social Psychology*, 27, 76–105.
- Steininger, M., Johnson, R. E., & Kirts, D. K. (1964). Cheating on college examinations as a function of situationally aroused anxiety and hostility. *Journal of Educational Psychology*, 55, 317–324.
- Tenbrunsel, A. (1998). Misrepresentation and expectation of misrepresentation in an ethical dilemma: The role of incentives and temptation. *Academy of Management Journal*, 41, 330–339.
- Tenbrunsel, A. E., & Messick, D. M. (1996). Behavioral research, business ethics, and social justice. *Social Justice Research*, 9(1), 1–6.
- Tetlock, P. E., Kristel, O., Elson, B., Green, M., & Lerner, J. (2000). The psychology of the unthinkable: Taboo trade-offs, forbidden base rates, and heretical counterfactuals. *Journal of Personality and Social Psychology*, 78, 853–870.
- Tittle, C. R., & Rowe, A. R. (1973). Moral appeal, sanction threat and deviance: An experimental test. *Social Problems*, 20, 488–498.
- Treviño, L. K. (1986). Ethical decision-making in organizations: A person-situation interactionist model. *Academy of Management Review*(July), 601–617.
- Treviño, L., & Youngblood, S. (1990). Bad apples in bad barrels: A causal analysis of ethical decision-making behavior. *Journal of Applied Psychology*, 75, 378–385.
- Treviño, L. K., Weaver, G. R., Gibson, D. G., & Toffler, B. L. (2001). Managing ethics and legal compliance: What hurts and what works. In T. L. Beauchamp & N. E. Bowie (Eds.), *Ethical theory in business* (6th ed.). Upper Saddle River, NJ: Prentice Hall, Inc. (Edited reprinting of Treviño, Weaver, Gibson & Toffler, 1999).
- Vitro, F. T., & Schoer, L. A. (1972). The effects of probability of test success, test importance, and risk of detection on the incidence of cheating. *Journal of School Psychology*, 10, 269–277.
- Wallington, S. A. (1973). Consequences of transgression: Self-punishment and depression. *Journal of Personality and Social Psychology*, 28, 1–7.
- Wan, E. W., Hong, J., & Sternthal, B. (2009). The effect of regulatory orientation and decision strategy on brand judgments. *Journal of Consumer Research*, 35, 1026–1038.
- Wang, J., & Lee, A. (2006). The role of regulatory focus in preference construction. *Journal of Marketing Research*, 43(1), 28–38.
- Weaver, G. R., Treviño, L. K., & Cochran, P. L. (1999a). Integrated and decoupled corporate social performance: Management values, external pressures, and corporate ethics practices. *Academy of Management Journal*, 42(5), 539–552.
- Weaver, G. R., Treviño, L. K., & Cochran, P. L. (1999b). Corporate ethics programs as control systems: Influences of executive commitment and environmental factors. *Academy of Management Journal*, 42(1), 41–57.
- Weber, E. U., Blais, A.-R., & Betz, N. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making*, 15, 263–290.
- Weber, J., Kurke, L., & Pentico, D. (2003). Why do employees steal? *Business and Society*, 42, 359–374.
- Zhao, G., & Pechmann, C. (2007). The impact of regulatory focus on adolescents' response to antismoking advertising campaigns. *Journal of Marketing Research*, 44(November), 671–687.
- Zhong, C., Bohns, V. K., & Gino, F. (2010). A good lamp is the best police: Darkness increases self-interested behavior and dishonesty. *Psychological Science*, 21(3), 311–314.
- Zhong, C. B., Ku, G., Lount, R. B., Jr., & Murnighan, J. K. (2010). Compensatory ethics. *Journal of Business Ethics*, 92, 323–339.
- Zhong, C., & Liljenquist, K. A. (2006). Washing away your sins: Threatened morality and physical cleansing. *Science*, 313, 1451–1452.
- Zhong, C. B., Liljenquist, K., & Cain, D. M. (2009). Moral self-regulation: Licensing & compensation. In D. De Cremer (Ed.), *Psychological perspectives on ethical behavior and decision making* (pp. 75–89). Charlotte, NC: Information Age Publishing.