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Shared interest and honesty in budget reporting

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A B S T R A C T

This study uses two experiments to investigate the honesty of managers' budget reports when the financial benefit resulting from budgetary slack is shared by the manager and other non-reporting employees. Drawing on moral disengagement theory, we predict that the shared interest in slack creation makes misreporting more self-justifiable to the manager and, therefore, leads to lower honesty. Consistent with our prediction, the results of our first experiment show that managers report less honestly when the benefit of slack is shared than when it is not shared, regardless of whether others are aware of the misreporting. Our second experiment investigates whether the preferences of the beneficiaries of the slack affect managers' honesty. We predict that managers' honesty will be improved when the beneficiaries of the slack have a known, higher-order preference for truthful reporting. Consistent with our prediction, the results show that managers report more honestly when other employees have a known preference for honesty than otherwise. The implications of our findings for management accounting research and practice are discussed.

Introduction

Budgeting plays an important role in organizations for planning, coordinating activities, allocating resources and providing appropriate incentives (Covaleski, Evans, Luft, & Shields, 2003). Typically, lower-level managers have superior information about their subunit's conditions, such as costs and productive capabilities. Due to this information asymmetry, upper management in the organization often relies on subunit managers to communicate such information during the budgeting process. This information is useful to the organization for improving the efficiency of resource allocation decisions (Antle & Fellingham, 1990) and the design of budget-based performance incentives (Shields & Shields, 1998). Subunit managers often submit budgets that include slack, defined as the "intentional underestimation of revenues and productive capabilities and/or overestimation of costs and resources required to complete a budgeted task" (Dunk & Nouri, 1998, p. 73). To the extent that budgetary slack results in unnecessary expropriation of resources by the subunit manager, it is not in the best interests of the overall organization.[3]

This study investigates how shared interests in budgetary slack affect the honesty of budget reports. Specifically, we investigate how the sharing of the benefits from budgetary slack between the subunit manager making the report and other non-reporting employees affects the honesty of such reports. Broadly speaking, benefits from slack can be obtained by reporting dishonestly during the budgeting process in two ways. First, costs can be overstated so that the subunit receives excess resources (Merchant, 1985),

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[3] Slack in our study is harmful to the organization because resources are unnecessarily expropriated from the residual claimants. We acknowledge that slack may be necessary in some settings, such as to increase agility in the face of environmental uncertainty or to induce managers to reveal their private information. See Covaleski et al. (2003) for a discussion.

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and the subunit benefits because excess resources may be consumed as perquisites and/or as leisure. Second, targets against which subunit performance will be evaluated can be understated (Fisher, Maines, Peffer, & Sprinkle, 2002; Young, 1985), and the subunit benefits because lower targets may result in higher performance-based pay and/or more leisure.

Importantly, variation across organizational control systems, including incentive pay policies, is likely to affect the degree to which benefits from slack are shared between subunit managers and other employees. For example, the delegation of decision rights varies across organizations, suggesting that the ability of subunit managers to approve expenses that could be consumed as perquisites by other employees also varies. Control systems influence how leisure could be shared with other employees through mechanisms such as outsourcing, hiring excess workers or granting time off. Finally, organizations vary in terms of how deep into the hierarchy budget-based performance pay reaches. Organizations are increasingly using group-based incentive plans, defined as incentive plans in which "compensation varies as a function of performance achieved by a group of employees" (Hollensbe & Guthrie, 2000, p. 846). A distinguishing feature of such plans is that each group member has a share in any benefit resulting from the improvement of group outcomes (Bohlander & Snell, 2007), suggesting that, if subunit managers understate targets, resultant benefits would be shared with employees in their subunit.

The first purpose of this paper is to investigate whether a shared interest in slack creation affects the honesty of managers' budget reports. This question is important to management control scholars and practitioners because it provides insights for understanding when managers are more likely to include slack in their budgets, thereby informing when it may be beneficial to invest in control systems such as audits of budget reports. This question is also important because it potentially identifies when a control mechanism that is useful in one domain imposes a negative externality on a different domain. Specifically, if group-based incentive plans decrease the effectiveness of budgeting, it is important to understand this effect because it may change the optimal design of the overall management control system. That is, management may need to weigh this potential cost against the benefits of group-based incentives when designing the most effective management control system.

The second purpose of this paper is to investigate how firms can mitigate the potential adverse effect of shared interest on honesty. Specifically, we investigate whether managers' reporting behavior is influenced by other employees' preferences regarding how budgets should be made. We conduct two laboratory experiments to address these issues.

Experiment 1 examines managers' reporting behavior when the benefit resulting from budgetary slack is shared. Moral disengagement theory (Bandura, 1990, 1999, 2002) suggests that an important precondition for managers to act opportunistically is the ability to disengage moral responsibility from their action by self-justifying the action so as to make it compatible with moral standards. Therefore, we predict that, compared to settings in which misreporting only benefits the manager, a shared interest (i.e., the fact that misreporting also benefits others) provides more "legitimate" self-justification for misreporting and, as a result, leads to less honest reports. We also examine whether other employees' awareness of the misreporting influences managers' behavior in a setting where the awareness has no economic consequences. We predict that such awareness does not affect managers' behavior when the benefit of slack is shared because the misreporting can be self-justified by shared interest. In contrast, we predict that such awareness increases honesty when the benefit of slack is not shared because the manager may be concerned about other employees' impression about misreporting and such misreporting cannot be self-justified by shared interest.

In Experiment 1, participants act as a division manager or an assistant to the manager. The division manager makes a budget report to request funding to finance the division's production costs, whereas the assistant's role is completely passive. We use this hierarchical arrangement, in which the manager has full authority for budget reporting, because it precludes potential confounding effects of "diffusion of responsibility" (Darley & Latane, 1968; Mynatt & Sherman, 1975) or the assistant's specific input (if allowed) on the manager's reporting behavior. Two factors are manipulated: whether the benefit resulting from budgetary slack is shared with the assistant (yes versus no) and whether the assistant knows about the misreporting (yes versus no). Consistent with our prediction, manager–participants report significantly less honestly when the benefit of slack is shared than when it is not shared. Supplemental data suggest that this effect is not driven by managers' concerns about payoff disparity. Also as predicted, the assistant's awareness of misreporting does not affect managers' behavior when the benefit of slack is shared. However, contrary to our expectation, such awareness also does not affect managers' behavior when the benefit of slack is not shared.

In light of the results of Experiment 1, we design a second experiment to investigate how firms can alleviate the unwanted consequences of shared interest on honesty. Drawing on elastic justification theory (Hsee, 1995, 1996), we predict that managers will be less able to rely on shared interest to self-justify misreporting if other employees have a higher-order preference for truthful reporting. In Experiment 2, we elicit the assistant's non-binding preference and communicate it to the manager (i.e., reporting honestly versus inflating the budget to maximize wealth). We also include a baseline condition in which no preference is communicated. Consistent with our prediction, manager–participants who know that the assistant prefers truthful reporting report significantly more honestly than managers who know that the assistant prefers wealth-maximization or managers who do not know the assistant's preference.

Our findings have several implications for management accounting research and practice. Our study identifies ways in which control systems may create positive or negative externalities on one another. From a positive

externality perspective, our findings suggest that controls limiting the discretion managers have over expenditures or practices that would allow them to share slack with subordinates reduce the need for controls over the budgeting process. From a negative externality perspective, our findings suggest that group-based performance incentives may decrease honesty in budgeting, thereby undermining the effectiveness of the budgeting process. This finding is especially important given that group-based incentive plans are widely used in organizations (DeMatteo, Eby, & Sundstrom, 1998; Fisher, Peffer, & Sprinkle, 2003) and are believed to have a positive effect on organizational outcomes (Hollensbe & Guthrie, 2000). If group-based incentives lower the effectiveness of budgeting, this effect should be included in management's cost-benefit analyses as part of their endeavor to maximize the total effectiveness of management control systems.

Our study also contributes to the stream of research that investigates how non-pecuniary preferences have a bearing on the effectiveness of management control (e.g., Christ, 2010; Coletti, Sedatole, & Towry, 2005; Hannan, 2005). Conventional economic theory predicts that, in our setting, whether the benefit of slack is shared should have no impact on the manager's reporting behavior because the wealth-maximizing level of slack is unaffected by any shared interest. Our study extends existing research by showing that, to the extent that shared interest allows managers to readily self-justify misreporting, honesty in managerial reporting is likely to be undermined, with resultant negative effects on the firm's decision quality and operating efficiency. As such, our study contributes to the growing stream of research documenting that firms can benefit by considering a broader range of preferences than assumed by conventional economic theory.

Our study also provides insights into how firms can play an active role in mitigating the negative side effect resulting from shared interest in slack creation. In light of prior findings that individuals tend to comply with social norms (e.g., Cialdini, Kallgren, & Reno, 1991),[4] accounting research suggests that firms can benefit from incorporating positive, ethical norms into management control systems (Merchant & Van der Stede, 2007; Noreen, 1988). Our study highlights another incremental benefit of cultivating healthy, pro-social norms within the firm: it helps eliminate the potential moral buffer that managers may exploit to self-justify misbehavior. Otherwise, if the prevalent norm is materialistic or ambiguous, it could increase the justifiability of opportunistic behavior and, consequently, exacerbate such behavior.

The remainder of the paper is organized as follows. The next section presents the theoretical framework, hypotheses, method, results, and supplemental analysis for Experiment 1. The third section does the same for Experiment 2. The fourth section discusses the findings and concludes the paper.

[4] Prior research suggests that individuals' norm compliance behavior can be driven by extrinsic (e.g., social approval) or intrinsic (e.g., deriving utility from acting in line with the norm) motives (Kreps, 1997; Posner, 1997).

Experiment 1

Framework and hypotheses development

Background

Several experimental studies have examined managers' honesty in budget reporting (e.g., Evans, Hannan, Krishnan, & Moser, 2001; Hannan, Rankin, & Towry, 2006; Krishnan, Marinich, & Shields, 2011; Newman, 2011). All of these studies are in settings without shared interest in misreporting (i.e., only the individual submitting the budget reaps the benefit of misreporting). In the basic setting, the manager, who has private information on local production costs, submits a budget report to corporate headquarters requesting resources. The manager's budget request is approved with certainty, and the manager keeps any benefit of slack.[5] Evans et al. (2001) find that managers often do not inflate their reports to the maximum possible level, as predicted by conventional economic theory, suggesting that managers have preferences for honesty as well as wealth. Subsequent studies have identified factors that increase honesty such as ethical concerns (Rankin et al., 2008), social pressure to appear honest (Hannan et al., 2006), a preference for meeting the organization's goals (Newman, 2011), and fulfillment of psychological contracts (Krishnan et al., 2011).[6]

Shared financial interest

Our study examines whether sharing the benefit of slack affects managers' honesty. According to Bandura's (1990, 1999, 2002) moral disengagement theory, individuals use generally accepted moral standards to self-regulate their behavior, and they typically refrain from acting in violation of moral standards because such actions would create a psychological cost (e.g., self-condemnation). However, behavior that violates moral standards may nonetheless occur because individuals are able to disengage self-regulation from such behavior. Specifically, the psychological self-regulatory mechanism does not operate unless it is activated, and individuals can deactivate it by rationalizing their behavior in an ego-defensive manner (see also Aronson, 1995, 1999). Indeed, Bandura (1999, p. 194) argues that "[p]eople do not ordinarily engage in harmful conduct until they have justified to themselves the morality of their actions."[7] Moral disengagement theory helps explain, for example, the somewhat puzzling observation that in our society

[5] Other honesty studies (Brüggen & Luft, 2011; Hannan, Rankin, & Towry, 2010; Rankin, Schwartz, & Young, 2003; Rankin, Schwartz, & Young, 2008) allow the principal to reject the manager's budget report. In these studies, the manager benefits to the extent that the budget is inflated conditional on the principal accepting the report.

[6] Other experimental studies have investigated slack creation in settings where participants report their productive capacity rather than a cost budget. These studies also find that participants' behavior deviates significantly from strict self-interest (e.g., Chow, Cooper, & Haddad, 1991; Stevens, 2002; Waller, 1988; Young, 1985).

[7] Relatedly, Gellerman (1986) and Simons (2000) argue that employees will act unethically only if they can self-justify these actions in one way or another. In explaining why dysfunctional behavior is prevalent in organizations, Robinson and Kraatz (1998) note that an important reason is that employees often neutralize such behavior to reconcile it with moral principles.

most individuals perceive themselves as moral (Steele, 1988), yet unethical behavior (e.g., tax evasion, stealing at work) is commonplace (Bersoff, 1999).

As suggested by Bandura (1990, 1999, 2002), one important technique that individuals use to self-justify reprehensible conduct is to redefine or reinterpret the conduct so as to make it morally permissible. To this end, individuals may regard their conduct as serving a broader, collective interest rather than a narrow self-interest (Ashforth & Anand, 2003). For example, managers who make resource allocation decisions believe that allocating an advantageously inequitable share *to their group* is fairer than allocating an advantageously inequitable share solely *to self* (Diekmann, 1997). Employees justify corruption by arguing that it adds value to the group or subunit to which they belong (Anand, Ashforth, & Joshi, 2005).

In our setting, if budgetary slack only benefits the manager, misreporting has a single effect – serving self-interest, which is morally negative and not particularly justifiable. In contrast, if other employees share the benefit of slack, misreporting has an additional effect – serving others' interest. Because helping others is typically regarded as positive and socially desirable (Brief & Motowidlo, 1986), it potentially mitigates or offsets the negative effect associated with pursuing self-interest. Thus, moral disengagement provides a means to reframe the decision to misreport as one that serves the common good, thereby appearing less unethical, which in turn reduces or eliminates feelings of guilt (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996).

The above discussion leads to the following hypothesis.

H1. Managers report less honestly when the benefit of slack is shared with other employees than when the benefit of slack is not shared.

Other employees' awareness of misreporting

Prior research suggests that individuals care about others' impressions of themselves and alter their behavior to manage such impressions even in the absence of economic consequences (Hannan et al., 2006; Leary, 1995; Schlenker, 1980). In budgeting settings, managers may be concerned that misreporting, if known to subordinates, casts them in a negative light.[8] We argue that such concerns are affected by whether the subordinate, who is aware of the misreporting, benefits from it.

When the benefit of misreporting is not shared, managers may be concerned that others view misreporting as selfish and opportunistic. Such behavior violates a societal norm of honesty and, in turn, can engender a negative impression from subordinates (Alexander & Knight, 1971). Because the manager is concerned about what others think, the manager's desire to maximize self-interest may be tempered by a need to put forth a positive image. Accordingly, the manager may report more honestly when others have knowledge of the manager's reporting choice.

When the benefit of misreporting is shared, on the other hand, others' awareness of the manager's reporting choice may have little effect on the manager's behavior. In this case, the manager likely believes that other employees excuse, or even endorse, misreporting because such behavior benefits not only the manager, but other employees as well. The manager may reason that adding slack to the budget enhances the collective interest of the subunit and, thus, is acceptable to other employees. Even if other employees do not approve of such behavior, the manager likely believes that they do (Marks & Miller, 1987; Ross, Greene, & House, 1977). Therefore, others' awareness of misreporting is unlikely to affect honesty in budget reporting with shared interest.

The preceding discussion leads to the following hypotheses.

H2a. If the benefit of slack is not shared with other employees, managers report more honestly when the other employees are aware of the manager's reporting behavior than when they are not aware of the behavior.

H2b. If the benefit of slack is shared with other employees, managers' honesty is not affected by whether the other employees are aware of the manager's reporting behavior.

Method

Experimental setting and design

We conduct a laboratory experiment to test our hypotheses. In the experiment, we use a budget reporting setting similar to the "trust contract" in Evans et al. (2001), rather than use mechanisms such as hurdles (Antle & Eppen, 1985) or audits to induce honesty. The advantage of this type of contract is that it allows the researcher to investigate the effect of behavioral factors when participants have strong economic incentives to act opportunistically. Participants assume the role of a division manager or an assistant to the division manager. The division consists of a manager–assistant dyad. Managers submit a budget report to a hypothetical corporate headquarters requesting funds to finance the division's production cost.[9] The manager knows the actual production cost for certain before submitting the budget report. Headquarters only knows the distribution of the production costs, and will provide funds equal to the budget as long as the reported cost falls within the possible range. The division keeps any difference between funds provided by headquarters and the actual cost (i.e., slack). Importantly, headquarters will never learn the actual cost of production and, therefore, the amount of slack.

We chose not to have participants take the role of the headquarters because it potentially would introduce distributional concerns (e.g., fairness or equity). That is, the manager–participants' reporting decisions might be affected by the extent to which resources were taken away

[8] Other employees' knowledge may also affect a manager's reporting behavior if the manager perceives that such knowledge may result in economic consequences (e.g., whistleblowing). Because our theory relates to innate preferences for favorable impressions, we do not permit any economic consequences in our experimental setting.

[9] Recall that, in practice, managers may create slack by overstating costs in a resource allocation setting or by understating targets in a performance evaluation setting. We use a resource allocation setting in our experiment because it provides a simple mechanism for manager–participants to share the slack.

from another participant who is randomly assigned to act as the headquarters. In an actual employment context, where there exists a hierarchy of residual claimants extending from the immediate supervisor to the shareholders, it is unlikely that such distributional concerns would have a similar effect.

The experimental design includes two between-participant factors. The first manipulated factor is whether the financial benefit resulting from budgetary slack is shared between the manager and assistant. We operationalize such a shared interest as splitting the monetary difference of the budgeted cost minus the actual cost (i.e., slack) between the manager and assistant: in the No-sharing condition, the manager receives the entire slack; in the Sharing condition, the manager and assistant each receive one half of the slack. That is, in our experiment, any slack maps directly into economic payoffs. Note that there could have been alternative ways to operationalize shared interest – for example, imposing an incentive contract in which participants' payoff is contingent on divisional profit and formulating the divisional profit function such that it increases with slack. We chose a simpler operationalization because it captures the economic substance of shared interest and makes it easier for participants to accurately understand the payoff structures of different roles. Thus, it provides a clean and parsimonious test of our hypotheses.

The second manipulated factor is whether the actual cost and the manager's budget report are known to the assistant: in the Known condition, the assistant is informed of the actual cost as well as the manager's budget report; in the Unknown condition, the assistant never learns the actual cost or the budget report. The manager is aware of the assistant's information set in both conditions. The experiment consists of six independent periods (i.e., the actual costs are independent across the six periods and the manager's report in one period has no consequence on any other period). Each period, managers and assistants are paired randomly to form a division dyad.

Participants and experimental procedures

Participants are 174 undergraduate students (i.e., 87 dyads) enrolled in various majors at Georgia Institute of Technology. The experiment was conducted in a behavioral research laboratory and participants interacted anonymously in the same room. After the experiment began, instructions describing the experimental setting and task were distributed and read aloud. Participants were informed that one half would be randomly assigned as division manager and one half as assistant to the division manager. They were also informed that they would maintain these roles throughout the six periods of the experiment, but new manager–assistant dyads would be formed randomly each period. Further, at the end of the experiment, one period would be selected randomly to be the payment period and the experimental currency, Lira, would be converted to dollars at a pre-specified rate (described later).

Each period in the experiment consists of the same basic procedures. Division managers and assistants receive a base salary (also described later). The division manager submits a budget to corporate headquarters to finance production for the division. Production costs fall within the range of 4000 Lira to 6000 Lira, and the actual cost is randomly drawn each period from the following set of equally-likely costs {4000,4001,4002,...,6000}. Before the division manager submits the budget, he or she knows *for certain* what the actual production cost will be. The division manager decides whether to submit a budget that is equal to or more than the actual cost.[10] Headquarters provides the division with funds to finance production equal to the budgeted amount and never learns the actual production cost. Therefore, headquarters will never know if the budgeted cost is more than the actual cost.

Instructions regarding how slack is distributed vary according to experimental condition. In the No-sharing condition, the division manager keeps the entire amount of slack. In the Sharing condition, slack is split equally between the division manager and the assistant. Instructions regarding the information known to the assistant also vary by condition. In the Known condition, assistants are informed of both the actual cost and the budgeted cost that the division manager submits. In the Unknown condition, assistants are not informed of the actual cost or the budgeted cost.[11]

Because this study investigates the reporting behavior of participants acting as division managers, it is crucial that the economic incentives for division managers remain constant across the No-sharing and Sharing conditions. We ensure economic equivalency across the two conditions by systemically varying both the base salaries in Lira and the Lira-to-dollar conversion rate. Specifically, in the No-sharing condition, the manager's (assistant's) base salary is 1000 Lira (800 Lira),[12] and the conversion rate is 120 Lira = $1. In the Sharing condition, the manager's (assistant's) base salary is 500 Lira (400 Lira), and the conversion rate is 60 Lira = $1. Thus, in both conditions, the manager's base pay is $8.33 (i.e., 1000/120 in No-sharing and 500/60 in Sharing) and the manager receives $0.83 for every 100 Lira slack that is created (i.e., 100/120 in No-sharing and (100 × ½)/60 in Sharing). We note, though, that it is impossible to hold the manager's economic incentive constant across conditions without affecting the relative payoffs between the manager and assistant. To address the possibility that differences in relative payoffs affect our results, we

[10] We do not permit budgets to be less than the actual cost in order to prevent negative earnings.

[11] Because the assistants in the Sharing condition are paid based on the manager's report in a randomly selected period, theoretically they could infer the amount of slack for that one period. That is, assistants know their base pay (in Lira) and that additional pay represents the benefit of the slack created by the manager. So, if assistants convert their experimental earnings from dollars to Lira, they can determine slack for the randomly selected period. They cannot, however, determine the actual and budgeted costs for the period (only the slack). Moreover, assistants are only able to make this inference at the end of the experimental session, when they are paid in cash.

[12] As discussed in the introduction section, the manager–assistant hierarchy, where the manager has complete authority for budget reporting, is used to control for possible confounds caused by "diffusion of responsibility" or the assistant's specific input (if allowed). We pay the manager a higher base salary than the assistant because salary differential is largely inherent in such a hierarchical relation in naturally occurring organizational settings, and its absence might be perceived as unrealistic or unfair, which in turn could affect managers' reporting behavior.

conduct a supplemental condition (described and reported later) and find no evidence of such an effect.

After the instructions were read, participants completed a quiz to ensure that they fully understood the experiment. Then, participants were divided into two equal-sized groups and a random draw determined which group would act as division managers and which group as assistants. The two groups (i.e., managers and assistants) were seated on different sides of the room. A solid screen was set up between the groups so that they could not see each other but could see the experimenter in the front of the room. Each participant was assigned a unique identifying *letter*, which was used to track the participant's decisions in all periods and to pay the participant at the end of the experiment. In addition, each participant was assigned an identifying *number* each period, which was used to pair the manager and assistant. Because periods were independent, participants were assigned a different number each period to avoid reputational concerns.

At the beginning of each period, each manager was given a cost sheet. The top section of the sheet indicated the actual production cost for the period. The manager entered his or her identifying number for the period and completed the budget report at the bottom section of the sheet by entering a budgeted cost. Procedures for collecting and distributing the cost sheets did not vary between the No-sharing and Sharing conditions but did vary between the Known and Unknown conditions. Specifically, in the Known condition, the sheets were collected from the managers and randomly distributed to assistants. Each assistant reviewed the actual cost and budget report, and entered his or her identifying number at the bottom of the sheet for pairing purposes. The experimenter collected the sheets again. In the Unknown condition, the sheets were collected from the manager and the experimenter randomly paired a manager with an assistant by entering an assistant's identifying number on each manager's sheet (i.e., assistants never saw the sheet). After that, a new period began, and the same procedures were repeated.

After the six periods were finished, a public six-sided die toss determined the payment period. The cost sheets for the selected period were sent to another room, where a helper determined each participant's pay, put cash in envelopes, and marked each envelope with the participant's identifying letter. Meanwhile, participants completed a post-experiment questionnaire. Participants claimed their individual pay envelopes as they left the laboratory.

Results

Measurement of honesty and descriptive statistics

To ensure comparability across managers, we randomly determined the actual costs for the six periods in advance and used this set for all managers (i.e., all managers received the same actual cost each period). We compute two measures to assess the honesty of managers' budget reports. The first measure, referred to as "Slack," is computed as budgeted cost – actual cost. The second measure, adopted from Evans et al. (2001) and referred to as "Honesty," is computed as 1 – [(budgeted cost – actual cost)/(6000 – actual cost)]. This measure takes a value from zero to one and represents the extent to which managers behave in an honest versus self-interested manner. If a manager behaves honestly by reporting the actual cost, the value is one. If a manager maximizes self-interest by reporting the maximum possible amount of 6000, the value is zero. Values between zero and one represent managers who report an amount above the actual cost but less than the maximum possible amount, as a result of trading off utility from the benefits of slack creation and disutility from misreporting (Luft, 1997; Mittendorf, 2006). Table 1 reports managers' mean Slack and Honesty partitioned by experimental cell.

Tests of H1

To test our first hypothesis, we conduct two sets of two-way ANOVAs. The dependent variables are each manager–participant's Slack and Honesty, respectively, averaged across the six periods. Table 2 reports the ANOVA results.[13]

Our first hypothesis predicts that managers will report less honestly when the benefit of slack is shared than when not shared. As reported in Table 2, there is a significant main effect of sharing on honesty. Specifically, manager–participants create significantly ($F_{1,83} = 3.02$, $p = 0.04$) more slack when the benefit of slack is shared between the manager and assistant (1093) than when the benefit of slack is not shared (975), which is consistent with H1. Likewise, manager–participants' Honesty is significantly ($F_{1,83} = 3.08$, $p = 0.04$) lower when the benefit of slack is shared (0.10) than when not shared (0.19), again consistent with H1. Simple-effect tests confirm that shared interest has a significantly negative effect (p values < 0.01) on Slack and Honesty, irrespective of whether misreporting is known to the assistant. Therefore, our results show that, as suggested by our theory, shared interest in slack creation increases slack in budget reports. Such increased slack is harmful to the organization because it leads to more misuse of resources and thereby lowers organizational efficiency.

Participants' responses to the post-experiment questionnaire provide insights into the process underlying the H1 results. In the post-experiment questionnaire, we asked manager–participants whether they thought the assistant preferred a budget higher than the actual cost, preferred a budget equal to the actual cost, or were indifferent between the two. Table 3 summarizes the responses. When the benefit of slack is not shared, most manager–participants (95% in the Unknown condition and 91% in the Known condition) indicate that the assistant would prefer a budget *equal to* the actual cost or be *indifferent.* However, when the benefit of slack is shared, the response is dramatically different ($\chi^2(3) = 72.04$, $p < 0.01$): virtually all manager–participants (96% and 100%, respectively) indicate that the assistant

[13] Reported p-values are one-tailed unless otherwise specified. In addition, we repeat our hypothesis tests using two repeated-measure ANOVAs, with participants' Slack and Honesty in each period, respectively, as the dependent variable and period as the repeated measure. Statistical inferences are the same as those reported in the paper, and period is not statistically significant.

Table 1
Mean Slack and Honesty in Experiment 1.

	Unknown	Known
No-sharing	Slack = 981 Honesty = 0.19 (N = 21)	Slack = 969 Honesty = 0.20 (N = 22)
Sharing	Slack = 1106 Honesty = 0.09 (N = 24)	Slack = 1077 Honesty = 0.11 (N = 20)

Slack = The manager's budget report – the actual cost.
Honesty = 1 – [(the manager's report – the actual cost)/(6000 – the actual cost)], where 6000 = the maximum budget the manager could submit. This measure takes a value from zero to one and represents the extent to which managers behave in an honest (one) versus self-interested (zero) manner. Values between zero and one represent managers who report an amount above the actual cost but less than the maximum possible amount.
Experimental conditions:
No-sharing = The benefit of slack accrues solely to the manager.
Sharing = The benefit of slack is shared equally between the manager and assistant.
Unknown = The manager's budget report and the actual cost are unknown to the assistant.
Known = The manager's budget report and the actual cost are known to the assistant.

Table 2
ANOVA results for Experiment 1.

	SS	*df*	MS	*F*-statistic	*p*-value
Panel A: Dependent variable = manager's mean Slack across six periods					
Knowledge	9219.82	1	9219.82	0.09	0.38
Sharing	293120.63	1	293120.63	3.02	0.04
Knowledge × Sharing	1703.59	1	1703.59	0.02	0.45
Residual	8063415.05	83	97149.58		
Panel B: Dependent variable = manager's mean Honesty across six periods					
Knowledge	0.005	1	0.005	0.08	0.39
Sharing	0.198	1	0.198	3.08	0.04
Knowledge × Sharing	0.001	1	0.001	0.01	0.46
Residual	5.342	83	0.064		

Knowledge = whether the manager's report and actual cost are known to the assistant.
Sharing = whether the benefit of budgetary slack is shared by the manager and assistant.
See notes to Table 1 for the definitions of other variables. p values are one-tailed.

would prefer a budget *higher than* the actual cost. This result shows that, in the Sharing condition, the manager–participants' default assumption appears to be that the assistant prefers a budget with slack. This assumption is in line with the manager's self-interest and is consistent with our argument that the manager self-justifies inflating the budget. We return to this issue later in Experiment 2.

Tests of H2a and H2b

Our second set of hypotheses predicts that the assistant's awareness of misreporting increases the manager's honesty when the benefit of slack is not shared (H2a), but has no effect when the benefit of slack is shared (H2b). Taken together, the hypotheses predict an interaction. As reported in Table 2, neither the main effect of assistants' knowledge nor the interaction effect is statistically significant. These results provide evidence that the assistant's awareness of misreporting has no effect on the manager's honesty. Although this finding is consistent with H2b (others' awareness does not affect honesty in the Sharing condition), it is inconsistent with H2a (others' awareness increases honesty in the No-sharing condition).

Responses to the post-experiment questionnaire provide insights into this finding. We asked manager–participants to indicate the extent to which they cared about the assistant's overall impression as to how the budget was made on an 11-point Likert scale, with endpoints 1 = not at all and 11 = very much. Means are significantly (one-sample t-test: p values < 0.03, two-tailed) below the midpoint of 6 in all four conditions (ranging from 3.70 in the Sharing/Known condition to 4.33 in both Unknown conditions), indicating that manager–participants have little concern for the impression they make on assistants. A two-way ANOVA shows that the rating does not differ significantly (p values > 0.60, two-tailed) across the four experimental conditions. Overall, the results suggest that the assistant's knowledge of misreporting does not influence the manager's reporting behavior, even when slack does not benefit the assistant. These results could be due to a weak manipulation of the assistant's awareness of misreporting. We discuss this issue further in Discussion and conclusion.

Supplemental analysis

The results of Experiment 1 show that managers create more slack when the benefit of slack is shared with the assistant than when not shared. These results are consistent with H1, but also are consistent with an alternative explanation: that is, concerns about disparity between payoffs (i.e., the manager's and the assistant's). In the No-sharing condition, the manager's payoff increases with slack, thereby increasing the gap between the manager's and the assistant's payoffs. By comparison, in the Sharing condition, the gap between the two parties' payoffs is constant, regardless of the amount of slack. To the extent that managers care about payoff disparity (Rankin et al., 2008), it is possible that they create less slack in the No-sharing condition because slack increases payoff disparity.[14]

To address this alternative explanation, we conducted a supplemental condition. The experimental setting and procedures for this condition are the same as the Sharing/Unknown condition, except that the manager decides how to split the slack. Specifically, the manager chooses whether to keep 80% or 50% of any slack, with the remainder going to the assistant. If concerns about payoff disparity influence managers' reporting decisions, we would expect the majority of managers to choose the 50/50 split

[14] The same reasoning holds if payoff disparity is measured as the ratio of the manager's payoff relative to the assistant's payoff (i.e., the higher the ratio, the greater the gap between the two participants' payoffs). In the No-sharing condition, this ratio is (the manager's base salary + slack)/(the assistant's base salary), which increases with slack. In the Sharing condition, the ratio is (the manager's base salary + one half of the slack)/(the assistant's base salary + one half of the slack), which decreases with slack. That is, creating more slack increases the payoff gap in the No-sharing condition but not in the Sharing condition.

Table 3
Manager–participants' responses to post-experiment questionnaire in Experiment 1.

	Condition			
	Unknown/no-sharing ($N = 21$)	Known/no-sharing ($N = 22$)	Unknown/sharing ($N = 24$)	Known/sharing ($N = 20$)
Question: Which of the following did you think the assistant preferred happening?				
The number of participants who chose each of the three given answers				
– *the budget being more than the actual cost*	1	2	23	20
– *the budget being equal to the actual cost*	10	11	0	0
– *the assistant was indifferent whether the budget was more than or equal to the actual cost*	10	9	1	0

See notes to Table 1 for descriptions of the experimental conditions.

because that choice maintains the 100 Lira gap between the manager's and assistant's pay for every level of slack. Further, we would expect managers who choose the 80/20 split to create less slack (compared to those who choose the 50/50 split) because the gap between the manager's and the assistant's pay increases with the amount of slack.[15]

Forty-six undergraduate students (i.e., 23 dyads) enrolled in various majors at Georgia Institute of Technology participated in the supplemental condition. Results show that Slack (1065) and Honesty (0.11) are not significantly different (p values > 0.46, two-tailed) from those in the Sharing/Unknown condition in Experiment 1 (1106 and 0.09, respectively). Importantly, of the 136 choices of slack allocation (i.e., 23 managers $\times$ 6 periods $-$ 2 cases in which there is no slack), the overwhelming majority (106 or 78%) choose the 80/20 split. A binomial test reveals that manager–participants are more likely ($p < 0.01$, two-tailed) to choose the 80/20 split than the 50/50 split. Further, Slack and Honesty do not differ significantly between the choices of 80/20 split and the choices of 50/50 split (p values > 0.44, two-tailed) or between either of these two choices and the Sharing/Unknown condition in Experiment 1 (p values > 0.32, two-tailed). Overall, the supplemental data are not consistent with concerns about payoff disparity playing a significant role in managers' reporting decisions. These data provide further support for our theory that managers use common interest as an excuse for misreporting.

Experiment 2

Framework and hypotheses development

The results of Experiment 1 suggest that managers are more likely to misreport when doing so benefits other employees because they rely on serving other employees' financial interest to self-justify misreporting. The purpose of Experiment 2 is to provide insights as to how firms may be able to counteract this adverse effect associated with shared interest, thereby improving the quality of information communicated in the budgeting process. Under the traditional agency-based management control perspective, firms tend to deter employee opportunism by taking a disciplinary approach which increases the cost of opportunistic behavior – for instance, using monitoring technology to detect wrongdoings or using truth-inducing contract schemes to economically penalize violators (Murphy, 1993; Salterio & Webb, 2006). However, these control methods are costly for the firm (Baker, Jensen, & Murphy, 1988; McAllister, 1995) and sometimes increase employees' stress and dissatisfaction (e.g., Kramer, 1999). By comparison, an alternative value-based control approach, which is aimed at instilling an ethical orientation into employees (e.g., by culture- or norm-building), can prove effective (Paine, 1994; Treviño, Weaver, Gibson, & Toffler, 1999; Weaver & Treviño, 1999). A distinguishing feature of the value-based approach is that it proactively promotes good behavior rather than passively disciplines bad behavior.

In Experiment 2, we follow this approach and investigate whether other employees' preferences regarding how the budget *should be made* influence the manager's reporting behavior. We are interested in other employees' preferences because, as elaborated below, we expect that honesty will be improved when other employees have a higher-order preference for truthful reporting rather than wealth-maximization. This effect has important implications for firms' management control practice in that, if firms can cultivate the appropriate norms of behavior and such norms are accepted and embraced, employees may be less likely to self-justify opportunistic behavior and, in turn, less likely to engage in such behavior.[16]

As discussed in Experiment 1, when managers are tempted by opportunities to advance self-interest, they usually do not rush into actions that blatantly violate moral standards. Rather, they first look for ways to self-justify

[15] We use two levels of sharing for the supplemental condition in order to facilitate the analysis of slack conditional on shared proportion (i.e., how the benefits are shared). That is, had we allowed manager–participants to choose any sharing proportion and any level of slack, it would have been difficult to assess how the shared proportion affects slack, thereby making it difficult to draw inferences regarding payoff disparity. We use the 50/50 split to be consistent with the proportion used in Experiment 1. We use the 80/20 split because the mean overall proportion of the manager's share of base salary plus slack in the No-sharing condition of Experiment 1 is 78%.

[16] We leave the investigation of how organizational practices, such as codes of conduct, affect employees' honesty preferences to future research because it is beyond the scope of the current paper. In this study, we use a measured variable that captures the variation in such preferences that occur in our participant pool (detail provided in Method). Thus, our measure captures the effects that organizational practices would have on such preferences without attempting to manipulate the practices themselves.

their action and, thereby, disengage potential self-censure from the action (Bandura, 1990, 1999, 2002). Elastic justification theory (Hsee, 1995, 1996) suggests that the degree to which individuals engage in opportunistic behavior depends on the "elasticity" of such behavior – that is, justifiability, or more precisely, the room to self-servingly reinterpret behavior. For example, in Hsee's (1996) experiment, a real estate appraiser was hired by a seller to provide an appraisal of a house, which would be used to determine the selling price. In the experiment, the buyer was the appraiser's fiancé, unbeknownst to the seller. Hsee (1996) found that the appraiser was more likely to deflate the appraisal when the features of the house were "elastic" (i.e., better on some features and worse on others in comparison to a similar house) than when the features were "inelastic" (i.e., identical on all features to a similar house). Similarly, research in tax (Cloyd & Spilker, 1999) and auditing (Kadous, Kennedy, & Peecher, 2003) finds that accountants tend to resolve issues consistent with their client's preferences when there is sufficient ambiguity.

In our setting, if the assistant has a known preference for honest reporting, the elasticity of the manager's reporting decision is reduced. In this case, managers would be hard-pressed to reason that inflating the budget serves the assistant's interest, because the assistant has a higher-order interest that surpasses a narrow financial interest. Based on elastic justification theory, we expect that managers will be less likely to misreport when the assistant prefers truthful reporting than when the assistant's preference is unknown or when the preference is to inflate the budget. This leads to our third hypothesis.

H3. Managers who know that the assistant prefers an honest budget will report more honestly than managers who know that the assistant prefers wealth-maximization or managers who do not know the assistant's preference.[17]

We also consider how the manager's reporting behavior is influenced when the assistant has a preference for inflating the budget, compared to when the assistant's preference is unknown. When the assistant's preference is unknown (as in Experiment 1), the reporting decision is highly elastic because the manager can "freely" interpret an inflated budget as serving the assistant's financial interest and assume that the assistant would prefer receiving a higher payoff via inflating the budget. As reported earlier, consistent with this line of argument, our post-experiment questionnaire data in Experiment 1 suggest that *almost all* managers presumed that the assistant would prefer an inflated budget and then used it to self-justify misreporting. Because the assistant's unknown preference already affords sufficient elasticity for virtually all managers to make self-serving justification for misreporting, we expect that, if the assistant indeed has a known preference for inflating the budget, its incremental effect on the manager's reporting behavior would be limited. However, we have no basis to precisely predict the magnitude of this incremental effect, and therefore we propose our fourth hypothesis in the null form.

H4. The level of honesty will not differ between managers who know that the assistant prefers wealth-maximization and managers who do not know the assistant's preference.

Method

Experimental setting, design and procedures

Experiment 2 uses the same basic setting as the Sharing/Unknown condition of Experiment 1. That is, participants act as a division manager or an assistant, the manager submits a budget report to headquarters, the budget is approved for certain, the benefit of slack is shared equally by the manager and assistant, and the assistant does not know the actual cost or the manager's budget report.

The experimental design is a 1×3 between-participant design, with three levels of preference: Honest, Selfish or Not Disclosed. As described in detail below, the three levels are obtained by measuring each assistant's preference and, then, dividing the responses into three groups. The third with the most honest (selfish) preference are used for the Honest (Selfish) level. The middle third are not provided to the manager and thus are used for the Not Disclosed level: that is, managers are matched with these assistants but are not provided with any preference information. For the two levels where preference is communicated, the experimental instructions clearly state that the assistant's preference is not binding and that the manager may freely report as he or she wishes. The experiment consists of one period so that each assistant's preference is used only once, thereby avoiding potential confounding effects caused by repeated communication.

In order to provide us with the opportunity to categorize the assistants' preferences, we conduct the experiment in two phases. The first phase consists of assistants only and the second phase consists of managers only. In the first phase, participants were provided with the full set of instructions. They were then informed that they were the assistants who would be paired with a manager in a subsequent session and paid based on the manager's decision. Assistants indicated whether and to what extent they thought the budget should be inflated from the actual cost, using an 11-point Likert scale. The endpoints of the scale are labeled as 1 = "The budget should not be inflated (i.e., the manager should report the actual cost)" and 11 = "The budget should be inflated to the full extent (i.e., the manager should report the maximum possible amount of 6000)."

In the second phase, participants were provided with the full set of instructions. They were informed that they were the managers and had been paired with an assistant who would be paid based on the manager's decision. Managers who were assigned to the Honest and Selfish

[17] The results of Experiment 1 indicate that the honesty of manager–participants was unaffected by whether assistant–participants were aware of the misreporting. Apparently manager–participants were not sufficiently concerned with putting forth a positive image in the eyes of their subordinates. We do not view H3 as being at odds with this finding. Our development of H3 posits that knowing the assistant's reporting preference will impede the manager's ability to self-justify misreporting. As such, H3 relies on a different theoretical construct than that investigated in H2a and H2b.

levels of preference received the preference form completed by their assistant in the earlier phase. All managers then received a cost report form containing the actual cost information. All managers received the same actual cost of 4743 Lira, which represents one of the costs observed in Experiment 1 and is near the midpoint of the possible range. Managers submitted their budget reports. After that, they completed a post-experiment questionnaire and were paid in cash as in Experiment 1. Later, assistants claimed their pay from a student helper who was unaware of the purpose of the experiment.

Participants and preferences

Ninety undergraduate students (i.e., 45 dyads) enrolled in various majors at Georgia State University participated in Experiment 2. We conducted a separate session for the Not Disclosed level, with 15 manager–participants. The Honest and Selfish levels were administered in a combined session in which manager–participants selected an envelope with their assistant's preference form. This resulted in 16 participants for the Honest level and 14 participants for the Selfish level.

Recall that in the first phase assistant–participants indicated their preferences on an 11-point Likert scale. Of the 45 assistants, 17 circled the lowest end "1" of the scale (i.e., a preference for honest reporting). Thus, the Honest level consists entirely of a strong preference for honest reporting. The Selfish level has more variance: no assistant circled "11" (i.e., a preference for fully inflating the budget) and the highest point circled was "10." Thus, the Selfish level consists of two "10," two "9," six "8," and four "7" preferences. Note that although the Selfish preference measure is less extreme than the Honest preference measure, this works against H3, which predicts that the Selfish preference will lead to more slack than the Honest preference.[18]

Results

Descriptive statistics

Panel A of Table 4 reports mean Slack and Honesty in the three conditions of Experiment 2. As described earlier, Slack is computed as budgeted cost − actual cost, and Honesty is computed as 1 − [(budgeted cost − actual cost)/(6000 − actual cost)]. For Honesty, a value of one indicates truthful reporting and a value of zero indicates wealth-maximization.

Test of hypotheses

H3 predicts that managers who know that the assistant prefers an honest budget will report more honestly than managers who know that the assistant prefers wealth-maximization or managers who do not know the assistant's preference. H4 predicts that the honesty level will not differ between managers who know that the assistant prefers wealth-maximization and managers who do not know the assistant's preference. To test H3 and H4, we conducted two one-way ANOVAs, with Slack and Honesty, respectively, as the dependent variable. The independent variable is the assistant's preference: Honest, Selfish, or Not Disclosed. The results are reported in Panel B of Table 4.[19]

Overall, manager–participants' honesty is significantly different ($F_{2,44} = 6.91$, $p < 0.01$) across the three conditions. Multiple-comparison Bonferroni tests reveal that manager–participants report significantly more honestly (p values < 0.01) in the Honest preference condition (Slack = 473, Honesty = 0.62) than in the Selfish preference (Slack = 970, Honesty = 0.23) or Not Disclosed (Slack = 939, Honesty = 0.25) conditions. By comparison, the honesty level does not differ significantly (p values > 0.99, two-tailed) between the Selfish preference and Not Disclosed conditions. Therefore, H3 and H4 are supported. These results suggest that, if the assistant has a clear-cut preference for honest reporting, the manager's reporting decision will be inelastic because common interest provides less justification for inflating the budget. As a result, the manager is less inclined to inflate the budget. By comparison, if the assistant's preference is unknown or if it is one that embraces maximizing wealth, the manager will be more inclined to report so as to maximize wealth.

The post-experiment questionnaire asked manager–participants in the Honest and Selfish preference conditions to indicate the extent to which they considered the assistant's preference in deciding the budget, using an 11-point Likert scale with endpoints 1 = "not at all" and 11 = "very much." The rating does not differ significantly ($p = 0.72$, two-tailed) between the Honest (6.57) and Selfish preference (7.06) conditions. This result suggests that the assistant's preference has the same level of influence on the manager's reporting decision, irrespective of its content.

Discussion and conclusion

We conducted two experiments to investigate the effect of shared interest in slack creation on honesty in budget reporting. Drawing on moral disengagement theory, we argue that managers can self-justify their opportunistic misreporting when the benefits resulting from slack are shared, which in turn leads to less honesty in budget reporting. In our first experiment, we find that, consistent with our prediction, managers report less honestly when the benefit of misreporting is shared with another employee than when the benefit accrues solely to the manager. The result holds irrespective of whether the

[18] Although assistant–participants were ensured strict anonymity of their responses, the fact that assistants were less inclined to state a completely selfish preference might still reflect a bias toward social desirability. Nevertheless, assistants' elicited responses simply provide a means for us to manipulate preferences without introducing deception (i.e., managers are given actual, stated preference as collected from assistants). The issue that we are interested in is not whether the elicited preferences align with true preferences, but whether the elicited (stated) preferences influence the manager's reporting behavior.

[19] Because all manager–participants made budget reports for a single period based on the same actual cost, mathematically the measure Honesty is a linear function of the measure Slack and, thus, any statistical tests using Honesty as the dependent variable yields the same results as those using Slack as the dependent variable. Therefore, only one set of results is reported in Panel B of Table 4.

Table 4
Descriptive statistics and ANOVA results for Experiment 2.

Not disclosed		Honest preference		Selfish preference	
Panel A: Mean Slack and Honesty					
Slack = 939		Slack = 473		Slack = 970	
Honesty = 0.25 (N = 15)		Honesty = 0.62 (N = 16)		Honesty = 0.23 (N = 14)	
	SS	*df*	MS	*F*-statistic	*p*-value
Panel B: ANOVA results					
Assistant's preference	2405752.47	2	1202876.23	6.91	0.001
Residual	7313502.51	42	174131.01		
Total	9719254.98	44			

Not disclosed = the condition in which the manager is not shown the assistant's preference.
Honest preference = the condition in which the manager is shown an assistant's preference for truthful reporting.
Selfish preference = the condition in which the manager is shown an assistant's preference for wealth maximizing.
The ANOVA results are based on two ANOVA tests using Slack and Honesty, respectively, as the dependent variable. Because all manager–participants made budget reports for a single period based on the same actual cost, mathematically the measure Honesty is a linear function of the measure Slack. Therefore, the two ANOVA tests yield the same results.
See notes to Table 1 for the definitions of other variables. p values are one-tailed.

other employee observes the manager's report (i.e., whether the other employee has direct knowledge of misreporting). Supplemental data analyses are consistent with the manager using shared interest to self-justify misreporting. This effect of shared interest on budgetary slack is detrimental to organizations because, in our setting, such slack lowers the efficiency of resource allocation and undermines organizational effectiveness.

We design a second experiment to investigate whether the other employee's preference (for honesty or wealth-maximization) affects the manager's behavior in the presence of shared interest. We contend that when the other employee has a known preference for honest reporting, the manager cannot easily self-justify misreporting. In our second experiment, we measure the other employee's preference and communicate that preference to the manager. We also include a control level in which no preference is communicated. We find that managers report more honestly when the other employee has a known preference for honesty. By comparison, we do not find any difference in honesty when the other employee has a known preference for wealth-maximization or an unknown preference. Hence, the manager's default assumption appears to be that the other employee prefers wealth-maximization, at least to a greater extent than honesty.

Our research findings are subject to several potential limitations. In our experiment, we use a manager–assistant hierarchical arrangement, in which the manager has complete authority for budget reporting, to preclude possible confounds such as diffusion of responsibility. Yet, this arrangement puts the assistant–participant in a disadvantageous position (i.e., receives a lower base salary). Although our supplemental data provide evidence that managers were unwilling to give up some of their own payoff to make the assistant better off, we cannot rule out the possibility that managers' reports were influenced by their concerns for the disadvantaged assistant. Further research is needed to investigate whether our results generalize to settings in which slack is shared with employees who are not disadvantaged relative to the reporting manager. Providing the manager with complete authority also abstracts away from group settings where the firm may benefit by allowing subordinate input into the decision process or by group-based incentive plans. Future research could investigate how the potential costs indentified in our study interact with these types of benefits from group settings.

In addition, our failure to find support for H2a could be due to weak manipulation of the assistant's awareness of misreporting (i.e., the manager and assistant do not know each other and the manager's decision is anonymous). It would be interesting to investigate whether the results would differ if the familiarity or intimacy between the manager and assistant were increased. Finally, to eliminate fairness concerns, we do not have a participant act as the headquarters in the experiment. Such concerns, however, may be present in naturally occurring organizational settings. Future research can explore whether and how the manager's general honesty level is influenced by fairness concerns. We note that, because this paper focuses on incremental effects observed by comparing between experimental conditions, our results are not likely to be systematically affected by the absence of a headquarters–participant.

Despite these limitations, our findings have important implications for organizations regarding how to induce managers to truthfully communicate private information. If the organization can build an ethical organizational environment in which most employees live up to pro-social moral principles, it would be difficult for managers to justify potential opportunistic behavior and, thereby, would likely curb or mitigate such behavior. This type of preemptive control approach may be more effective than the traditional, compliance approach that *ex post* disciplines misbehavior (Booth & Schultz, 2004; Murphy, 1993; Paine, 1994). Otherwise, to the extent that employees' moral values are generally low or ambivalent, the quality of information transmitted within the organization may be undermined.

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