

# The Effects of Perceived Fairness on Opportunistic Behavior\*

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## 1. Introduction

Agency theory predicts that when managers possess both private information and potential for personal gain they will act in their own self-interest at the expense of the firm's owners (Baiman 1982, 1990; Eisenhart 1989). Because this self-interested behavior is costly for the firm and its stakeholders, effective monitoring devices and incentives are fundamental components of management control systems (Kaplan and Atkinson 1998). Consequently, it is of practical and academic benefit to understand more completely the nature and conflicts of the agency relationship as well as context-specific factors that affect the potential for abusive behavior and opportunistic decision making.

In this study, we explore the effect of the perception of the fairness of an action on the self-interested behavior predicted by agency theory. Fairness has been the focus of significant theoretical work in economics (see Fehr and Schmidt 1999 for a review) and management accounting (Luft 1997), but there are few empirical studies of its effect in an agency context (Libby 2001; Evans, Hannan, Krishnan, and Moser 2001; Miller and Ratner 1996). In this investigation, we assess the influence of the perceived fairness of an opportunistic action on individuals' stated intentions to take that action. In this experiment, we control for the influence of social desirability on the reported intent and measure the individual's moral development, a factor thought to influence the predilection for engaging in opportunistic behavior in auditing (Jones, Massey, and Thorne 2003), management accounting (Rutledge and Karim 1999; Hannan, Rankin, and Towry 2005), and other professional settings (Rest and Narvaez 1994). In this study, we define perceived fairness as an attribute of an action or outcome (Wentzel 2002). In other words, the manner in which an individual perceives the fairness of the outcomes

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associated with a potential behavior may affect an individual's willingness to undertake a particular action. We find that subjects' intention to take the action is more strongly influenced by the fairness of a potentially opportunistic action than by the joint presence of opportunity and incentive to do so. Our findings suggest that when individuals perceive an action to be unfair, they are less likely to do so regardless of the potential payoff for taking the unfair action and the likelihood that the unfair action will remain undiscovered.

These findings suggest that situational factors such as the perceived fairness of an action are important in promoting the ethical behavior of individuals in managerial accounting situations. For example, the results from this study suggest that control systems attempting to align compensation with management behavior should also promote the fairness and equity of the reward system to all who are affected (Libby 2001). Furthermore, researchers also should be careful to consider situational variables such as fairness when studying ethical decision making and behavior.

The remainder of this study is organized as follows. The next section presents our motivation and a literature review. We describe our research design in section 3 and the results in section 4. Section 5 sets out our conclusions, as well as the limitations of the study.

## 2. Motivation and literature review

### *Agency contracting*

Agency research assumes that an agent's activities are unobservable or are costly to monitor. Therefore, the principals (i.e., the shareholders or top management) are not fully informed about the level of an agent's effort (Kaplan and Atkinson 1998). The principal's objective is to devise an incentive system such that outcome-contingent compensation motivates the agent's profit-maximizing level of effort that in turn maximizes the potential profits of the firm (Kren 1997). We first provide an overview and critique of the utility function used in classical agency analysis, which assumes that utility is solely a function of wealth, leisure, and risk aversion. We then review literature that discusses the role of ethics and fairness in individual decision making. This review of the literature leads to the conclusion that it is useful to include the situational effects of perceived fairness when attempting to study ethical decision making in an agency context.

Agency theory is one of the predominant theoretical frameworks for conducting accounting-based research. It is also one of the major theoretical bases informing the contemporary contracting environment (Almer, Higgs, and Hooks 2005; Harrell and Harrison 1994; Harrison and Harrell 1993; Baiman 1990; Eisenhardt 1989). The model is easy to understand and lends itself readily to practical implications for formulating organizational contracts and controlling opportunistic behavior. In this theoretic framework, individuals presented jointly with the opportunity — through informational asymmetries — and an incentive for self-interested behavior will reliably seize upon the chance to behave opportunistically (Baiman 1982). Thus, the contracting structures revolve around either controlling the opportunity

to behave opportunistically by reducing informational asymmetries (i.e., increasing monitoring) or by providing a different set of incentives, presumably to align the materialistic interests of the agent with those of his or her principals (i.e., incentive contracts) (Kren 1997). The effects of the implementation of this theoretical perspective in the contemporary contracting environment are pervasive, extending from mandatory financial audits, to intensive and detailed management control systems, to financial bonuses or employee stock option grants.

The theory and its implications possess an attractive simplicity; however, it is also considered to yield undesirable organizational behavior. The theory implicitly regards opportunistic behavior as a social norm. Research has shown that promoting self-interest as a social norm through dissemination of theories, such as agency theory, instigates various dysfunctional attitudes and behavior within organizations (for reviews of this literature, see Ghoshal and Moran 1996; Ghoshal 2005; and Cohen and Holder-Webb 2006). Incentive contracts appear to stimulate a desire to game the incentive structure, as evidenced by the increase in overt earnings management — occasionally to the point of fraud — in the wake of a massive increase in executive stock options-based compensation (Penman 2003). One major problem with the incentive aspect of a typical agency-based contract lies in the embedded assumptions about the employee's optimal reward structure; it presumes a desire for extrinsic and monetary rewards, rather than personal satisfaction and desire to engage ethically with contracting partners. Ferraro, Pfeffer, and Sutton (2005) suggest, instead, that many employees are initially motivated by desire for these intrinsic rewards, but change their behavior to conform to the extrinsic reward structures offered in their employment contracts.

These contracts affect not only the employee's behavior, but appear also to affect his or her underlying value systems. Miller and Ratner (1998) demonstrate that people consistently over-estimate the degree to which self-interest influences behavior, as a function of conditioning with social norms similar to those presented by agency-based contracts. Marwell and Ames (1981) and Frank, Gilovich, and Regan (1993) show that economics students, conditioned to the expectation of self-interest, demonstrate temporal changes in free riding, eventually engaging in more free riding and less honest behavior than students from other disciplines. That is, individuals can be induced by the promotion of theories based on assumptions of self-interest to change their behavior and/or desires to conform as though their primary desire was for opportunistic exploitation of contracting loopholes.

Monitoring can lead to pathologies in the relationship between employee and supervisor, as demonstrated by Enzle and Anderson 1993, who show that individuals subjected to surveillance internalize the organizational suspicion. Those performing the monitoring place increasingly less trust in those that they monitor, whereas the subjects of the monitoring become less motivated and less trustworthy as a function of being monitored (Enzle and Anderson 1993). Thus, the monitoring attribute of agency-based contracts can also induce organizational dysfunction by directly decreasing the inclination to perform on agreement; in essence, the monitoring appears in some situations to create and exacerbate the very problem that it has been instituted to resolve.

Industrial psychologists have long been aware of these phenomena and their social and organizational costs (Peterson and Seligman 2003). As a response, they propose a new theoretical model of positive psychology — focusing on the organizational strengths of individuals, rather than emphasizing expected weaknesses. Ratner and Miller (2001, 16) agree, in stating that it is “generally more effective to remove obstacles [that inhibit individuals from taking desirable behavior] than to provide them with additional reasons for taking the desired action”. Consequently, it is desirable to explore alternative contracting assumptions that would lead to more positive behavior. Hence, in this study, we explore the individual’s perceived fairness of a self-interested action on his or her stated intent to behave opportunistically.

### *Fairness and ethics*

Fehr and Schmidt (1999) define concern for fairness as an aversion to inequity (e.g., in our study, an aversion to inequitable consequences) and model the willingness to forgo a material payoff in exchange for more equitable outcomes. In their theoretical model, individual characteristics — concern for fairness — and the economic environment jointly determine equilibrium behavior. Rabin (1993), in a game-theoretic context, defines a concern for fairness as treating altruistic people fairly and hurtful people hurtfully even when this is costly to the decision maker. Piron and Fernandez (1995), in an examination of buying patterns of consumer behavior, also find empirical support for the role of fairness in an individual’s decision-making behavior. These studies suggest that perceived fairness of an action may be a valuable, if neglected, addition to the traditional agency framework. Specifically, the awareness of the fairness of a potentially opportunistic action may alter the agency relationship. Those who perceive that a self-interested action is unfair may be less likely to engage in it under the traditional agency conditions of information asymmetries and perquisites or monetary rewards for engaging in the self-interested behavior.<sup>1</sup>

There is considerable evidence that fairness plays a role in many business-related decisions (Colquit and Greenberg 2003). For example, Kahneman, Knetsch, and Thaler (1986) and Piron and Fernandes (1995) suggest that considerations of fairness drive both consumer and producer behaviors, while Greenberg (2002) suggests that employees are reluctant to engage in theft if they perceive that the money has come from individual managers. Luft (1997) argues that if management accounting researchers ignore considerations of fairness, they would present an incomplete description of management accounting-related behavior.

The managerial control systems literature implicitly recognizes that monetary rewards are an incomplete motivation (Simons 1995). Merchant (1998) and David and Militello (1994), for example, advocate the use of personnel or cultural controls in which self- or mutual monitoring, effective personnel selection, codes of conduct, and “tone at the top” can replace or supplement monetary rewards to ensure that everyone works in the organization’s best interest. Further, Libby (2001) and Evans et al. (2001) highlight the importance of considering fairness in a budgetary context. These studies suggest that honesty may play a larger role than

narrow self-interest. Further, their results suggest that the fairness of the outcomes may affect reporting judgements.

We expect that individuals have a utility function that includes a concern for fairness (Libby 2001; Fehr and Schmidt 1999; Luft 1997; Piron and Fernandez 1995), and that this concern may be as important as the desire to behave opportunistically. We therefore measure perceived fairness of an opportunistic action and test the degree to which it affects the intention to carry out the action predicted by classic agency theory. Therefore, we hypothesize:

**HYPOTHESIS.** *In the presence of an agency conflict, the greater the perceived unfairness of an action, the less likely individuals will be to state an intention of taking the opportunistic action.*

### 3. Research design

#### *Sample*

Respondents were 261 current or recent managers or management accountants selected from professional development or executive master of business administration (MBA) courses in Boston and Toronto.<sup>2</sup> Because all instruments were distributed during class sessions, the response rate was very high, but a meaningful response rate cannot be calculated. In some cases, the instrument was completed during class sessions, while in others, respondents took the instrument away for completion and collection the following week. No differences in the intention to engage in opportunistic behavior emerged due to location or the manner in which the data were collected. Neither were there any significant differences between Canadian and U.S. subjects in the intention to charge the cost or in any other variable of interest.<sup>3</sup> Accordingly, responses were aggregated for subsequent analysis. Seven of the 261 subjects returned incomplete instruments, and a further 16 failed the defining issues test (DIT) internal consistency checks and were eliminated from the sample.

In addition, manipulation checks were performed on the asymmetry and incentive manipulations. For the asymmetry checks, subjects in the low asymmetry condition who indicated that discovery was highly unlikely (score of 1) and subjects in the high asymmetry condition who considered discovery very likely (score of 7) were eliminated (4 subjects) because these spreads indicate a lack of understanding of the effects or opportunities presented by the information asymmetry. For the incentive checks, subjects in the no-incentive condition who nonetheless felt that the charge would make a very large difference in their compensation (score of 7) and subjects in the high-incentive situation who thought that the charge would not result in any difference in their compensation (score of 1) were also eliminated (1 subject). The resulting sample comprised 233 subjects.

Demographic data are presented in Table 1.

#### *Description of the experimental task*

Healy and Whalen (1999) note that evidence suggests that, in practice, managers employ accounting judgement to increase their earnings-based bonuses. We thus

created a design where the managers' annual bonuses would be sensitive to the allocation of costs among projects.<sup>4</sup> Participants were provided with a case description based on an actual company and were requested to assume the role of the manager. Subjects were asked to decide whether to follow company policy and allocate some research and development (R&D) costs to a near-complete project, or to violate company policy by allocating it to future projects. This decision task was based on interviews with senior officers of the operations and information technology department for a company in the greater Boston area. Allocation — as required by policy — would result in lower current profits, which in turn would prevent the manager from receiving a bonus for that year. On the other hand, allocation to future projects would enhance current profits, resulting in an undeserved bonus in some experimental conditions.<sup>5</sup>

Four versions of the instrument manipulated information asymmetry (absent or present), and levels of incentive (none and present).<sup>6</sup> Following company policy by allocating the cost to the current, nearly complete project would result in a missed bonus for the year. That is, in order to earn a bonus, managers would have to violate company policy and allocate the cost to future projects. Pilot tests were conducted with MBA students to clarify any ambiguities in the task instrument.

TABLE 1  
Subject demographics ( $n = 261$ )

Gender	Male	65%
	Female	35%
Age	< 25 years	18%
	26–30 years	44%
	31–40 years	26%
	41–50 years	9%
	> 50 years	3%
Nationality	Canadian	56%
	American	44%
Education	Secondary school	0.8%
	Bachelor's degree	75.3%
	Master's or PhD	19.2%
	Other	1.2%
Experience	< 1 year	7%
	1–3 years	25%
	4–10 years	47%
	11–20 years	17%
	> 20 years	4%

Respondents also completed the three-story version of the defining issues test (Rest 1979a), the multidimensional ethics scale (MES) (Cohen, Pant, and Sharp 1996), manipulation checks on the agency variables, and demographic questions.<sup>7</sup>

### *Dependent variable*

The dependent variable is the individual's self-assessed likelihood of allocating the cost to future projects and thereby violating company policy (*INTENT*). The primary variable of interest is the subjects' response to the question "The probability that I would undertake the ... action [of charging the \$2 million to the new projects] is ...", anchored by "very low" (1) and "very high" (7).<sup>8</sup> This measures a respondent's likelihood of taking a similar action and is known to be a reliable predictor measure of whether he or she would actually take a similar action in similar circumstances (Ajzen 1988; Cohen, Pant, and Sharp 1994).

### *Primary model independent variables*

Because agency theory posits that moral hazard occurs in the presence of both information asymmetry and incentive to shirk (i.e., an interaction effect), an agency variable (*AGENCY*) was computed as the product of an information asymmetry (or opportunity) and an incentive (or motivation) variable. Subjects who were presented with scenarios featuring low asymmetry and an incentive, or high asymmetry but no incentive were coded as "0" on *AGENCY*. Subjects presented with high asymmetry and an incentive were coded as "1" on *AGENCY*.

Information asymmetry was manipulated as high or low by changing the description of the control system in the decision environment. In the low asymmetry version, a sophisticated information system allowed senior management to easily access cost information on projects on a continuous basis. The firm also had a strong internal audit department that "routinely reviewed the cost accounts of various projects". In the high asymmetry version, senior management had little access to timely project cost information because the project costs were only accumulated at the end of the project. Further, there was no mention of an internal audit department. The incentive variable was manipulated as either absent (the decision maker was paid a flat salary) or present at a lower level (\$5,000 annual bonus) or higher level (\$40,000 bonus). For the main analysis, the two bonus samples were pooled.

Perceived fairness (*FAIR*) was measured using the mean of the three moral equity items on the MES. These items have been shown in previous studies to demonstrate high reliability and discriminant validity (Flory, Phillips, Reidenback, and Robin 1992; Cohen et al. 1996). The three items were measured with seven-point Likert scales anchored by "fair/unfair", "just/unjust", and "morally right/not morally right". Although in the prior literature fairness has been used to refer to either process or outcomes (Libby 2001), in this study the three items related to the specific action in the case and thus were consistent with Fehr and Schmidt's 1999 definition of self-centered equity aversion "people do not care per se about inequity that exists among other people but are only interested in the fairness of their own material payoff relative to the payoff of others" (1999, 819).<sup>9</sup> The Cronbach alpha of this construct in this sample was 0.81.

### Control variables

Prior research in other disciplines (Rest and Narvaez 1994) suggests that an individual's moral development is at times a factor in the decision to engage in opportunistic behavior. Therefore, we control for this attribute explicitly. Moral development (*MORAL*) was measured using the *p*-score derived from the three-story version of the DIT (Rest 1979a, b; Jones et al. 2003).<sup>10</sup> *FAIR* and *MORAL* are uncorrelated variables (Pearson coefficient = 0.000 [ $p = 0.994$ ]; Spearman coefficient = 0.003 [ $p = 0.966$ ]). As implemented in this study, the two variables appear to measure separate constructs. In sensitivity analyses (not separately reported) we employed controls for possible gender (Cohen, Pant, and Sharp 1998, 2001), nationality (Salter and Sharp 2001), and age (Ponemon and Gabhart 1993) effects. These controls were not significant and did not alter the significance of other variables and have therefore not been included in the primary model.

The dependent variable, subjects' self-reported intention to take the questionable action, is potentially understated, owing to the potential for a social desirability response bias (i.e., that respondents will be unwilling to admit that they would take an unethical action). Furthermore, this unwillingness is likely to differ between subjects, for personality reasons, and as a function of their perception of the morality of the action (situational reasons). Therefore, subjects were also asked to state their estimate of the likelihood that peers or colleagues would undertake the action, also based on a seven-point scale anchored by "Very unlikely" (1) and "Very likely" (7). The variable "respondent's own stated intention minus believed others' intentions" parsimoniously captures a simple social desirability bias measure: the extent to which the respondent believes that he or she is less likely than his or her peers to take a questionable action. Including this variable (*BIAS*) in the regression is therefore a means of controlling for any potential confound that may arise from a social desirability bias (Randall and Fernandes 1992; Cohen et al. 1996, 2001).<sup>11</sup> As expected, a paired *t*-test found a significant difference in the responses to the "Would you do it?" and "Would others do it?" items ( $t = 11.029$ ,  $p = 0.000$ ), while its strong negative correlation with the answer to the question "Is it ethical?" ( $r = -0.366$ ,  $p = 0.000$ ) supports its face validity. Its correlation with the dependent variable *FAIR* (0.301,  $p = 0.000$ ) is consistent with this. Fairness is one criterion by which the perceived morality of an action is evaluated, and we expect (and find) a smaller response bias when the perceived morality of the action is high.

To control for social desirability response bias, we included the difference score (*BIAS*) described above for social desirability bias in the regression.<sup>12</sup>

The full regression is as follows:

$$INTENT = \beta_0 + \beta_1 AGENCY + \beta_2 FAIR + \beta_3 MORAL + \beta_4 BIAS + \epsilon \quad (1).$$

Because the MES Likert scales are anchored with fairness, justness, and moral correctness (score = 1) and unfairness, injustice, and moral incorrectness (score = 7), a perception of greater overall "fairness" results in a lower value for *FAIR*. *INTENT* represents an increasing inclination to engage in the self-interested action. Therefore, if the Hypothesis is supported and a person's perception of the

fairness of an action affects his or her inclination to take that action, we expect a significant negative relationship between *FAIR* and *INTENT*. Agency theory suggests only an interaction effect, not main effects, from asymmetries and incentives. Therefore, (1) includes only their product term.

#### 4. Results

##### *Tests of the effects of perceived fairness on agency problems*

Regression analysis was employed to test for effects of agency, moral development, and perceived fairness on the intention to engage in a self-interested action (*INTENT*), as measured by a Likert-type scale ranging from 1 (low intent) to 7 (high intent). Descriptive statistics of nondemographic model variables appear in Table 2. Univariate analyses indicate that while both fairness and moral development are negatively associated with the intent to act opportunistically, the association between fairness and intent is significant and strong.<sup>13</sup>

The results of the estimation of (1), shown in Table 3, support the Hypothesis.<sup>14</sup> The coefficient on *FAIR* is as expected: large, negative, and highly significant after controlling for other factors (opportunity, incentive, and moral development) known to influence an agent's action in an agency context. The standardized coefficients suggest that the effect of perceived fairness dominates the agency problem and the effect of moral development.<sup>15</sup> In keeping with the correlation analysis, the significance of the coefficient on *MORAL* does not change significantly when *FAIR* is dropped from the model.<sup>16</sup> In certain complex business situations, the perceived fairness of an action may be a stronger determinant of whether the action will or will not be taken than the presence of an agency problem or the decision maker's moral development.

##### *Sensitivity analysis*

Prior literature suggests that magnitude of an outcome may affect an individual's willingness to act in a self-interested manner (Evans et al. 2001). We therefore explore whether an individual's unwillingness to act opportunistically, given that a person believes that an action is unfair, is sensitive to the size of the incentive. In other words, we ask whether individuals who perceive the action as unfair are influenced by the magnitude of the available incentive. On the basis of discussions with practicing managers, the magnitude of the incentive was manipulated as "absent", "low", or "high", operationalized as \$0, \$5,000, and \$40,000, respectively. To explore this question, we divided the pool of observations by the subjects' perceived fairness of the action. Subjects who rated the action as a 1, 2, or 3 were classified into the "fair" grouping, while those who rated it as a 5, 6, or 7 were classified into the "unfair" grouping. The results of the ANOVA and Kruskal-Wallis tests do not yield statistical significance within groups. Thus we conclude that the magnitude of incentive difference used in our study does not affect intention, regardless of perceptions of fairness. Those who perceive it as fair are more willing to take the action regardless of the reward. If subjects perceive the action as unfair, their stated intention of doing so is not higher given a higher reward.<sup>17</sup>

It is possible that the perception and desire to exploit an agency problem may be a function of professional experience. Jones et al. (2003) provide mixed evidence pertaining to the role of experience in accounting-based ethical decisions. Therefore, to ensure that the observed relationship between perceived fairness and the intent to act opportunistically is not a function of the subject's experience, we respecified the model to include a continuous measure of the number of years of professional experience for each subject. Results (not reported here) indicate that

TABLE 2  
Descriptive statistics of subject variables

Asymmetries	Incentive conditions			
	None	Low	High	Total
Low	43 (2.74) {1.80}	36 (2.67) {1.74}	42 (2.65) {1.78}	121 (2.69) {1.76}
High	25 (3.08) {1.61}	51 (2.82) {1.98}	35 (3.49) {2.03}	111 (3.09) {1.93}
Total	68 (2.87) {1.73}	87 (2.76) {1.88}	77 (3.03) {1.93}	

Panel B: Means and medians

	Mean	s.d.	Median
<i>INTENT</i>	2.88	1.85	2.00
<i>FAIR</i>	4.75	1.59	5.00
<i>MORAL</i>	37.93	17.36	37.10
<i>BIAS</i>	-1.13	1.56	-1.00

Panel C: Pearson correlation coefficients (*p*-values)\*

	<i>INTENT</i>	<i>FAIR</i>	<i>MORAL</i>	<i>BIAS</i>
<i>INTENT</i>		-0.646 (0.000)	-0.075 (0.255)	-0.546 (0.000)
<i>FAIR</i>			0.000 (0.994)	-0.546 (0.000)
<i>MORAL</i>				0.033 (0.612)
<i>n</i> = 232				

Notes:

\* Spearman correlation coefficients and significance levels are quantitatively similar for all variables.

*INTENT* = subjects' assessment of own probability of making the charge (on a seven-point scale anchored on 1 = low probability and 7 = high probability); *FAIR* = mean score on three moral equity items from the *MES*; *MORAL* = defining issues test (DIT) *p*-score; *BIAS* = "probability that I would do it" minus "probability that others would do it" items.

this continuous variable is not significant and its inclusion does not alter the findings for *FAIR*.

Bernardi (1994, 768) states, "Most researchers using the DIT have cited Rest's (1986) alpha of .76; however Rest's standardization was made up of subjects from junior high school to college graduates ( $N = 1080$ )." Because our sample was made up of a more homogeneous group than that in Rest 1986, the Cronbach's alpha for the sample was 0.46. This is comparable to Bernardi 1994 who reported for his (also homogeneous) initial sample a Cronbach's alpha of 0.35. However, following the methodology of Bernardi (1994, 772-3) we eliminated 21 subjects who caused the biggest incremental reduction in reliability. By following this procedure, we were able to increase Cronbach's alpha to 0.60. The model results are not sensitive to the exclusion of these 21 observations.

As a further exploration of the sensitivity of the model results to the individual-specific effects of moral development, we examined the effects of stage of moral development. The DIT instrument captures the relative importance placed by respondents on criteria in each of Kohlberg's moral development stages 2-6 (Kohlberg 1969, 1984). However, the *p*-score commonly used in accounting ethics research only uses stages 5 and 6, which are the highest levels of moral development. It is possible that lower levels of moral development (specifically, the self-interest motivation of stage 2 reasoning), which are not captured in the *p*-score, could be associated with the accounting manipulation decision of the experimental task. We therefore explored whether the measures of reasoning at each of the separate levels 2 through 6 (provided in DIT-1 output), were significant predictors of the questionable cost allocation. We included all six levels (including 5A and 5B)

TABLE 3  
Regression of intention on agency, fairness, and moral development

Variable	Unstandardized coefficient	Standardized coefficient	<i>t</i> -statistic	<i>p</i> -value*
Constant	7.417	18.574	0.000	
AGENCY	0.291	0.171	1.703	0.090
FAIR	-0.778	-0.541	-11.253	0.000
MORAL	-0.006	-0.057	-1.282	0.201
BIAS	-0.397	-0.333	-6.934	0.000
Adjusted $R^2 = 0.548$				
$F = 71.013$ ( $p = 0.000$ )				

Notes:

\* 1-tailed *p*-values reported

*INTENT* = subjects' self-rating on intention to take opportunistic earnings charge;  
*AGENCY* = 1 if high asymmetry and positive incentive, 0 for all low asymmetry and/or zero incentive conditions. The rest of the variables are as defined in Table 2.

as separate variables in a single model, and found that stage 2 reasoning was significantly ( $p = 0.039$ ) positively related to the decision, and stage 6 reasoning significantly negatively related at  $p = 0.086$ . Thus, respondents who exhibited a higher level of stage 2 reasoning were more likely to undertake the questionable cost allocation, and those exhibiting a higher level of stage 6 reasoning were less likely to undertake it. However, inclusion of these additional controls does not affect the magnitude or significance of the *FAIR* variable; the standardized coefficient of *FAIR* ( $-0.560$ ) remains larger than these two significant moral development variables (stage 2 = 0.102; stage 6 =  $-0.094$ ).

We conclude from these analyses that the hypothesized effect of perceived fairness on the intent to take an opportunistic action is robust to alternative specifications and/or inclusion of potentially relevant control variables. In all analyses, the coefficient of *FAIR* is negative and significant, and the standardized coefficient is larger than all other model variables, including that of *AGENCY*.

## 5. Conclusions and limitations

Prior accounting research using the agency theory framework posits that in conditions of information asymmetry and appropriate incentives, managers will act in their own self-interest defined in monetary utility terms (Kren 1997). However, there is a growing body of evidence that suggests that considerations of fairness or equity may play a role in utility functions (Libby 2001; Evans et al. 2001). For example, Luft (1997) demonstrates how, in product costing and related pricing decisions, neglect of the consideration of fairness results in an incomplete description of consumer behavior. In this study we explore the extent to which concerns for fairness, rather than the narrow self-interest assumed by the classic agency model, determine an individuals intentions' with respect to a potentially opportunistic action. While the predictions of the agency theory provided significant explanatory value to the stated intent of taking the action, the concern for fairness was a stronger indicator, as suggested by recent models in the economics literature (Rabin 1993; Fehr and Schmidt 1999).

Univariate and multivariate analyses support the assertion that perceptions of fairness exercise an important influence on the opportunity to act in a self-interested manner and the intention of doing so. These findings provide empirical support for the behavioral economics (Fehr and Schmidt 1999) and accounting arguments (Luft 1997; Libby 2001; Evans et al. 2001) that a broader utility preference model than that proposed by classical agency theory motivates some individuals in an earnings management context. Consistent with Evans et al. 2001, we find that for at least some practicing managers in a cost-allocation task, individuals often do act in an honest and ethical manner even in situations where information asymmetry and incentives to act otherwise exist.

The finding is also robust to the inclusion of other factors known to exert an influence on management decision making, primarily the magnitude of the incentive and the moral development of the decision maker. Moral development is statistically insignificant in the univariate and multivariate analyses throughout. One potential explanation for this finding may be measurement error in the commonly

accepted measure of moral development, the DIT (Bay 2002; Bay and Greenberg 2001; Reiter 1996, 1998; Thoma 1994). While we employ the DIT to allow comparability with the extant literature, we do so cautiously with the understanding that it may be unsuitable for use in examining more complex decision-making processes. Jones (1991) proposes a model in which there are multiple situational factors that can explain ethical behavior, including the moral intensity of the situation. This suggests that strictly relying on an individual's DIT score to explain ethical behavior may not be appropriate in cases where the potential consequences to a decision may be viewed as unfair to others. This finding is of significant import to researchers who wish to explore complex decision-making processes such as that presented in this study. Furthermore, to allow comparability with other accounting-related ethics studies, we used an older version of the DIT (Jones et al. 2003). Moreover, as Rest and Narvaez (1998, 27) indicate, the  $p$  scores for the more up to date DIT-2 instrument correlate with the original DIT at 0.79, or approximately the test-retest reliability of the original DIT. However, researchers can employ a more up-to-date DIT as well as a more context-specific moral development scale. For example, in accounting ethics, researchers have begun to develop and employ an accounting context instrument to measure moral development (Thorne 2000). Although Thorne's 2000 instrument used an auditing context, perhaps a future study that uses an accounting-related scale may find that moral development has a stronger effect than that found in the current study.

Fairness comprises multiple components including the fairness of the process or the fairness of the outcome (Libby 2001). In this study, we used an aggregate measure of fairness that is derived from the multidimensional ethics scale (Cohen et al. 1996) and was related to the specific action in the case. Although we did not examine specific components of fairness, the results of this study using practicing managers support the findings by Libby 2001 and Evans et al. 2001 that the self-interest model presented by agency theory may be inappropriately narrow (Rutledge and Karim 1999; Stevens 2002) and should be expanded to include a preference for fairness (Luft 1997; Libby 2001). As noted earlier, the approach we used is consistent with Fehr and Schmidt's 1999 perspective of self-centered equity aversion. To understand the effect of fairness more thoroughly, a future study should look at which specific component of fairness may be more salient in explaining an accounting-based decision that is not explained by classical agency predictions (Noreen 1988). For example, within an organization, the fairness of the process by which performance evaluations are carried out may affect whether an individual self-reports behaviors in an honest manner (Colquitt and Greenberg 2003).

On the whole, the findings of this study provide important information pertaining to the development both of theory and of the business contracting environment. Contracting provisions based on the assumption of opportunistic behavior have been shown in the accounting, economics, psychology, and management literature to engender a host of undesirable consequences arising both from self-fulfilling effects and providing inducement to game the system. Contracting provisions based on expectations of fair and ethical dealing, on the other hand, are unlikely to induce dysfunctional behavior on the part of the parties to the contract.

This study contributes to the accounting literature on ethics and fairness by demonstrating the importance of an individual's concern for fairness regarding his or her actions in an ambiguous ethical context. It also contributes to the accounting ethics literature by suggesting that accounting researchers should consider expanding the current interest in ethical issues (traditionally considered in light of moral development) by examining the perceived fairness of the consequences of accounting-based decision making. Finally, the results suggest that fairness may also hold promise in other accounting-related ethics research, such as auditing. Thus, the results of this paper shed light on one small piece of the contracting puzzle on how to use the notion of fairness to induce at least some managers to act in the interest of stakeholders as opposed to acting primarily from a self-interest perspective.

### Endnotes

1. We recognize that fairness may be a multidimensional construct that potentially includes both a procedural component and a distributive element (Welbourne, Balkin, and Gomez-Mejia 1995). This is discussed in a later section promoting opportunities for future research.
2. Although this is a multinational sample, we do not study any type of international effect; we expect that subjects from the northeastern United States are culturally similar to those in nearby Toronto.
3. Mean *INTENT* for U.S. subjects is 2.69, with a standard deviation of 1.85; mean *INTENT* for Canadian subjects is 3.03, with a standard deviation of 1.85. Likewise, the mean *FAIR* for U.S. (Canadian) subjects is 5.21 (5.01), while the mean *MORAL* for U.S. (Canadian) subjects is 36.10 (39.38). For all three variables, the *t*-test fails to reject a hypothesis of different means at all conventional levels of significance ( $p > 0.10$ ). Thus, we conclude that there is no reason to believe that a cross-cultural difference exists that would affect the results of the primary analyses.
4. The instrument is available from the authors upon request. An educational version of this case is found in Cohen et al. (2000).
5. This between-subjects manipulation of information asymmetry and incentive was developed from the agency and control literature (e.g., Chow, Cooper, and Waller 1988; Baiman 1990; Stevens 2002).
6. In the incentive being present manipulation, we set the incentive at either \$5,000 or \$40,000. This is discussed in the section entitled "Sensitivity Analysis", below.
7. To check for sequencing effects, two variations of each of the versions of the instrument were distributed in which the order of questions and polarity of scales in the MES were varied. No such effects were found. To check for order effects, two variations of each of the versions of the instrument were distributed in which the order of questions and polarity of scales in the MES were varied. No order effects were found.
8. The axes of this scale were alternated randomly across subjects to reduce potential ordering effects.
9. This definition is thus outcome fairness, rather than process fairness. To ensure that the metric captured the subject's assessment of the fairness of the action (procedural fairness), rather than his or her assessment of the fairness of the outcome, we

distributed a revised questionnaire to 51 upper-level undergraduate students in a managerial cost analysis class.

This questionnaire was similar in all ways to the original instrument with the exception of the following added question:

When answering the last three questions regarding “how just”, “how fair”, and “how morally right” was the action, please indicate BY CIRCLING THE LETTER which did the action refer more to:

(A): The process by which Tom earns his compensation (i.e., the profits-based compensation system) OR

(B): The fact that as a result of his action, Tom received a bonus.

We randomized the order of the responses across questionnaires. Of the respondents, 43 answered that it was the action of allocation while 8 respondents answered that it was the process by which the compensation was earned. Thus, it appears that respondents were primarily focusing on the fairness of the outcome. As a further test to determine if our score of fairness was related to specific components of fairness, we added the following two questions adapted from questions asked by Libby 2001 in her study on budgeting and fairness. Each question had a seven-point response scale anchored by (1) “Do Not Agree” and (7) “Strongly Agree”.

Question 1: The fact that as a result of his actions Tom received a bonus was unfair.

Question 2: The process by which Tom earns his compensation (i.e., the profits-based compensation system) was unfair.

We randomized the order of the responses across questionnaires. The mean (standard deviation) was 5.57 (1.01) for the first question and 3.67 (1.70) for the second question. The results suggest that our measure of fairness primarily captured elements of outcome fairness.

10. Despite the overwhelming use of the DIT by ethics researchers (Louwers, Ponemon, and Radtke 1997), we recognize that the DIT might not adequately capture the link between ethics and behavior (Rest and Narvaez 1994). To overcome this weak link, Thorne (2000) developed an instrument for an auditing context that separately measures prescriptive and deliberative moral judgements. Nevertheless, Thorne’s 2000 instrument was developed for use in an auditing, rather than a managerial, context. Therefore, we employ the DIT in this study.
11. It must be noted that although we used a social desirability response variable that had been used in prior research (Cohen et al. 2001), Geiger and O’Connell (2000) and Bernardi and LaCross (2004) point out that there are alternative scales such as Paulhus’s 1991 impression management scale that might be more effective at measuring the social desirability response bias (SDRB). As a means of assessing an alternative perspective for evaluating a SDRB, we distributed to 61 graduate Master of Science in Accountancy (MSA) students enrolled in an upper-level accounting course, the version of the instrument that had both the high incentive and information asymmetry conditions. In addition to the “halo effect” measure (the difference between whether respondents indicate that they would undertake the action versus whether they perceived others would undertake the action) that we previously used to assess the SDRB, we added the Paulhus 1991 impression management scale. The results

indicated that the respondents did demonstrate a “halo effect”, whereby they significantly ( $p < 0.001$ ) perceived that others would be more likely to undertake the action than they would. Our results did not find a significant correlation between the impression management scale and the “halo effect” measure we used to evaluate the SDRB ( $p = 0.408$ ), between the impression management scale and the how likely an individual would be to take the action ( $p = 0.131$ ), and between the impression management scale and how ethical the action was perceived to be by the respondent ( $p = 0.334$ ). Perhaps to improve accounting researchers’ efforts to control for the SDRB, future research should attempt to adapt an impression management scale for accounting issues in a similar manner to that used successfully by Thorne 2000 to adapt the DIT to an accounting setting.

12. The primary analysis method employed in this paper is regression analysis. While regression is generally employed on continuous dependent variables, Johnson and Creech (1983) demonstrate that the ordinal values generated from a Likert scale are acceptable as long as five or more categories are employed. Furthermore, the smaller cell sizes in the dependent variable exhibit larger variances, resulting in a lack of conservatism in the (ANOVA)  $F$ -tests. Examination of the residuals of the regression model indicates no evidence of heteroscedasticity. Consequently, regression analysis offers a more conservative test of the Hypothesis.
13. If the sample is partitioned by high versus low moral development, or by moral development score quartiles, there is no observable difference in the subjects’ perception of the fairness of the action or their intention to act opportunistically. That is, neither the fairness nor the intention to act appears to be dependent on a subject’s moral development as measured by the DIT.
14. One observation with an excessively high Cook’s  $D$  has been eliminated. The effect on the relationship between *FAIR* and *INTENT* from eliminating this observation is not significant.
15. Because ANOVA is a more commonly used method of statistical analysis for experimental work, we also ran the model presented in Table 3 as an ANOVA (univariate generalized linear model) despite the concerns about the conservatism of the  $F$ -tests. The results obtained were qualitatively similar to those presented in Table 3. Regression permits assessment of directional hypotheses for individual variables and hence is the main technique employed herein.
16. The same is true for *FAIR* if *MORAL* is dropped.
17. Because many recent corporate financial statement manipulation frauds involved rewards in the millions of dollars, future research could be conducted to determine whether an incentive difference of this magnitude would exhibit a fairness effect.

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