BAD APPLES IN BAD BARRELS REVISITED: COGNITIVE MORAL DEVELOPMENT, JUST WORLD BELIEFS, REWARDS, AND ETHICAL DECISION-MAKING

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Abstract: In this study, we test the interactive effect on ethical decision-making of (1) personal characteristics, and (2) personal expectancies based on perceptions of organizational rewards and punishments. Personal characteristics studied were cognitive moral development and belief in a just world. Using an in-basket simulation, we found that exposure to reward system information influenced managers' outcome expectancies. Further, outcome expectancies and belief in a just world interacted with managers' cognitive moral development to influence managers' ethical decision-making. In particular, low-cognitive moral development managers who expected that their organization condoned unethical behavior made less ethical decisions while high cognitive moral development managers became more ethical in this environment. Low cognitive moral development managers also behaved less ethically when their belief in a just world was high.

Recent business scandals have raised concerns about management integrity (Pearlstein 2002), yet Snell (2000) noted a dearth of empirical research on management ethical decision-making. Models of ethical decision-making generally focus on two types of influences and their interaction: characteristics of individuals that predispose them to make more or less ethical decisions and characteristics of organizational environments (e.g., codes, ethical climates, ethics programs, leadership, referent others, reward systems, etc.) that can influence individuals' ethical and unethical decisions and conduct (e.g., Greenberg 2002; Jones and Ryan 1997; Treviño 1986; Treviño, Butterfield, and McCabe 1998; Treviño, Weaver, Gibson, and Toffler 1999; Victor and Cullen 1988). In their classic study titled "bad apples in bad barrels," Treviño and Youngblood (1990) found support for these two basic kinds of influences on unethical behavior in organizations. The 'bad apples' perspective blames unethical conduct on morally flawed individuals whose personal characteristics predispose them to behave unethically. The 'bad barrels' perspective links unethical behavior to an immoral organizational ethos, where subordinates succumb to organizational influence to comply with corporate transgressions (see also Ford and Richardson 1994). Treviño and Youngblood demonstrated that both individual

© 2006. *Business Ethics Quarterly,* Volume 16, Issue 4. ISSN 1052-150X. pp. 449–473

differences (cognitive moral development and locus of control) and messages sent by the organizational reward system influenced ethical decision-making.

We extend that work in our study. At the core of our thesis is the idea that the organizational reward system implemented by senior management influences subordinates to act unethically to comply or cover management malfeasance (Jones 1991; see Miethe 1999 for case studies). Similar to Treviño and Youngblood, we propose that organizational reward systems affect managers' decision-making by influencing their outcome expectancies. Outcome expectancies represent the individual's perception of the likelihood that a behavior or decision will lead to a particular outcome, for example that a decision is likely to be rewarded or disciplined.

Further, we study the interactive influence on unethical conduct of two individual difference factors. The first of these, cognitive moral development (CMD: Kohlberg 1969, 1976), was included in Treviño and Youngblood's (1990) study. The second personal variable is belief in a just world (BJW: Lerner 1965). According to Lerner, BJW is a generalized, deeply held belief system derived from a lifetime of social learning experiences. A person with a high BJW believes that the world is generally fair and just. Windsor and Ashkanasy (1995) introduced this variable in a study of auditors' ethical decision-making, and found that it interacted with CMD as a predictor of auditors' resistance to management pressure to accommodate unethical client demands. As such, BJW represents a potentially significant extension to the Treviño and Youngblood findings, which focused on actors' expectancies derived from immediately experienced social learning.

Organizational Factor: Reward Systems, Outcome Expectancies, and Ethical Decision-Making

We focus on reward systems because of the powerful influence of rewards and punishments on individual behavior generally and on ethical/unethical behavior specifically (Tenbrunsel 1998). Research evidence suggests that ethical conduct can be influenced by employees' awareness of organizational rewards and punishments for ethical and unethical conduct (Ford and Richardson 1994).

In this research, we take a social learning perspective to understand better the impact of reward systems. Social learning theory (Bandura1986) suggests that most learning occurs not through direct experience, but vicariously by observing the behavior and outcomes experienced by others. This seems particularly applicable to ethical and unethical conduct in organizations. Organizations would not want every manager to have to experiment with unethical behavior in order to discover that it will be punished. Rather, it makes sense that managers observe the behaviors and outcomes of others in order to guide their own decisions and behavior.

The social learning process assumes anticipatory thought about outcome expectancies. Individuals are motivated to behave or not behave in a particular way based upon their beliefs about the likely future outcomes of such behavior. The focus on outcome expectancies can be traced to Tolman (1932/1951) who saw learning as

the development of expectations that particular behaviors would produce specific outcomes (cf. Bandura1986).

Thus, in ethical decision-making situations, we propose that individuals learn what outcomes to expect by observing what has happened to their organizational peers. Those who have observed others being rewarded for unethical conduct or punished for ethical conduct should be more likely to make unethical decisions because they come to expect a similar outcome for themselves if they were to behave similarly and they internalize these expectations. Indeed, Treviño and Youngblood (1990) found that vicarious exposure to the organizational reward system affected managers' ethical decision-making by influencing their outcome expectancies. In the present study, we expect awareness of the reward system to act in a similar fashion. Thus:

Hypothesis 1 (a). Managers exposed to unethical behavior being rewarded or ethical behavior being punished will, in comparison to those not so exposed, report a higher expectation that the organization condones unethical behavior.

Hypothesis 1 (b). Managers who have a higher expectation that their organization condones unethical behavior are more likely to make unethical decisions.

Personal Factors: Moral Reasoning and Belief in a Just World

The 'bad apples' perspective suggests that individual differences affect ethical decision-making and behavior. Cognitive moral development (CMD) was the starting point for Treviño's interactionist model and is the most established individual difference variable in the general study of ethical decision-making (see Rest 1986; Rest and Narváez 1994). Yet, only a few studies of ethical decision-making and behavior in organizations have studied the influence of CMD (see Loe, Ferrell, and Mansfield 2000 for a review).

Treviño and Youngblood (1990) showed that cognitive moral development influenced managers' ethical decision-making in an organizational setting. We extend their work by examining the interaction of two individual difference variables, CMD and BJW. A CMD x BJW interaction was found in earlier studies of auditors' decisions (Windsor and Ashkanasy 1995; Windsor and Warming-Rasmussen 2003). Here, we explore the effect of CMD, and the CMD and BJW interaction in the context of *managerial* ethical decision-making (see also Ford and Richardson 1994).

Cognitive moral development (CMD). Kohlberg (1969, 1976) identified three broad levels of CMD, which encompass six "stages" of moral development. The lowest level (stages 1 and 2) is the *pre-conventional* level, where a person decides what is right or wrong based upon personal consequences (e.g., punishment, reward, or an exchange of favors). The next level (stages 3 and 4) is the *conventional*

level, where decisions about what is 'right' conform to society's expectations, family, or peer groups. The highest category is the *post-conventional* level (stages 5 and 6). Here, thinking about what is 'right' is influenced by universal values or principles; the individual defines moral values apart from the authority of groups, and relies upon self-chosen but non-arbitrary principles of justice and rights to guide reasoning.

Kohlberg's theories have attracted a good deal of attention in the organizational literature (e.g., see Treviño 1992 for a review). In particular, higher levels of moral reasoning have been found to be associated with more ethical decisions (e.g., Treviño and Youngblood 1990; Weber 1990; Greenberg 2002). The theory argues that higher CMD should be associated with more ethical decisions and behavior because of the individual's need for consistency between thought and action.

In formulating our hypotheses, and consistent with Kohlberg's (1969, 1976) theory, we viewed levels of moral reasoning as a categorical variable. This is consistent with the methods adopted in studies, for example, in behavioral development (Pasupathi and Staudinger 2001) and auditor independence (e.g., see Evraert and Prat dit Hauret 2002; Ponemon and Gabhart 1994; Rest et al. 1999; Warming-Rasmussen and Windsor 2003; Windsor and Ashkanasy 1995; Windsor and Warming-Rasmussen 2003). In this respect, we adopted the Windsor and Ashkanasy (1995) three-category model based on Kohlberg's types. In this model, the highest moral reasoning people are labeled 'autonomous,' followed by 'accommodating,' and 'pragmatic' moral reasoning at the lowest level (discussed further below). We use their terminology in our hypotheses, viz.:

Hypothesis 2. Moral reasoning will be associated with ethical decision-making, such that autonomous managers (high CMD) will make more ethical decisions than accommodating (mid CMD) managers, who will in turn make more ethical decisions than pragmatic (low CMD) managers.

Of course, Kohlberg's approach has limitations and has been criticized. For instance, Rest et al. (1999) noted that moral judgment is only one step in a multi-stage psychological process of morality. In defense of CMD, however, Rest and his colleagues argue, "Some critics have said that Kohlberg's theory (dealing with moral judgment) is too cerebral, that it misses the 'heart of morality.' Nonetheless, the special function of the construct of moral judgment is to provide conceptual guidance for action choice in situations in which moral claims conflict" (p. 10). In this respect, and as Ford and Richardson (1994) have noted, managers often face situations where there are conflicting moral claims among the various interests in the organization that they manage. Therefore, the process of thinking about what is right should play an important role in managerial decision-making. In fact, many studies have found just such a link (see Treviño 1992, for a review).

Further, cognitive moral development theory has been criticized for gender bias, most notably with Gilligan's (1982) claim that Kohlberg's theory did not correctly characterize females. Subsequent empirical research has found, however, that

adult females have either similar or slightly higher CMD scores than males when measures derived from Kohlberg's theory are used (see Derry 1987, 1989; Ford and Richardson 1994; Walker 1984; and Rest et al. 1986 for reviews). Ambrose and Schminke (1999) recently reviewed research on gender differences in ethics and concluded that the continued search for gender differences would be fruitless. Therefore, although we will control for gender in our analyses, we do not hypothesize gender effects.

Belief in a Just World. The concept of belief in a just world (BJW) was introduced by Lerner (1965), and refers to the degree to which people think that the world is fair and just. The just world motive is a tendency to believe that the world operates in a consistent and just manner, where the good are rewarded and the bad are punished. Lerner (1980, 1981) and, more recently, Dalbert (2001) argue that BJW is rooted in social learning processes that occur over a long period of time where justice is seen to play a central role in culture and in the lives of individuals. BJW is thus a personal belief system, or cognitive style, that reflects a learned investment in the notion that good things happen to good people, and bad things happen to bad people.

Lerner (1980) found that individuals with a strong BJW believe that people generally get what they deserve *in the long run*, and so they plan their lives 'as if' they live in a just world as a means of bringing order to life and as a way of coping ultimately with life's tragedies. Lerner concludes on the other hand that people with a weak BJW tend to see themselves as victims of an unjust system. As such, they lack the psychological fortitude or protection afforded by the idealized vision of a just world held by persons with strong BJW.

A corollary of this is that a strong BJW can act as a kind of psychological buffer that protects the self from potential threats from unjust treatment. In fact, the idea that BJW serves as a psychological buffer from perceived harm is one of the most important principles of just world beliefs theory (Dalbert 2001; Lerner 1980). For example, Dalbert found that a high level of BJW is positively related to dealing effectively with life's adversities. According to Dalbert, a strong BJW serves as a personal resource when suffering from injustice because it helps the victims to find psychological 'meaning' in their experience.

Lerner (1965) notes further that, because BJW beliefs develop from a lifetime of experience, these beliefs operate at a preconscious level and are revealed in the person's reactions to events including ethical dilemmas (see Lerner 1980, 1981). Finally, it is important to note that BJW is distinct from Rotter's (1966) concept of internal-external control of reinforcement (also known as locus of control or LOC). Although LOC is also theoretically based on social learning processes, and Rotter originally included BJW as a dimension of LOC, Zuckerman and Gerbasi (1977a, 1977b) have subsequently demonstrated that BJW is both theoretically and empirically distinct from LOC.

CMD x BJW Interaction. In this study, we propose that CMD and BJW will interact to influence managers' ethical decision-making, such that those who are

high in both CMD and BJW will make the most ethical decisions; and those who are high on BJW but low on CMD will make the least ethical decisions. BJW represents a world view that reinforces the effects of cognitive moral development for these managers.

Those highest in moral reasoning have been found to behave more ethically because they look within themselves to principles of justice and rights for guidance in ethical decision-making situations. Such individuals are more likely to carry through and do what they think is right (see Treviño 1992). We propose that the resolve to do the right thing for these principled managers should be increased even more for those managers also high in BJW because they are likely to defend their personal principles and standards under duress by unethical senior management (Bandura 1991), believing that justice will be done in the long term. Thus, deeply held BJW beliefs are reinforcing of the principled level of reasoning. Moreover managers who are high on both BJW and CMD should have the psychological strength to deal with any adversity or victimization that might accompany standing up for their principles against those in positions of power (Dalbert 2001). Windsor and Ashkanasy (1995) found this psychological capacity was activated in principled auditors with high CMD and high BJW in defense of powerful client's unethical demands. These auditors had the strongest resistance to management pressure to verify a favorable but false profit.

At the other extreme, pragmatic managers (lowest level of CMD) have an obedience to authority orientation that is highly susceptible to the effects of reward systems. Based upon cognitive moral development theory (Kohlberg 1969), those at the *pre-conventional* level decide what is right or wrong based largely upon rewards and punishments. We expect high BJW to enhance this effect because high-BJW low-CMD managers have little reason to question the reward system and its support for unethical behavior. They will not question the reward system because it *is* the system that authority figures have created and because of their belief that people get what they deserve in the long run. Further, they will follow its dictates because of their obedience orientation. Therefore, in an environment that supports unethical decisions, we expect pragmatic managers with a high belief in a just world to make more unethical decisions.

Finally, accommodating managers (conventional level of moral reasoning) tend to look to powerful others and, to some extent, to the broader social system of rules and laws for guidance in ethical decision-making situations (Kohlberg 1969, 1976). Interestingly, the accommodating auditors who had low just world beliefs in the Windsor and Ashkanasy (1995) research were most reactive to client management bargaining power. It appears that, for the auditors in this category, personal just world beliefs increased the tendency to acquiesce to demands to be unethical from powerful others.

While these effects have been replicated in a Danish sample by Windsor and Warming-Rasmussen (2003), we were not sure that they would apply in the present study. This is because participants in the earlier research were practicing auditors

whose clients represented powerful others. In the present research this was not the case, because cues came from the organizational reward system, rather than in the form of direct pressure from top management. Consequently, it is unclear to whom such individuals will look for guidance (Jones and Ryan 1997). According to CMD theory, accommodating managers should think beyond rewards and punishments to begin to take into account the broader system of rules and laws. The effect of high BJW is unclear in this case. If the accommodating managers focus on the broader system of rules and laws, they may resist local reward system pressures. On the other hand, if they focus on the narrower organizational system, they will be likely to succumb. Given this doubt, we are unclear about the form of the interaction between CMD and BJW for accommodators. As a result, we did not formulate a specific hypothesis for the accommodating group.

In summary, we expected to find the following pattern of results for principled and pragmatic managers' ethical choices:

Hypothesis 3. There will be an interaction of CMD and BJW affecting managers' ethical decision-making.

Specifically,

Hypothesis 3a. Autonomous (high CMD) managers who believe in a just world (high BJW) will make more ethical decisions than those who have a weak belief in a just world (low BJW).

Hypothesis 3b. Pragmatic (low CMD) managers who believe in a just world will make more unethical decisions than those who have a weak belief in a just world (BJW).

CMD x Expectation Interaction. Finally, we anticipate an interaction of CMD and expectations that the organizational reward system condones unethical practices. Treviño (1986) proposed an interactionist model of ethical decision-making. The model proposed that those at the highest level of CMD would be least susceptible to management influence to be unethical. Autonomous individuals' ethical choices are expected to be highly consistent with their own beliefs about what is right. Therefore, they should make ethical decisions despite outcome expectancies that are aligned with reward system pressures to be unethical. On the other hand, those at the lowest level of CMD (pragmatics) should be most susceptible to reward system pressures because of their orientation toward obedience and punishment avoidance to protect their own self-interest. Therefore, pragmatics should make the most unethical decisions when the reward system pushes them in that direction.

Finally, and as we argued above, the prediction for accommodating managers is less clear because we are unsure whether they will respond to reward system pressure as reflective of powerful others in their environment or look beyond the reward system to the broader system of rules and laws. As such, we do not offer a specific hypothesis for accommodators, so our hypotheses are:

Hypothesis 4. There will be an interaction of CMD and managers' expectations that the organization condones and rewards unethical behavior affecting the managers' ethical decision-making.

Specifically,

Hypothesis 4a. Pragmatic (low CMD) managers who expect their organizations to condone unethical behavior (reward unethical behavior and/or punish ethical behavior) are likely to make more unethical decisions than those who do not harbor these expectations.

Hypothesis 4b. Ethical decision-making by autonomous (high CMD) managers is unlikely to be influenced by expectations that the reward system supports unethical conduct.

In summary, and consistent with Treviño (1986), we predicted that managers' ethical decision-making will be influenced by a combination of personal predispositions and expectations based on organizational cues. Figure 1 provides an overall summary of the relationships we expected to find. Specifically, we expected that managers' ethical choices would be determined positively by managers' CMD (H2) and negatively by their expectations that the organization condones and rewards unethical behavior (H1b), based in turn on their exposure to evidence that the organization engages in such practices (H1a). We expected further to find that the direct effect of CMD on ethical decision-making would be moderated by the manager's belief in a just world (H3a,b) and their expectations about the organization (H4a,b).

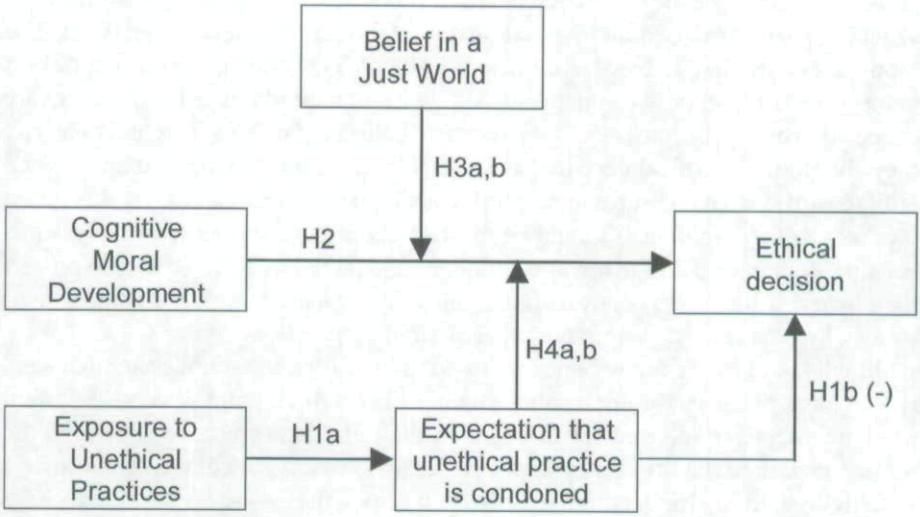

Figure 1: Hypothesized relationships

Methods

Sample

The sample for the study consisted of 215 MBA students attending an Australian university. All had at least two years' work experience, and most were currently working in professional and lower-level managerial occupations. One hundred seventy-four participants successfully completed all components of the study. The sample was 67 percent male. Age was measured in eight bands to preserve anonymity of participants. The mean and median age was Band 3 (30–35 years). Eleven percent of the sample described themselves as senior managers, 39 percent as middle managers and 24 percent as supervisors. The remaining 18 percent identified themselves as non-management employees or self-employed (a number of whom identified themselves as management consultants). Similar to age, tenure was measured in bands, 6 in this instance, and median tenure was Band 3 (4–6 years).

Measures

Cognitive Moral Development. As with much of Kohlberg's writing, measurement issues have been subject to ongoing controversy (Weber 1996). Kohlberg developed the Moral Judgment Interview (MJI) where data are collected though semi-structured interviews asking interviewees to respond to probe questions and explain their thought processes in deciding what is right when presented with hypothetical moral dilemmas. As an alternative, Rest (1979b) developed the Defining Issues Test (DIT), a pen-and-paper measure of CMD. We employed this measure in the current study. The DIT is a proprietary test that has been widely used (see also Rest 1993; 1994; Rest et al. 1999), and provides an objective test of moral development in questionnaire form, where output of 'P-scores' is continuous rather than MJI's coded responses. The DIT has also been extensively validated (see Rest et al. 1999).

In the present research, because of time constraints, we used the three-story version of the DIT, where respondents are required to rate three ethical dilemmas in terms of their ethical choices in similar situations. In this test, participants record their responses to three hypothetical moral dilemmas, "Heinz and the Drug," "Escaped Prisoner," and "Newspaper," and are told there are no correct answers. Instead, they were asked to indicate "yes," "no," or "can't decide" to the course of action set out in each story. Participants then responded to twelve statements based on Kohlberg's six stages of moral development, indicating the importance of each to the resolution of the dilemma in terms of a five-point scale ranging from "great importance" to "no importance." Finally, participants rank the 'top four' items that they consider are most significant in influencing the resolution of each dilemma. The DIT *P Score*, which is the index used to measure the relative importance participants give to principled moral considerations, is calculated from this list of 'top four' items, and includes only items that relate to stages 5 or 6 of Kohlberg's model. It is calculated as the sum of the product of the importance score and the

item weighting, where the top ranked item is given a weighting of 4 and the fourth ranked item is given a weighting of 1; and where any item not relating to Kohlberg stages 5 or 6 receives a weighting of 0. The final score is than divided by the number of stories (see Rest 1993). Rest (1979b, 1994) cites Cronbach alpha reliability for the 3-story DIT typically around the mid- to high .70s. To test Hypothesis 2, we trichotomized our sample, using Rest's (1979b) P-score cut-offs corresponding to each of Kohlberg's levels, into three ethical decision-making groups: autonomous (highest P-score), accommodating, and pragmatic (lowest P-score).

Belief in a Just World. To measure BJW, we used the same eleven-item scale adopted by Windsor and Ashkanasy (1995) and Warming-Rasmussen and Windsor (2003). This was originally a sub-scale of Collins's (1974) Likert-scale version of Rotter's (1966) internal-external control questionnaire (also known as locus of control, or LOC). Zuckerman and Gerbasi (1977a, 1977b), however, subsequently found that the BJW subscale is unrelated to the other dimensions of LOC; a finding that was verified by Ashkanasy (1985). Responses to each of the eleven items were based on a seven-point Likert scale, where 1 indicated strong disagreement, and 7 indicated strong agreement. Examples of items include, "In the long run people get the respect they deserve in this world," and "What happens to me is my own doing." Cronbach alpha reliability for this measure in the present study was .72.

In-Basket

The organizational variables in this study were manipulated using an in-basket simulation adapted from Treviño and Youngblood (1990). The in-basket exercise was completed prior to completing the DIT and BJW instruments. This was done in order to minimize reactivity, an important consideration in this study. For instance, Hypothesis 1a states that mere exposure to accounts of unethical behavior being rewarded or ethical behavior being punished can affect respondents' expectations. The in-basket required participants to take the part of a sales manager. It presented participants with an organizational chart and required them to respond to twelve memos or short messages requiring analysis and decisions regarding actions to be taken. Operationalization of the independent and dependent variables is described in the following paragraphs.

Organizational Reward System. There were two manipulated experimental conditions, unethical behavior rewarded and ethical behavior punished, and a control condition. The experimental conditions were manipulated through information contained in one of the incidents described in the in-basket exercise. The in-basket item described management's response to an employee's behavior regarding substandard, and potentially fatal, components in some of the organization's products. In the unethical rewarded condition, the employee only notifies the CEO of the problem. When the problem does not go beyond the CEO, the CEO rewards this 'discretion' with a promotion for the employee concerned. In the ethical behavior punished condition, the employee alerts others within the organization of the problem, and management seeks to punish him with a transfer to a less important position in an

isolated small town. Neither manipulation memo was present in the control condition. Instead, a bland note reporting organizational procedures was included.

Outcome expectancy. Four items were embedded within the post exercise questionnaire to measure participants' outcome expectations. These expectancies related to whether participants expected unethical behavior to be rewarded or ethical behavior to be punished in the organization, for example, "The . . . organization is one that condones unethical behavior." There were two items relating to each expectation, each rated on a seven-point Likert-type scale, and with one from each pair reverse scored. The mean of each pair was used as the expectancy measure. Thus, respondents' stated expectancies enabled the effectiveness of the experimental manipulations to be validated. Each expectancy score was in the direction of condoning unethical behavior, so that expectancy scores were summed to give the single, continuous measure of expectancy—that the organization condones and even rewards unethical behavior—used in our analyses. Cronbach alpha for this measure was .84.

Ethical Choice (Dependent Variable). The dependent variable in our study was responses to information that a fellow member of the organization is engaging in unethical behavior. We consider a recommendation that the company initiate disciplinary action to be the ethical response. The dependent measure was thus participants' response to an ethical dilemma posed by a single action item embedded in the in-basket exercise. The item presented participants with a situation in which one of the other sales employees was found to be paying kickbacks to customers in order to retain their business. Participants were required to make a decision about how to respond to the situation, and were given six options. The first three options were unethical, suggesting either that all communication relating to the kickbacks should be destroyed and the situation ignored (scored as 1), or that this action will depend on the extent of lost sales if the kickbacks are not paid (scored as 2 for 15 percent lost sales or 3 for 30 percent lost sales). The remaining three responses were considered to be ethical, and included ordering that the kickbacks stop or disciplinary action would be initiated (4), reporting the ethical breach to the boss (5), or launching a formal investigation and initiating appropriate company disciplinary action (6).

The six options were coded 1 through 6, with 1 being the most unethical response, and 6 being the most ethical. To check the veracity of responses to this scale, the first author asked twenty of his colleagues and students to rate the choices on a 1–7 scale. The result of this check was a correlation of .94 between respondents' ratings and the nominal rating. Comparing across ethical and unethical scores, mean respondent ratings were 5.88 and 1.34 respectively, $t\ (19) = 26.22$, $p < .01$.

Participants were also given the option of specifying their own response. There were 12 instances of such suggestions being made. The first author and a research assistant coded these on the 1–6 scale according to which option they most represented. (Two cases of disagreement were resolved by discussion.) Thirty-two respondents chose more than one option. If their choices were not mutually exclusive, then these

responses were coded as the higher scoring (more ethical) option, on the basis that a more ethical choice can subsume other, still ethical choices. Some participants, however, chose two or more mutually exclusive options, with one unethical option and one ethical, for example: "destroy all communication relating to the kickbacks and ignore the situation" and "Immediately launch a formal investigation." To avoid bias in attempting to interpret what was meant by such responses, they were coded as missing data.

Procedure

Prior to an in-class lecture in a regular MBA class meeting, ostensibly on managerial decision-making strategies, participants were asked, voluntarily and anonymously, to complete the in-basket followed by a post-exercise questionnaire. The instruments included, in order, measures of responses to expectations derived from the in-basket exercise items, the three-item DIT (Rest 1979b), demographic information, and the BJW Scale (Ashkanasy 1985; Collins 1974). After they had completed all the study instruments, participants listened to a short lecture on ethical decision-making and a debriefing of the exercise. Participants were reassured that the instruments were anonymous. They were also given the option of not returning the materials, although none chose not to return them. At the completion of the course, all participants were given a brief report on the outcome of the study.

Results

Descriptive Statistics

Descriptive statistics are given in Table 1. The table shows a significant correlation between DIT P-scores and ethical decision-making, as would be expected, and that just world beliefs were uncorrelated with any of the other measures. The table also shows that both P-score and ethical decision-making are significantly and positively correlated with expectancy; the latter being contrary to our prediction in Hypothesis 1b. This effect, however, was subsumed in an interaction with CMD that we discuss later.

It is also notable that the mean DIT-score for our sample of MBA students was 36.38, below the adult norm of 40 (Rest 1979a), but not dissimilar to mean scores reported by Weber (1990) and Warming-Rasmussen and Windsor (2003). Nonetheless, the mean score on ethical decision-making was 4.5 (SD = 1.18) on a 1–6 scale, indicating a generally ethical response, and providing sufficient variability for our analysis.

Hypothesis Tests

Hypothesis 1a proposed that managers exposed to accounts of unethical behavior being rewarded or ethical behavior being punished in their organization would report a higher expectation that the organization condones unethical behaviors. This hypothesis was tested using univariate analyses of variance. First, "unethical

Table 1: Descriptive Statistics

Variable	Mean	SD	Correlations					
			1	2	3	4	5	6
1. Gender (1= female, 2 = male)	1.67	0.47						
2. Age (measured in 8 bands)	2.99	1.36	.23**					
3. Organizational level (6 bands)	2.69	1.09	-.31**	-.31**				
4. Cognitive Moral Development (DIT P-score)	36.38	15.83	.18*	.01	-.04			
5. Belief in a Just World	4.15	0.77	.17*	.25**	-.13	-.02	(.72)	
6. Expectancy (that the organization condones unethical behavior)	8.68	1.62	.16*	-.07	-.01	.27**	-.03	(.84)
7. Ethical decision-making	4.50	1.18	.22*	.01	-.03	.71**	-.07	.31**

** $p \leq 0.01$; Cronbach alpha reliabilities shown in parentheses on the diagonal. N = 174

behavior rewarded" expectation scores, as the dependent measure, were compared across the different conditions. There was a significant effect of conditions on unethical rewarded expectancies, F (2,171) = 6.55, $p < .01$. We then compared "ethical behavior punished" expectation scores across conditions. Again, we found a significant overall effect, F (2, 171) = 6.68, $p < .01$.

In both instances, *post hoc* comparisons showed that responses from the two unethical conditions (ethical behavior punished/unethical behavior rewarded) could not be separated, but both were significantly different from control group responses. In other words, respondents reported higher levels of expectation that the organization condones unethical behavior irrespective of "ethical behavior punished" or "unethical behavior rewarded" manipulation. We therefore conducted a further analysis using the sum of the expectancy scores as the dependent variable, and compared this across conditions. This was appropriate because of the overlap in the effects of the experimental conditions. Results in this instance again showed a significant difference between both of the experimental conditions and the control group, F (2,171) = 10.43, $p < .01$. Mean combined expectancy scores (max = 14) were: unethical behavior rewarded: 9.57, (SD = 1.42); ethical behavior punished: 8.74 (SD = 1.55); control: 7.85 (SD = 1.47). Thus, Hypothesis 1a was supported.

Note, however, that no evidence was found for expectancy as a full mediator of experimental condition on ethical decision-making when we conducted the Baron and Kenny (1986) test of mediation. This is because we were unable to find a direct effect of experimental condition on ethical decision-making, nor on any of the interactions. The necessity for a significant direct relationship in mediation is disputed, however (e.g., see MacKinnon, Warsi, and Dwyer 1995). In effect, and as Treviño and Youngblood (1990) also found, this constitutes an example of *weak* mediation (see also Cohen and Cohen 1983; Tzelgov and Henik 1991).

Hypothesis 2 proposed that moral reasoning would be associated with ethical decision-making. This was borne out in the correlations (where CMD is treated as a continuous variable). As a further test consistent with our theoretical model, we divided participants into three ethical decision-making groups based on Kohlberg's (1969) three CMD levels: autonomous (high CMD), accommodating (mid CMD),

and pragmatic (low CMD). Based on Rest's (1979b) suggestions, DIT P-score cut-offs between groups were 27 and 41. The resulting group sizes were 56, 58, and 60 for low, mid, and high CMD respectively. Participants' ethical choice scores were then compared across the three groups using analysis of variance. The results show significantly lower ethical choice scores for the low CMD (pragmatic) group compared to the other two groups F (2, 171) = 63.2, $p < .01$. Means (1–6 scale) were: autonomous: 5.37 (SD = 1.33); accommodating: 5.02 (SD = 1.42); and pragmatic: 3.05 (SD = 1.51). Although the means were in the expected direction, the hypothesized difference between the autonomous and the accommodating groups was not statistically significant, providing only partial support for Hypothesis 2.

Hypothesis 3 and associated sub-hypotheses concerned the interaction between moral reasoning (DIT P-scores) and just world beliefs (BJW scores) in their effects on ethical decision-making. As we employed continuous measures of these variables, we investigated the interaction using hierarchical multiple regression, with respondents' ethical decision-making score as the dependent measure (see Cohen and Cohen 1983; Jaccard and Turrisi 2003). We controlled for gender, age, and organizational level in Step 1. P-scores and BJW scores were entered in Step 2, and the product term representing the interaction was entered in Step 3. The change in R^2 between Models 2 and 4 was examined to assess its significance. Raw scores and their product were used, rather than centered data (Kromrey and Foster-Johnson 1998), although we did check the results using centered data and, consistent with Kromrey and Foster-Johnson, we found no differences. The results of the regression are shown in Table 2 (Models 1, 2, and 4).

As can be seen from the significant R^2 change in Model 4 over Model 2, the results confirm the existence of a significant interaction involving P- and BJW scores. Figure 2 illustrates the nature of this interaction. Instead of the usual method of depicting interactions in terms of scores ±1 SD from the mean, however, we trichotomized the data based on the three CMD groups identified in our theory, so that our interpretations would be consistent with our theoretical model. The figure was thus derived by taking P-score values at the mean of the three range groups as

Table 2: Hierarchical regression of BJW, expectancy (that unethical behavior is condoned), and P-score (CMD) on ethical decision-making behavior.

Variable entered	Model				
	1	2	3	4	5
Gender	.24**	.11	.09	.08	.06
Age	-.04	.01	.01	-.01	.03
Organizational level	.04	.03	.03	.03	.05
BJW		-.08		-.10	
Expectancy			.11		.13*
CMD (DIT P-score)		.69**	.67**	.67**	.64**
BJW * CMD				.26**	
Expectancy * CMD					.50**
R^2	.05**	.51**	.51**	.54**	.58**
Adjusted R^2	.03	.50	.50	.52	.57
R^2 change		.46**	.45**	.03**	.07**

* $p < .05$; ** $p <= 0.01$; N = 174

defined by Rest (1979b). The resulting three group sizes were 60 (autonomous, or high CMD), 58 (accommodating or mid-CMD) and 56 (pragmatic or low CMD). To maintain consistency, we then trichotomized the group based on BJW scores. The resulting cell sizes ranged from 14 to 27, with a mean cell size of 19.2. Figure 2 reveals that just world beliefs did not have a significant impact on ethical decision-making for accommodating participants. For autonomous (high CMD) participants, however, higher levels of just world beliefs resulted in more ethical decision-making, consistent with our expectations in Hypothesis 3a. For pragmatic participants, on the other hand, higher levels of just world beliefs resulted in less ethical decision-making, consistent with Hypothesis 3b.

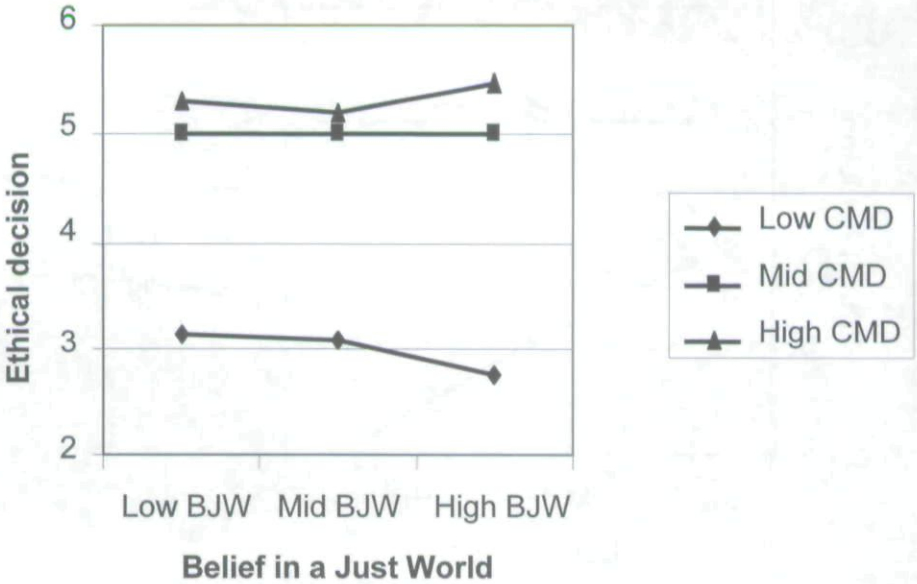

Figure 2: Interaction of CMD and BJW on ethical decision-making

Hypothesis 4 and the associated sub-hypotheses concerned the interaction between moral reasoning (DIT P-scores) and expectancy that the organization condones unethical behavior (sum of rewarding unethical plus punishing ethical response). This was again tested using hierarchical multiple regression, with gender, age, and organizational position controlled for (Model 1), and the product term representing the interaction (Models 3 and 5 in Table 2). This analysis also addressed Hypothesis 1b, that expectancy would be related to more unethical decision-making. In this instance, Model 2 results confirmed that expectancy and P-scores correlated positively with ethical decision-making. The addition of the interaction term to the regression in Model 5 yielded a significant R^2 change over Model 3, however, indicating that the main effects were subsumed in an interaction of P-score and expectancy. Higher levels of expectancy that the organization condones unethical behavior was shown to be associated with more ethical decision-making for high

CMD (autonomous) respondents, but with less ethical decision-making in low CMD (pragmatic) respondents. There was no effect of expectancy for the mid-CMD (accommodating) respondents. The interaction is illustrated in Figure 3, again using a trichotomized model to be consistent with our theory (cell sizes ranged from 10 to 28). Hypothesis 4 was thus supported in respect of the pragmatic managers, but not for the autonomous managers, where we predicted no effect for outcome expectancies. Noteworthy here is that the difference between autonomous and pragmatic managers' ethical decision scores (5.80 vs. 2.05) associated with an expectation that unethical behavior is condoned was large and significant ($p < .01$).

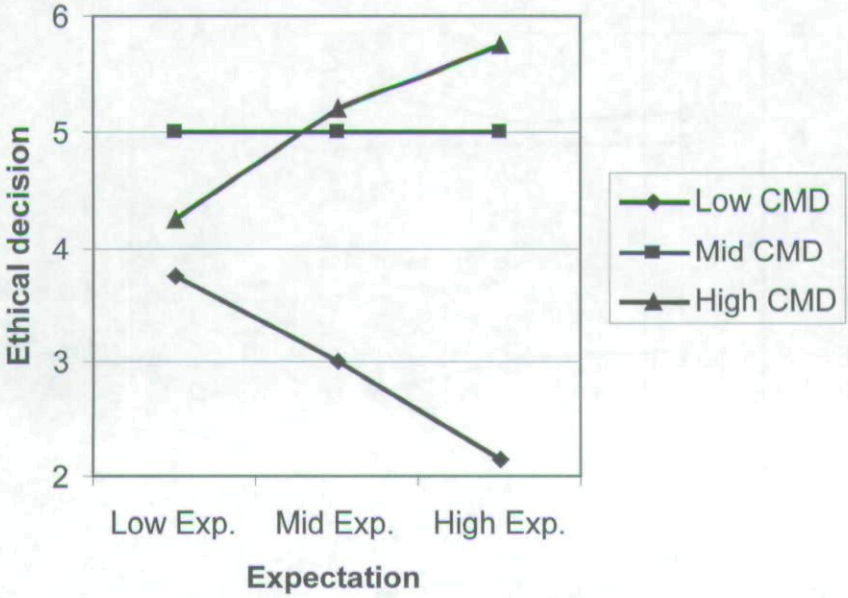

FIGURE 3. Interaction of CMD and expectancy on managers' ethical decision-making

Discussion

In this study, we proposed to extend the "bad apples/bad barrels" perspective on ethical decision-making by investigating whether personal characteristics (cognitive moral development and belief in a just world) interact with each other and with perceptions of the organizational reward system to influence mangers' ethical decision-making. Findings supported this proposition in general, although some of the interactions we found varied from our specific predictions. As we predicted, exposure to information about management condoning unethical behavior (either by rewarding unethical behavior or by punishing ethical behavior) influenced observers' outcome expectancies and these outcome expectancies influenced ethical decision-making behavior. Further, we found that, for high CMD managers, higher levels of just world beliefs and higher levels of expectancy that the organization condones unethical behavior both resulted in more ethical decisions. For pragmatic managers,

higher levels of just world beliefs and higher levels of expectancy both resulted in less ethical decisions. There was no effect of just world beliefs or expectancy for the mid-CMD managers. We discuss these findings below.

Findings also supported the notion that personal expectancy mediates the effect of reward system pressures on ethical decision-making. Like Treviño and Youngblood (1990), however, we did not find evidence of a direct link between perceived reward system pressures and ethical decision-making. In this sense, our results did not support mediation in terms of the Baron and Kenny (1986) statistical model, which requires the direct link to be reduced when the mediator is introduced into the model. We note, however, that authors such as MacKinnon, Warsi, and Dwyer (1995) dispute that a direct effect is a necessary precondition for mediation. Cohen and Cohen (1983) and Tzelgov and Henik (1991) comment further that the direct effect can be negated by the presence of suppressor variables, including interactions. We conclude, similar to Treviño and Youngblood (1990), that our results represent weak mediation only, meaning that the reward system pressures influence outcome expectancies and these outcome expectancies influence ethical decision behavior.

Cognitive Moral Development, Outcome Expectancies, and their Interaction: Influence on Ethical Decision-Making

As others have found, the correlation between CMD scores and ethical decision-making was significant (and quite strong) in this study, although the difference in ethical choice between the highest CMD (autonomous) and middle CMD (accommodating) groups was not significant. This result suggests that the responses of the lowest CMD (pragmatic) group were qualitatively different from the others and that this group is much more likely than the others to make unethical decisions.

The managers in this study were aware of and sensitive to reward system information, suggesting that such information is important. Nonetheless, the pragmatic (lowest CMD) managers were most reactive to reward system expectations. They made the most unethical decisions when they had high expectations that the organization condoned unethical behavior (see Figure 3). This finding is consistent with Rest's (1994) view that pre-conventional moral development is associated with a simplified and egocentric world-view based on what he refers to as "instrumental morality." In this instance, senior managers should be aware that line managers and supervisors who are lowest in cognitive moral development take their cues from the reward system and will make more unethical decisions if they perceive that the reward system supports such conduct. Pragmatic managers appear ready to take advantage of senior management's support for unethical behavior, believing they will be rewarded for their self-interest.

This finding is also consistent with the finding of an interaction of CMD and expectancy on ethical decision-making. Based on Treviño and Youngblood (1990), we predicted that the expectation that the organization condones unethical behavior would be associated with less ethical decision-making. This effect, however, was apparent in our study only for the pragmatic (low CMD) managers in our sample.

In fact, the autonomous (high CMD) managers made even more ethical decisions when they found themselves in an unethical organizational environment (see Figure 3). Autonomous managers appear to react according to what Rest and Narváez (1994) refer to as "the morality of non-arbitrary social cooperation" (p. 5). In this instance, evidence that senior management condones unethical behavior elicits in autonomous managers a resolve to make even more ethical decisions. This result has practical importance and raises future research questions. It says that those managers who are at the highest level of moral development are so sensitive to an environment characterized by unethical reward systems that they strive even more to behave ethically. This is exactly what we would expect of principled "autonomous" managers, however, and it is arguable that such managers are desirable organization members. Still, we don't know whether such managers will choose to stay in an organization they perceive to be unethical or leave. With an unethical administration, perhaps autonomous managers believe that they can just 'wait it out.' On the other hand, their propensity to take action may cause them to look for a more compatible environment and leave or perhaps to stay and blow the whistle on the organization. Future research should consider this important question.

For mid-level cognitive moral development managers, who we characterized as "accommodating," outcome expectancies made little difference. Laws and broader societal norms, regardless of the exigencies of the immediate reward system context, may influence such managers more or balance the influences of the immediate reward system. Qualitative, interview-based research (see Weber 1990) will be needed in order to better understand their thought processes.

Finally, the low-CMD managers, who we characterized as "pragmatic," were the ones to take advantage of an expectation that the organization condones unethical behavior. This is, however, entirely consistent with Kohlberg's (1969, 1976) theory, where pre-conventional individuals are expected to base their decisions only on the consequences of their actions. For these managers, realization that the organization condones unethical behavior gives them the incentive to behave unethically as well.

The significant interaction between outcome expectancies and CMD is an important contribution to the literature because it supports the interactionist perspective proposed by Treviño in her ethical decision-making model (Treviño 1986). Treviño and Youngblood (1990) did not find this interaction in follow-up work. Thus, this study provides key empirical support for the interactionist perspective and suggests that individuals respond to outcome expectancies differently depending upon their level of CMD.

The Interactive Influence of Cognitive Moral Development and Just World Beliefs on Ethical Decision-Making

It is important to note that scores on cognitive moral development and belief in a just world are not correlated. In our study, these constructs represented two theoretically and empirically distinct individual differences that interacted to influence ethical decision-making. Autonomous managers with a strong belief in a just world made the most ethical choices, as expected. Their beliefs in a just world are

consistent with justice-based principled reasoning and, when combined, produce an even higher propensity for making ethical choices.

Strong just world beliefs, however, made no difference at all for the accommodators (see Figure 1). This is at odds with earlier research on auditors' ethical decision-making by Windsor and her colleagues (Windsor and Ashkanasy 1995; Windsor and Warming-Rasmussen 2003), who found that accommodators with low BJW were most reactive to external pressures. Earlier, we discussed reasons why the earlier findings for this group may not have applied in the present research. In particular, pressure to make unethical choices in the previous research was derived from powerful others (the auditors' clients), while pressure to conform in the present research was derived from the organization's reward systems. In this instance, Kohlberg's theory would suggest that reward system pressure should only influence those who are at the lowest level of cognitive moral development (the pragmatics), which is what we found.

The difference in these findings compared to the research by Windsor and Ashkanasy (1995) and Windsor and Warming-Rasmussen (2003) serves to underline the need to specify clearly the type of external pressure involved; something that has not been done in previous models of ethical decision-making (e.g., Treviño 1986). Reward system pressures appear to have the most effects on those at the highest and lowest levels of cognitive moral development. Those at the lowest levels simply behave in accordance with reward system pressures. Those at the highest levels are highly sensitive to reward system pressures to behave unethically and react against them. The responses of those in the middle are less clear and may depend on other organizational system and broader system factors.

Finally, strong just world beliefs actually resulted in less ethical choices for pragmatics. The latter finding suggests that pragmatics have a different mind-set regarding what constitutes a just world. Lerner (1980) argued that people with strong beliefs in a just world believe that people get what they deserve. Hence, once again, our results demonstrate that pragmatic managers respond primarily to the consequences of behavior, just as Kohlberg (1969, 1976) predicted. Thus, pragmatic managers with high just world beliefs seem to be more inclined to act unethically. They may be saying, "Since people in this world get what they deserve, then should I not at least see what I can get for myself?"

Implications, Limitations, and Conclusions

This research has demonstrated once again the importance and impact of messages about the organizational reward system, particularly for low cognitive moral development (pragmatic) managers. These managers succumbed easily to messages suggesting that unethical behavior is condoned in the organization. Our finding that pragmatics make even more unethical decisions when they believe in a just world serves to underline their instrumental egoism, reflected in a belief that unethical behavior for personal benefit is justifiable in certain circumstances. In fact, pragmatic managers with high just world beliefs represent the archetypal manager described by Friedman (1962),

self interest manipulated by reward and punishment. Clearly, this type of manager should concern society and should preferably not be placed in unsupervised positions or in positions of responsibility in organizations. We know of no evidence, however, that organizations are using measures of cognitive moral development to identify potential problem managers, although the evidence provided here suggests that perhaps they should do so. On the other hand, the organizations that are condoning unethical behavior through their reward systems are the least likely to take such action.

Interestingly, autonomous managers reacted to such information with significantly more ethical response choices. Our results also suggest that autonomous managers are highly sensitive to issues of ethicality. Thus, for autonomous managers, information suggesting that management encourages unethical conduct may trigger the higher-level ethical judgment processes of which they are capable, leading to even more ethical decisions (see Rest 1994).

These results confirm and extend the Treviño and Youngblood (1990) findings, but it is notable that we also found an interaction of just world beliefs and moral reasoning. Autonomous managers with strong just world beliefs made the most ethical choices. In this instance, just world beliefs appeared to strengthen the autonomous managers' resolve to do what they think is right. This finding suggests that organizations should look for high CMD, high BJW managers for positions of responsibility. They will then be the ones responsible for designing the reward system that will guide others.

A further interesting implication arises from the differences between the results of the present research in respect of the accommodating group and earlier findings in an auditor context (Windsor and Ashkanasy 1995; Windsor and Warming-Rasmussen 2003). While we found that the accommodating group was the least reactive to reward system pressure, essentially lying mid-way between the responses of the autonomous and pragmatic groups, Windsor and her colleagues found that the accommodating auditors were the most reactive to client power. We suggested that this difference was reflective of the different contexts of the research. In this instance, future research should test different types of external factors (e.g., organizational, client, etc.) that are likely to influence the ethical decision-making of managers at different levels of cognitive moral development. In particular, the accommodating managers should be susceptible to external influences, but of a different type. They submit to significant or authoritative others. Since no such information was provided in our study, accommodating managers may therefore have relied upon what they think powerful others in their own current work environments would expect.

Our results are subject to five caveats. The first of these is that the study was based on an in-basket exercise administered in a classroom situation. Respondents were primarily practicing managers, however, so it is reasonable to expect that their responses would reflect what they may do when put in a similar situation in their work life. Moreover, Randall and Gibson (1990) in a review of methodology in business ethics research concluded that the use of student respondents does not compromise the external validity of studies of ethical decision-making. Finally, we note that in-basket exercises have been effectively used in many decision-making studies,

including Treviño and Youngblood (1990) where respondents were also MBAs. In addition, within the in-basket, the ethical decisions were embedded in a larger set of decisions in order to reduce the likelihood of socially desirable responding.

Second, we note that the mean P-score for this sample (36.38) is relatively low compared to Rest's (1979a) mean P-score of 40. This score, however, is consistent with Windsor and Ashkanasy's (1995) findings. They reported mean P-scores of 30.60 (n = 49) and 37.8 (n = 177). Other studies in business settings have reported similar mean scores (e.g., Elm, Kennedy, and Lawton, 2001: mean P-score = 37.31, n = 197; Ponemon, 1993: mean P-score = 36.21, n = 70).

A third limitation is that the stimulus material included only cues that the organization condoned unethical behavior (reward unethical, punish ethical). Arguably, our study could have included "punish unethical" and "reward ethical" conditions. Our choice to concentrate on condoning unethical behavior, however, was consistent with the theory we developed, based on the idea that unscrupulous managers pressure employees to act unethically.

Fourth, our findings are based on instrumentation completed in one sitting, and therefore subject to common method variance (Podsakoff et al. 2003). The different instrumentation that we employed for each variable, however, should minimize this issue (see Podsakoff et al. 2003). Further, interaction effects are less susceptible to common methods bias. Nonetheless, scope clearly exists for field research to see if our findings will be replicated in operating organizations. As with all research into ethical decision-making and behavior, however, collection of field data represents a challenge.

Finally, the interactions we report account for a small proportion (6 percent and 3 percent respectively) of the variance in the ethical choice variable. These effect sizes are, however, comparable with those reported in the earlier studies of CMD and ethical choice (e.g., Treviño and Youngblood 1990; Windsor and Ashkanasy 1995). Moreover, they exceed the established minimum threshold for interaction effect sizes in the social sciences (e.g., see Champoux and Peters 1987; Chaplin 1991; Evans 1985; McClelland and Judd 1993). These authors note the difficulty in finding evidence for interaction effects, especially in field studies. Evans (1985) recommends that the minimum threshold for an interaction to be meaningful is 1 percent of variance accounted for.

In conclusion, our findings support previous research regarding the influence of cognitive moral development on ethical decisions (Kohlberg 1969, 1976; Rest 1979a, 1994; Rest et al. 1999), as well as the interactionist perspective on ethical decision-making, in particular the interaction between cognitive moral development and reward and punishment expectancies (Treviño 1986; Treviño and Youngblood 1990). The findings suggest that management should pay attention to the reward system messages that it conveys to employees and consider the differential impacts of those messages on different types of employees. Finally, the interactive influence of cognitive moral development and belief in a just world on ethical decision-making suggests that ethical decision-making involves a complex interaction of cognitive styles and deeply rooted belief systems.

Acknowledgements

This study was conducted under a grant of the Australian Research Council. The authors would like to express grateful thanks to Elizabeth George and Stuart Arnold for their cooperation in allowing us to run this study during their classes. We also express our gratitude to Michael Bibo, Neal Knight-Turvey, and Amanda Roan for assistance with development of the study instruments and the initial data analyses, and to Kaylene Ascough, Marie Dasborough, and Mike Dempsey for their comments on earlier drafts of this manuscript. Finally, we express our thanks to editor Gary Weaver and three anonymous reviewers for their guidance and helpful advice.

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