

Bad Apples in Bad Barrels: A Causal Analysis of Ethical Decision-Making Behavior

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This study proposed and tested a multiple-influences causal model of ethical decision-making behavior. Social learning, stage of cognitive moral development (CMD), and locus of control (LC) were hypothesized to influence ethical decision making. The mediating influence of outcome expectancies was also hypothesized. Social learning conditions (vicarious reward, vicarious punishment, and control) were manipulated with an in-basket exercise. Path analysis revealed that ethical decision making was influenced directly by CMD. LC influenced ethical decision making directly and indirectly through outcome expectancies. Vicarious reward influenced ethical decision making indirectly through outcome expectancies. No support was found for the direct effects of vicarious reward or punishment. Future research directions and theoretical and practical implications are discussed.

Week after week, the American public is treated to vivid media revelations of wrongdoing in business, government, educational, and religious institutions. Clearly, ethical and unethical behavior in organizations is a relevant social issue demanding the attention of organizational scientists. Consistent with Waterman (1988), we designed this study to investigate two areas of ethical decision making that are of interest to psychologists: moral reasoning (the cognitive processes people use in making ethical decisions) and moral behavior (what individuals do in ethical dilemma situations). We proposed and tested a causal model of the organizational and individual influences on ethical decision-making behavior in the organization. We also investigated the mediating role of cognitive processes.

The "bad apples" argument attributes unethical behavior in the organization to a few unsavory individuals (Simpson, 1987) lacking in some personal quality, such as moral character. Research based on this individual differences approach has found such measures as locus of control (LC), economic value orientation, political value orientation, Machiavellianism, and cognitive moral development (CMD) to be significantly related to ethical decision-making behavior (Hegarty & Sims, 1978, 1979; Trevino, Sutton, & Woodman, 1985).

According to the "bad barrels" argument, something in the organizational environment poisons otherwise good apples. This view, supported by survey research, attributes unethical

behavior to competition, management's results orientation, the lack of reinforcement of ethical behavior (Baumhart, 1961; Brenner & Molander, 1977), requests from authority figures to behave unethically (Rickles, 1983), and peer behavior (Zey-Ferrell & Ferrell, 1982; Zey-Ferrell, Weaver, & Ferrell, 1979). Similarly, laboratory experiments have found that extrinsic rewards for unethical behavior and increased competitive pressure significantly increased unethical decision behavior (Hegarty & Sims, 1978), whereas the existence of an organizational ethics policy, threat of dismissal, and direct punishment of unethical behavior significantly reduced unethical decision behavior (Hegarty & Sims, 1979; Laczniak & Inderrieden, 1986; Trevino et al., 1985).

We used a multiple-influences perspective based on Trevino's (1986) model of ethical decision making in the organization. Ethical and unethical behavior in organizations is viewed as a consequence of both organizational and individual influences.

Previous research has suggested that reward systems can influence ethical and unethical behavior through direct rewards and punishments (Hegarty & Sims, 1978; Laczniak & Inderrieden, 1986). We took an indirect learning approach based on social learning theory (Bandura, 1971; Davis & Luthans, 1980; Manz & Sims, 1981), in which individuals are assumed to learn vicariously by observing what happens to others in ethical decision-making situations. We focused on the use of vicarious learning to support ethical behavior in the organization by rewarding ethical behavior or punishing unethical behavior.

Social learning theory suggests that vicarious learning influences behavior through its influence on the observer's outcome expectancies (Bandura, 1986; Manz & Sims, 1981). Seeing others reinforced for certain behaviors (either ethical or unethical) arouses observers' expectancies that they will be similarly reinforced. Thus, we hypothesized that vicarious learning would influence ethical behavior through outcome expectancies.

The multiple-influences perspective suggests that individual differences also may influence ethical decision-making behavior. Rotter's (1966) Internal-External Locus of Control Scale

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measures an individual's perception of how much control he or she exerts over events in life. LC has been directly related to moral behavior, such as whistleblowing (Dozier & Miceli, 1985), resistance to social pressure, cheating, willingness to harm another individual if told to do so by an authority figure, and helping behavior (Lefcourt, 1982). The research suggests that individuals with internal LC are more likely to do what they think is right and to tolerate discomfort or penalty for doing so.

LC may also be related to outcome expectancy beliefs in that individuals with internal LC are more likely than those with external LC to recognize the contingency relationship between their behavior and outcomes (Lefcourt & Wine, 1969; Seeman, 1963). Thus, LC was hypothesized to influence ethical decision-making behavior directly and through its influence on outcome expectancies.

CMD (Kohlberg, 1969) is another individual difference construct expected to influence ethical decision-making behavior (Trevino, 1986). Kohlberg's (1969) framework provides a hierarchical continuum of six stages of CMD. With each successive stage, the individual's moral judgment grows less and less dependent on outside influences. In addition, the individual moves from a self-centered conception of what is right to a broader understanding of the importance of social contracts and principles of justice and rights.

Empirical tests of the CMD-behavior relationship have supported a moderate positive relationship between CMD stage and moral behavior (Blasi, 1980), including cheating (Grimm, Kohlberg, & White, 1968; Malinowski, 1979; Malinowski & Smith, 1985), resistance to pressure from an authority figure (Kohlberg, 1969), helping behavior (Kohlberg & Candee, 1984), whistleblowing (Brabeck, 1984), and ethical decisions in business situations (Penn & Collier, 1985; Stratton, Flynn, & Johnson, 1981; Trevino et al., 1985). Thus, CMD was hypothesized to independently and directly influence ethical decision-making behavior.

Ethical decision-making behavior has two major components. The first is a behavioral choice component. In ethical dilemma situations, individuals must choose a course of action. Ethical decisions, however, also have a normative-affective component (Etzioni, 1988). Individuals often struggle with their thoughts and feelings about what is right—whether they did the right thing. In this study, we attempted to capture both components of ethical decision-making behavior.

The proposed causal model is depicted in Figure 1. Vicarious reward and punishment were predicted to influence ethical decision-making behavior directly and indirectly through their influence on the observer's outcome expectancies. Rewarding ethical behavior or punishing unethical behavior was expected to increase outcome expectancies, which in turn were expected to lead to more ethical behavior. We expected that internal LC subjects would have higher outcome expectancies and would behave more ethically than external LC subjects. Subjects at higher stages of CMD were expected to behave more ethically.

Method

Sample and Setting

The subjects for the study were 94 MBA students (72 men and 21 women) enrolled in a course on organizational behavior at Texas A&M

University. One subject did not provide gender information. Ages ranged from 22 to 45 years ($M = 26$). Years of work experience ranged from 1 year to 28 years ($M = 4.8$).

Procedure

In lieu of an announced class on decision making, subjects participated in a 2-hr management decision-making exercise. Each subject chose an individual behavioral laboratory room and was provided an exercise identification number to be used to keep exercise materials together. Subjects completed an in-basket exercise, a postexercise questionnaire, and the CMD and LC measures. Finally, each subject was thanked, told that an explanation would be provided later, and asked not to discuss the details of the exercise. Later in the semester, Linda Trevino visited classes to discuss the findings.

An in-basket exercise (available from Linda Trevino) was designed and pilot tested. It provided the vicarious learning manipulations and measured the dependent variable, ethical decision-making behavior. Subjects were instructed to play the role of Pat Sneed, national sales manager for an electronics corporation.

The in-basket contained 15 items, including an organization chart, a company newsletter, and 13 letters, memos, or phone messages. Two of the items were designed to provide the study manipulations. The 13 letters, memos, and phone messages presented the decisions to be made. Two of these decisions (described in more detail later) involved ethical concerns. The other 11 decisions were included to mask the ethics focus of the study.

Subjects were given 15 min to read through the in-basket, ostensibly for the purpose of setting priorities. This step ensured that subjects would receive information relevant to the manipulations before making decisions. Subjects were then provided with response forms for recording decisions during the next 30 min.

Independent Variables

Vicarious learning manipulations. Three different in-baskets were distributed to subjects randomly assigned to the ethical-behavior-rewarded, unethical-behavior-punished, and control conditions. In each condition, the in-basket provided information about management's response to two unethical behavior incidents, thus providing the vicarious learning manipulations. The two incidents were (a) substitution of potentially hazardous substandard wiring in a product and (b) sexual harassment.

In the unethical-behavior-punished condition, the individuals who committed these actions (sexual harassment of a subordinate, substitution of substandard wiring) were disciplined. In the ethical-behavior-rewarded condition, the individuals who reported these same actions (whistleblowers) were rewarded. Whistleblowing was used to represent ethical behavior because it is a moral action that requires an active decision and can therefore be reinforced. Many examples of ethical behavior represent the absence of unethical behavior and are difficult to reward. In the control condition, the same unethical behavior incidents were presented, but the organization's responses were left ambiguous.

Objectively, the vicarious reward and punishment manipulations were equivalent in strength. For example, in the substandard wiring situation, the vicarious reward condition provided for a promotion and salary increase to the manager who reported the problem. In the vicarious punishment condition, the individual who substituted the wiring received a demotion and salary decrease. In the sexual harassment situation, 2 weeks vacation was balanced against 2 weeks suspension without pay. Despite this objective equivalence, a given gain is not necessarily equivalent to a given loss.

In addition to the influence of vicarious reinforcement on behavior,

we were interested in subjects' perceptions of management's responses. Therefore, in the postexercise questionnaire, subjects in the vicarious reward and punishment conditions were asked open-ended questions about whether they thought management's responses were appropriate and what management should have done differently, if anything. Responses to these questions provided an indirect manipulation check.

Outcome expectancy. To measure subjects' outcome expectancies, the postexercise questionnaire asked subjects to rate management's probable response to 10 behaviors. Cronbach's alpha for the 10-item scale was .75. Five of the 10 items dealt with ethical behaviors, and the other 5 focused on unethical behaviors. The behaviors were taken from those used in the in-basket (the manipulation behaviors and the ethical decision situations). For example, subjects were asked to rate management's probable response to the following ethical and unethical behaviors: (a) "the manager reports sexual harassment to higher authorities," or (b) "the manager substitutes a cheaper but potentially unsafe product component to cut costs." A 5-point scale ranging from *severe punishment* (1) to *major reward* (5) was used to record the subjects' expectancies for the outcome associated with each behavior. For the unethical behavior items, the scale was reversed such that a higher number represented a belief that the organization would punish unethical behavior. Thus, on the 10-item outcome expectancy scale, a higher score represents the expectation that the organization supports ethical behavior and discourages unethical behavior, that is, that ethical behavior will be rewarded and unethical behavior will be punished.

CMD. The Defining Issues Test (DIT) (Rest, 1979) was used as a measure of CMD. The DIT was administered after completion of the in-basket materials to avoid sensitizing subjects to the experiment's ethics focus. Subjects were told that the additional questionnaires (DIT and LC) were unrelated to the in-basket and were advised to respond as themselves.

The DIT is considered to be the most prominent objective test of

CMD (Gibbs & Widaman, 1982). It presents six hypothetical ethical dilemmas and, for each, a list of considerations for determining what is right. Subjects rank the four most important considerations, and these rankings are used to create the P score. A high P score indicates that the subject gives more importance to principled (Stage 5 and 6) considerations (i.e., is higher in CMD). Reported test-retest reliabilities have been in the high .70s or .80s, and Cronbach's alpha index of internal consistency has been reported to be in the high .70s (Davison & Robbins, 1978; Rest, 1979). In addition, many tests of validity have been conducted (Rest, 1979). For this sample, Cronbach's alpha was .49. Because the DIT test items are factorially complex and not parallel to each other, the alpha should be considered a lower bound to, rather than an estimate of, reliability (Davison & Robbins, 1978). In addition, Rest (personal communication, June 1988) suggested that the test's reported reliabilities have been based on larger, more heterogeneous samples (Davison & Robbins, 1978). Although from a psychometric perspective the computed alpha is admittedly low, we included the measure because of the theoretical importance of the CMD construct.

The DIT provides an internal reliability check for consistency of responses and social desirability. Rest (1979) recommended eliminating subjects from the analysis if they exceed the cutoff for these tests. Thus, 8 subjects were assigned a missing value because of response inconsistencies, an inappropriate test-taking set, or both.

Locus of control. Rotter's (1966) 29-item forced-choice Social Reaction Inventory was used as a measure of LC. A high score indicates external LC and a low score, internal LC. For this sample, the alpha index was .74. Three subjects with incomplete questionnaires were assigned missing values.

Dependent Variable

The behavioral choice component of the dependent variable, ethical decision-making behavior, was based on subjects' choice behavior in

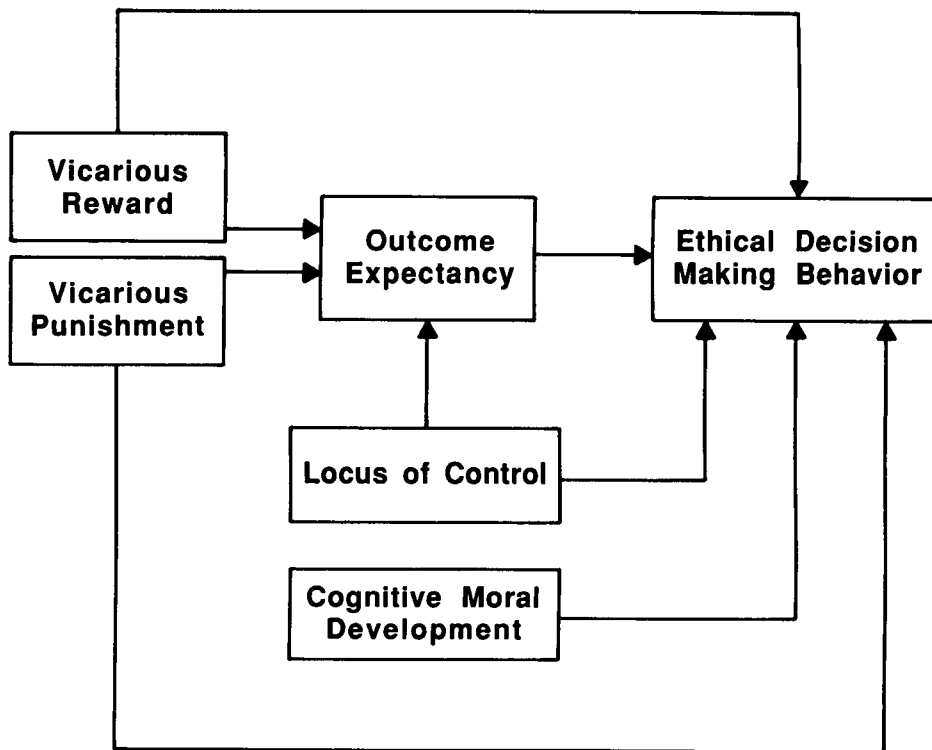


Figure 1. Proposed model of ethical decision-making behavior in organizations.

the two in-basket decisions involving ethical concerns. Two different opportunities to engage in ethical decision-making behavior were provided because unethical behavior occurs relatively infrequently, and pretesting suggested that only 20% of subjects would be likely to make an unethical decision given a single opportunity. Thus, subjects were considered to be unethical if they made at least one unethical choice, given the two opportunities. They were considered to be ethical if they made an ethical choice in both cases.

The first decision opportunity involved kickbacks. In the kickback decision, a regional sales director informed Sneed that one of his sales representatives was paying kickbacks. Sneed had to decide whether to stop the kickbacks or permit them to continue. In the second opportunity, the part decision, subjects had to respond to a memo from William Wyley, vice-president of production, in which he stated that he had decided to change the material used in a particular product component to save on production costs. He advised that customers should not be informed despite potential problems. Sneed had to decide what to do, if anything, in response.

For each decision, subjects were provided a response form that listed a number of options. They were instructed to choose one of the options or to write in a response. The available options were coded a priori as ethical or unethical (an equivalent number of each) on the basis of preestablished criteria. In the kickback situation, a decision to allow kickbacks to continue was coded as unethical. A decision to stop the kickbacks was coded as ethical. In the part situation, a decision to not inform customers was coded as unethical. A decision to inform customers, report Wyley, or both was considered ethical. Four members of Linda Trevino's doctoral committee served as a panel of judges to verify that the a priori coding met the preestablished criteria.

Of the 188 possible responses (two decisions each for 94 subjects), 29 write-in responses were received. These were evaluated as ethical or unethical by Linda Trevino and five independent raters on the basis of the preestablished criteria. (A third option, can't decide, was also possible, but raters were asked to use it sparingly) For about one third (10) of the write-in responses, the six raters' categorizations agreed 100%. For the remaining responses, a majority among those raters who could decide on a rating permitted the categorization of all but 3 responses. These 3 decisions were coded as missing data because the criteria could not be applied. For each write-in decision, percentage of agreement among the six raters was computed. Across all write-in decisions, the average agreement among raters was 80%.

Cohen's (1960) coefficient k for assessing the proportion of agreement between two judges after chance agreement is removed was used to assess the reliability of the six judges who made the category decisions. Coefficient k was computed for all 15 possible pairs of raters. The mean k was .33 with a high of .55 and a low of .07.

For descriptive purposes, Table 1 presents crosstabulations of the number of ethical and unethical decisions subjects made across the kickback and part situations for each of the reinforcement conditions. Some subjects engaged in ethical or unethical behavior consistently across the two trials. For example, 58% of the subjects in the control group behaved consistently across both trials, 56% of the subjects in the reward group behaved consistently, and 69% of the subjects in the punishment group behaved consistently. As expected, more consistency was observed for subjects behaving ethically (55% of all experimental subjects) than for subjects behaving unethically (7% of all experimental subjects).

Making an ethical or unethical decision represents the behavioral choice component of ethical decision making. A normative component also exists that involves thoughts and feelings about whether one did the right thing. This normative-affective dimension (Etzioni, 1988) was tapped by asking subjects to express, on a 5-point scale ranging from *not at all committed* (1) to *strongly committed* (5), the degree to which they felt committed to the correctness of each decision or action.

Table 1
A Crosstabulation of Unethical and Ethical Decisions for Kickback and Part Situations, Broken Down by Group

Kickback decision	Part decision		Total
	Unethical	Ethical	
Control group			
Unethical	4	4	8
Ethical	8	13	21
Total	12	17	29
Vicarious reward group			
Unethical	1	4	5
Ethical	9	16	25
Total	10	20	30
Vicarious punishment group			
Unethical	1	0	1
Ethical	10	21	31
Total	11	21	32

Subjects' decisions were scored as ethical if they selected an ethical option for both opportunities. For these subjects, the dependent variable, ethical decision-making behavior, was created by multiplying the ethical choice code (1) by an equally weighted average of the commitment scores on the two decisions. Thus, a subject who made an ethical choice in both incidents and was highly committed to both decisions would receive a maximum score of 5.

Subjects' decisions were scored as unethical if they chose an unethical option in at least one of the two choice opportunities. For these subjects, the dependent variable was computed by multiplying the code for an unethical choice (-1) by the commitment score associated with the unethical decision. For subjects who selected an unethical option in both in-basket instances, the dependent variable was computed by multiplying the code for an unethical choice (-1) by an equally weighted average of the commitment scores for each decision.

Hence, a subject could score a maximum of 5 on the ethical decision-making dependent variable by choosing an ethical option (1) for both incidents and expressing strong commitment (5) to both decisions. A subject could score a minimum of -5 by choosing an unethical option (-1) for one or both incidents and expressing a strong commitment (5) to either the one unethical choice or both unethical choices. Subjects who chose the ethical option for both incidents and expressed some degree of commitment to the ethical decisions would receive scores varying between 1 and 4. Subjects who made at least one unethical choice (-1) and expressed some degree of commitment to the unethical decision(s) would receive scores varying between -4 and -1.

Design and Analytical Strategy

To test the causal linkages hypothesized in Figure 1, we performed a path analysis of the experimental data. To estimate the path coefficients associated with the hypothesized causal model, we conducted a series of bivariate and multiple regression analyses. Procedures outlined in Cohen and Cohen (1983, pp. 353-378) were followed to provide estimates of the path coefficients, the decomposition of total variable effects into direct and indirect effects on the dependent variable, and the degree of spuriousness observed in zero-order correlations among the independent and dependent variables.

A power analysis (Cohen, 1988) of the study design revealed power

Table 2
Means, Standard Deviations, and Intercorrelations for All Variables

Variable	<i>M</i>	<i>SD</i>	Intercorrelations					
			1	2	3	4	5	
1. Vicarious reward ^a	0.34	0.48	—					
2. Vicarious punishment ^b	0.33	0.48	.50	—				
3. Outcome expectancy	36.19	4.40	.24	-.01	—			
4. Locus of control ^c	8.48	3.92	-.07	-.05	-.29	—		
5. Cognitive moral development	22.34	7.19	.10	-.08	.12	-.14	—	
6. Ethical decision-making behavior	0.80	4.14	.01	.16	.30	-.42	.24	—

Note. Means were substituted for missing data. Correlations equal to or greater than .23 and .18 are significant at the .01 and .05 alpha levels, respectively.

^a Subjects in the reward condition were coded as 1, and all others were coded as 0. ^b Subjects in the punishment condition were coded as 1, and all others were coded as 0. ^c Higher values indicate a more external locus of control; lower values indicate a more internal locus of control.

levels of .08, .73, and .99 for correlations of .10, .30, and .50, respectively, with a one-tailed alpha of .01. For an alpha of .05, the power levels were .24, .90, and .99 for correlations of .10, .30, and .50, respectively. Hence, the study design was adequate to detect effect sizes of moderate or strong magnitude but was somewhat inadequate for weak effect sizes. To preserve the sample size, we dummy coded missing data for all the independent variables and included them in a regression analysis including the original variables. The dummy variable set representing missing data was nonsignificant. Therefore, in the subsequent regression analyses, mean plugged variables were used (Cohen & Cohen, 1983, p. 297).

Results

Table 2 reports the means, standard deviations, and correlations for the study variables. In general, the zero-order correlations support the predicted relationships. LC and outcome expectancy exhibited the strongest correlations with ethical decision making. Subjects with internal LC exhibited more ethical behavior than subjects with external LC. For outcome expectancy, subjects who perceived that the organizational reward system supported ethical behavior were more likely to behave ethically. CMD also was significantly related to ethical decision making. Higher stage individuals were more ethical. No significant correlations were observed between the vicarious reward and punishment dummy variables and ethical decision-making behavior.

The bivariate correlations do not explicitly control for multiple causation or for potential mediating effects. Therefore, path coefficients were estimated consistent with the causal model posited in Figure 1. These results are reported in Figure 2. Path coefficients are reported above the arrow along with unstandardized regression coefficients (in parentheses). Cohen and Cohen (1983) recommended reporting both standardized and unstandardized regression coefficients. Although path coefficients (betas) are helpful for understanding the relative influences of the independent variables within a study, they are more subject to sampling variability. The unstandardized regression coefficient is a more stable estimator of the true effect size and is useful for between-study comparisons.

In general, the hypothesized path model did a reasonable job of accounting for the observed correlations among the variables, as reflected by the number of insignificant paths (three of eight) and the degree of spuriousness observed between the exogenous variables and the endogenous variable of ethical decision-making behavior. No support was found for the direct effect of vicarious reward or punishment on ethical decision-making behavior, nor did vicarious punishment exhibit an indirect effect by way of outcome expectancy beliefs. Vicarious reward, however, did exhibit a significant path to outcome expectancy, which in turn was significantly correlated with ethical decision-making behavior. Seventy-two percent of the estimated total effect of vicarious reward on ethical decision-making behavior was indirect. Subjects in the reward condition, relative to the control group, exhibited higher outcome expectancy beliefs, which in turn led to more ethical decisions.

The causal effects of the individual difference measures of LC and CMD were supported. LC exhibited both direct and indirect effects on ethical decision-making behavior. Eighty-seven percent of the total effect of LC was by way of its direct effect on ethical decision-making behavior. CMD exhibited a direct effect on ethical decision making that was of similar magnitude to that observed for outcome expectancy beliefs. An important caveat, however, is that whereas causal inferences are being drawn from the estimated path model, the observed linkages between ethical decision-making behavior and LC, CMD, and outcome expectancy beliefs, respectively, are correlational and not necessarily causal.

In summary, a comparison of the path coefficients indicates that LC exhibited the single strongest direct effect on ethical decision making, nearly double that of all the other effects. Of the remaining direct effects, outcome expectancy and CMD exhibited similar and significant magnitudes of effect on ethical decision making. Vicarious reward exhibited a weaker and indirect effect on ethical behavior through outcome expectancy beliefs.

Content analysis was conducted of subjects' responses to open-ended questions about the appropriateness of the reinforcement contingencies. In the vicarious punishment condi-

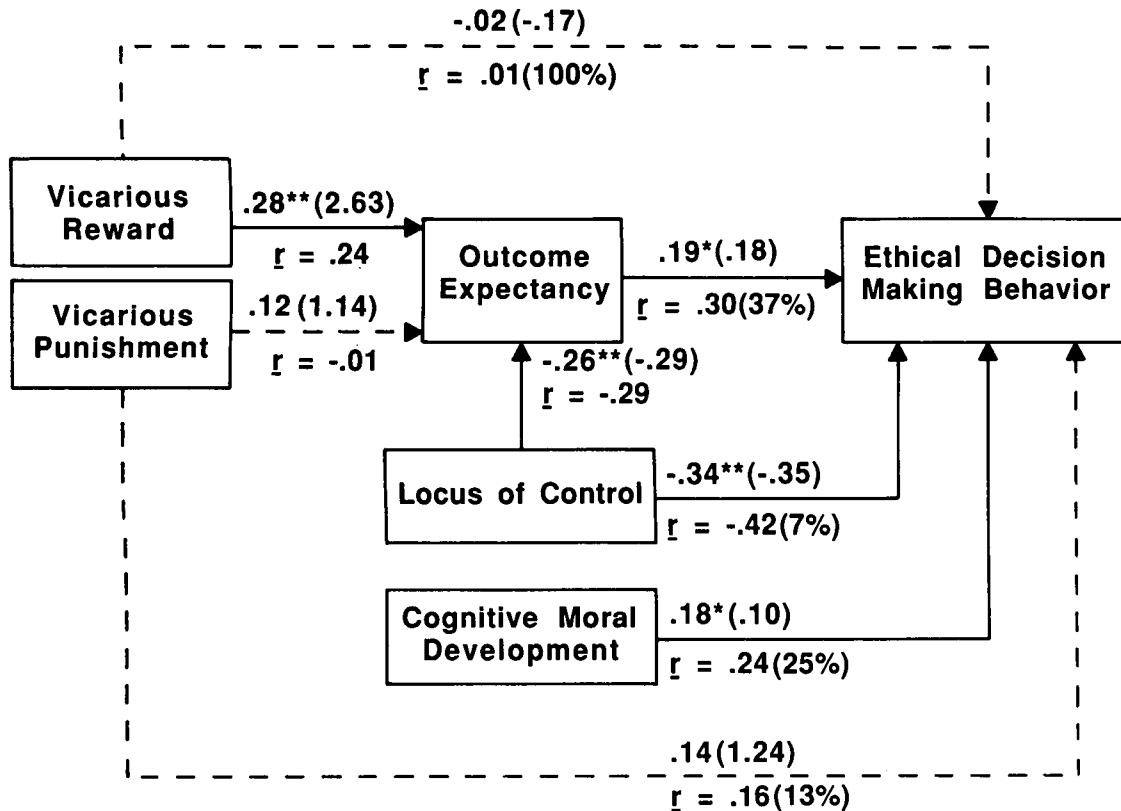


Figure 2. Path analysis results for proposed causal model. (Path coefficients are reported with the appropriate unstandardized regression coefficient in parentheses. The zero-order correlation is r , and the estimated percentage of spuriousness between the exogenous variable and the endogenous variable [ethical decision-making behavior] is reported in the accompanying parentheses. $*p < .05$. $**p < .01$, one-tailed tests.)

tion, the responses suggested that subjects expected unethical behavior to be punished and punished harshly. Almost half (47%) of the subjects provided specific reasons why they felt punishment was appropriate in the two in-basket unethical behavior incidents: For example, the manager's actions were against policy, potentially costly and dangerous; the manager risked legal liability, customer dissatisfaction, and lost future business; he should pay the consequences of his actions; management must set a precedent, send a message to other employees, and preserve the company image. The open-ended questions did not specifically ask about severity, yet 75% of the subjects mentioned it. Although 19% (all but one subject referring to the part decision) expressed concern that the punishment may have been too harsh for a first offense and that the manager's intentions to cut costs and make a profit should be taken into account, 56% of the subjects expressed concern that the punishment may not have been harsh enough. Two thirds of these responses referred explicitly to the sexual harassment incident and claimed that an example must be set so that others would not repeat the behavior. Terminating the manager, rather than suspension, was deemed the appropriate response.

In the vicarious reward condition, only 15% of subjects expressed the belief that management should have rewarded the ethical behavior. Most felt that rewarding ethical behavior was somehow inappropriate and that the specific in-basket rewards

were too strong. Sixteen percent of the subjects felt that ethical behavior was expected, a job norm or duty that should not be rewarded. Two thirds of the subjects perceived one or both of the in-basket rewards to be too strong. Eleven percent recommended private praise or recognition in place of the public reward, and 22% worried that such a large reward could encourage false accusations or false reporting in the future. Finally, 25% felt that, in addition to any reward, the offender should be punished.

Discussion

A number of potential study limitations should be noted. First, social desirability bias, a problem with ethics-related studies, was minimized by embedding decisions within the larger in-basket. In response to a postexercise questionnaire item regarding the study's perceived purpose, only 6.5% of the subjects indicated that they perceived an ethics focus. Most subjects reported that the exercise was designed to provide general decision-making experience.

Second, the use of an MBA student sample and a laboratory setting raises questions about external validity. However, study subjects had, on average, 5 years of relevant work experience. Moreover, consistent findings from both laboratory and field settings support external validity (Locke, 1986).

This research provides partial support for the proposed multiple-influences causal model of ethical decision-making behavior. The findings suggest that individual differences are important for understanding ethical decision-making behavior. The hypothesized influences of individual differences on outcome expectancies and behaviors were supported. Subjects with internal LC and at the principled stage of CMD behaved more ethically. The ethical behavior of subjects with internal LC was due, in part, to the mediating influence of outcome expectancies. These results suggest that individual difference variables should continue to be incorporated in research on ethical decision-making behavior.

These findings also have potential implications for the attraction, selection, and training of personnel. First, organizations could attempt to attract individuals of high integrity by emphasizing the importance of integrity in recruitment materials. Second, organizations could assess LC, CMD, or both when selecting managers for positions requiring ethical decision making. These measures may be difficult to implement for selection purposes, however. Problems similar to those encountered in integrity testing can be expected (Sackett, 1985; Sackett, Burris, & Callahan, 1989; Sackett & Harris, 1984). Measures of LC and CMD may be particularly useful for targeting training resources. Organizations could attempt to increase managers' CMD through training. Although CMD level is considered a relatively stable individual characteristic, it can be increased through training (Goldman & Arbuthnot, 1979; Hersh, Miller, & Fielding, 1980; Penn & Collier, 1985).

This study is the first to hypothesize and test outcome expectancies as an intervening cognitive process that influences ethical decision-making behavior. The results suggest that outcome expectancies have a direct influence on ethical decision-making behavior. In addition, LC influenced ethical behavior partly through outcome expectancies, and vicarious reward influenced ethical behavior primarily through the mediating influence of outcome expectancies. Vicarious punishment, however, did not significantly influence outcome expectancies or behavior.

The differences in the findings for vicarious reward and punishment may be due to people's a priori beliefs. Recall that, in the vicarious punishment condition, subjects said that they expected unethical behavior to be punished, but more harshly than was done in the in-basket scenarios. Here, outcome expectancies were not influenced. In the vicarious reward condition, however, where subjects did not expect ethical behavior to be rewarded and they perceived the reward to be too strong, outcome expectancies were influenced. Bandura (1986) argued that, for modeling to have an impact on observer behavior, it must be noticed and remembered. In this study, subjects seemed to notice, remember, and be influenced only by the reinforcement that was unexpected or stronger than expected—rewarding ethical behavior. They were not influenced by reinforcement that was expected or weaker than expected—punishing unethical behavior. Thus, expectancy beliefs and behavior may be significantly influenced only under circumstances in which the reinforcement is unexpected or powerful (as in the vicarious reward condition). Given the influence of expectancy beliefs on ethical decision-making behavior, future research

should explore people's a priori expectancy beliefs and how they can be influenced.

Although neither the direct nor the indirect influence of punishment was supported in this study, we are not yet willing to abandon the notion that vicarious punishment can influence ethical decision-making behavior. First, the study design did not have sufficient power to detect weak treatment effects. Second, the qualitative data suggest that stronger effects may be achieved with harsher punishments. In addition, to be effective, the punishment of unethical behavior must compete with the rewards inherent in the unethical behavior (i.e., financial gain). The specific punishment used in this study may not have been severe enough to counteract these rewards. Punishment severity may also explain the failure of vicarious punishment to influence outcome expectancies. If individuals already believe that unethical behavior should be punished, relatively severe punishment may be needed to modify their outcome expectancies.

In sum, ethical decision-making behavior in organizations appears to be a complex phenomenon influenced by the interplay of individual differences, how individuals think about ethical decisions, and how organizations manage rewards and punishments. Many questions remain about the realities of managing the reward system to encourage ethical behavior. Substantial rewards for ethical behavior appeared to influence observers' outcome expectancies and behavior, but they also produced discomfort about the idea of rewarding people for doing the right thing. Future research may wish to explore how organizations can reward ethical behavior without arousing this apparent discomfort. Mild punishment did not seem to influence observers' behavior at all, and thus more severe discipline may need to be considered. The question of severity deserves further examination. What level of severity is required to influence observers' outcome expectancies and behavior and what side effects, if any, are produced by harsh punishments? Future research can build on these findings to further investigate the influences of individual differences, cognitions, reward systems, and their relative effects on ethical decision-making behavior in organizations.

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