

**The Effects of Cognitive Moral Development and Reinforcement Contingencies on
Ethical Decision Making**

by

Joan McMahon

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Roseanne J. Foti, Ph.D., Chair

Neil Hauenstein, Ph.D.

Robert J. Harvey, Ph.D.

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(ABSTRACT)

A number of theories attempt to explain the elements of the decision making process when one is faced with an ethical dilemma. Trevino's model (1986) posited a main effect of cognitive moral development (CMD) on ethical behavior, moderated by reinforcement contingencies. Past research has failed to examine the full spectrum of reinforcement contingencies: rewarding ethical behavior (RE), punishing unethical behavior (PU), rewarding unethical behavior (RU), and punishing ethical behavior (PE). It was hypothesized that RE and PU would encourage ethical behavior, while RU and PE would encourage unethical behavior. An additional hypothesis that has not been examined is that reinforcement contingencies would cause individuals who are at the conventional level of CMD to regress to earlier stages of moral reasoning. Support for these hypotheses was not found. Possible explanations for the results are discussed, including the nature of the task itself.

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TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGEMENTS.....	iii
INTRODUCTION	1
LITERATURE REVIEW	4
Business Ethics	4
Cognitive Moral Development	6
Measuring Cognitive Moral Development	10
Cognitive Moral Development and Moral Action.....	12
Reinforcement Contingencies.....	13
Summary and Hypotheses.....	21
METHOD	25
Participants.....	25
Procedure	26
Experimental Task	27
Independent Variables	30
Reinforcement Contingencies.....	30
Competitive Bid.....	30
Control Condition	30
RE Condition	31
PU Condition	31
RU Condition.....	31

PE Condition.....	32
Wiring.....	32
Control Condition.....	32
RE Condition.....	32
PU Condition.....	33
RU Condition.....	33
PE Condition.....	34
Measures.....	34
Cognitive Moral Development (CMD).....	34
Ethical Decision Making (EDM).....	37
Kickback Dilemma.....	37
Order Fulfillment Dilemma.....	37
Product Component Dilemma.....	38
Principled Reasoning.....	39
Manipulation Check.....	39
RESULTS.....	40
Descriptive Statistics.....	40
Manipulation Check.....	41
Hypotheses.....	41
Hypothesis 1.....	42
Hypothesis 2.....	43
Hypothesis 3.....	43
Exploratory.....	43

Hypothesis 4.....	45
Hypothesis 5.....	45
Hypothesis 6.....	45
DISCUSSION	46
Ethical Decision Making.....	47
Principled Reasoning	51
Implications and Future Research.....	56
REFERENCES	59
APPENDICES	67
A. Defining Issues Test (DIT)	67
B. Demographic Information Sheet	79
C. In-Basket Step One.....	82
D. In-Basket Step Two.....	109
E. Post-Exercise Questionnaire.....	114
F. In-Basket Scoring	116
TABLES	118
FIGURES	131
VITA.....	134

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Random Assignment of Subjects to Conditions after Trichotomizing for DIT P score	118
2	T-Test for Equality of Means for 80 versus 375 Participants	119
3	Descriptive Statistics and Correlations Among all Study Variables	120
4	Analysis of Manipulation Check	121
5	Hierarchical Regression Analysis of EDM on Gender, CMD, R.C., and Interactions	122
6	Regressions Analysis of Ethical Decision Making on Cognitive Moral Development, by Condition	123
7	Post Hoc Chi-Square Goodness-of-Fit Analysis for Ethical Decision Making	124
8	Post Hoc Chi-Square Goodness-of-Fit Analysis for Kickback Dilemma	125
9	Post Hoc Chi-Square Goodness-of-Fit Analysis for Order Fulfillment Dilemma	126
10	Post Hoc Chi-Square Goodness-of-Fit Analysis for Product Component Dilemma	127
11	Hierarchical Regression Analysis of In-Basket P score on Cognitive Moral Development, Reinforcement Contingencies, and Interactions	128
12	Regression Analysis of In-Basket P score on Cognitive Moral Development, by Condition	129
13	Frequencies of Stages Selected as “Most Important” consideration for In-Basket Ethical Dilemmas	130

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	Kohlberg's Stages of Cognitive Moral Development (1981a)	131
2	Trevino's Person-Situation Interactionist Model (1986)	132
3	Stages of Cognitive Moral Development for In-Basket Considerations	133

INTRODUCTION

“NEW YORK (March 1) – A ‘culture of gift-giving’ starting at the top of the Olympics led to the biggest scandal in the history of the games, an elite ethics panel said Monday” (Siddons, 1999, p. 1). Former Senate Majority Leader George Mitchell, who headed up the ethics commission which was formed to investigate the million-dollar bribery case related to Salt Lake City’s winning bid for the 2002 Winter Games, said that

The activity in which the Salt Lake committees engaged was part of a broader culture of improper bidding in which candidate cities provided things of value to IOC members in an effort to buy their votes. This culture was made possible by the closed nature of the IOC and by the absence of ethical and transparent financial controls in its operations (p. 2).

Mitchell further stated that, as a result of such improper behavior, “credibility of the Olympic movement has been gravely damaged” (p. 2).

Bribery...and the OLYMPICS? The Olympics - that paragon of sportsmanship? The Olympics - “an organization that has made a tough-cop reputation by busting teenagers for taking the wrong nasal spray before the 400-m backstroke” (Sullivan, 1999, p. 42)? Say it ain’t so!

But it IS so. In today’s global economy where the stakes are high and competition is keen, even the Olympics are not exempt from forces that can lead to unethical behavior. Bribery, as in the Olympics scandal, is just one form of unethical business practice. A Time magazine article on corporate espionage cited practices such as “swiping confidential data, sabotaging potential deals and spreading rumors”

(Eisenberg, 1999, p. 58) as means used in today's business world to drive down competitors' stock prices and cripple their lobbying efforts. As Eisenberg observed, "dirty tricks are all in a day's work" (p.58).

The costs associated with unethical practices are great. In the Salt Lake City example, the loss of credibility in the Olympic movement could put at risk millions of dollars in corporate sponsorships of the games (Sullivan, 1999). In fact, on April 19, 1999, The Associated Press reported that Johnson & Johnson had backed away from an estimated \$30 million sponsorship deal of the 2002 games in the wake of the bribery scandal (Wolfson, 1999). And as for corporate espionage, in 1997 alone "at least \$25 billion in intellectual property was stolen from U.S. corporations, by a conservative estimate" (Eisenberg, 1999, p.58). In view of these incredible costs, "the need to better understand the psychology of unethical behavior is clear" (Baehr, Jones, & Nerad, 1993, p. 292).

At the heart of a continuing debate among researchers who have been studying business ethics is the question "What are the determinants of unethical decision making" (Hegarty & Sims, 1978)? Is ethical decision making a direct result of personal characteristics of the individual decision-maker, an "undersocialized perspective of individuals acting in isolation" (Brass, Butterfield, & Skaggs, 1998, p. 14)? Or, rather, is ethical decision making more dependent upon organizational and societal variables, "the oversocialized view of individuals obedient to norms and culture" (Brass et al., 1998, p. 14)? The resolution of this "bad apples" versus "bad barrel" debate (Trevino & Youngblood, 1990) is important to organizations that wish to take action to curb unethical behavior. The bad apples argument implies that organizations should attempt

to attract ethical individuals, those with “moral character.” On the other hand, the bad barrel argument would imply that organizations should look within and attempt organizational modifications such as restructured reward systems, ethical climate, and promotion of an organizational code of ethics (Brass et al., 1998, p.15).

In the past twenty-five years a number of models and theories have been posited to explain the determinants of ethical decision making. Proposed characteristics of the individual have included: stage of cognitive moral development (Trevino, 1986; Trevino & Youngblood, 1990), economic, political, and religious value orientation (Hegarty & Sims, 1978, 1979), ego strength (Rest, 1979; Trevino, 1986), gender (Hegarty & Sims, 1978), locus of control (Hegarty & Sims, 1978, 1979; Jones & Kavanagh, 1996; Trevino, 1986; Trevino & Youngblood, 1990), Machiavellianism (Hegarty & Sims, 1978, 1979; Jones & Kavanagh, 1996), and nationality (Hegarty & Sims, 1978, 1979).

Proposed organizational, cultural or situational variables have included: competition (Hegarty & Sims, 1978), managerial influences (Jones & Kavanagh, 1996), organizational philosophy and policy (Hegarty & Sims, 1979), peer influences (Jones & Kavanagh, 1996), quality of the work experience (Jones & Kavanagh, 1996), referent others (Trevino, 1986), reinforcement contingencies (Trevino, 1986), relationships among actors (Brass, Butterfield, & Skaggs, 1998), responsibility for consequences (Trevino, 1986), and reward systems (Hegarty & Sims, 1978; Jansen & Glinow, 1985). In addition to individual and situational characteristics, Jones (1991) posited that ethical decision making might be issue-contingent, based on the moral intensity of the issue. “Magnitude of consequences, social consensus, probability of effect, temporal

immediacy, proximity, and concentration of effect.... are integral parts of an issue-contingent model of moral decision making and behavior” (p.372).

The purpose of this study is to examine the influence of one of the aforementioned personal characteristics, cognitive moral development, and one of the situational variables, reinforcement contingencies, on ethical decision making in the business environment.

BUSINESS ETHICS

“Ethics in business is one of the most important problems facing American companies today” (Baehr, Jones, & Nerad, 1993).

In order to study business ethics one needs to first answer the question “What exactly IS business ethics?” Brass, Butterfield and Skaggs (1998), in their article on unethical behavior in organizations, stated that an “ethical situation [is] one where the consequences of an individual’s decision affects the interests, welfare, or expectations of others” (p. 15). They proceeded to define unethical behavior as “behavior that has a harmful effect upon others and is ‘either illegal or morally unacceptable to the larger community’” (p.15). Collins (1989) asserted that ethics constrain one’s behavior in reference to harm, and serve “as a catalyst for one’s behavior” in reference to benefits (p. 4). Based on a review of 158 textbooks, 50 articles, and 185 responses to a questionnaire, Lewis (1985) synthesized the following: “‘business ethics’ is rules, standards, codes, or principles which provide guidelines for morally right behavior and truthfulness in specific situations” (p. 381).

In their survey of 7500 managers from a range of private and public organizations nationwide, Kouzes and Posner (1990) found that 87% of those surveyed selected

“honesty” as a characteristic of superior leaders. In their study, “integrity (is truthful, is trustworthy, has character, has convictions)” (p. 30) was selected more often than any other leadership characteristic. They claimed that this finding was not surprising. “If we are to willingly follow someone, whether it be into battle or into the boardroom, we first must assure ourselves that the person merits our trust... that he or she is being truthful, ethical and principled” (p.30).

As illustrated earlier, unethical behavior can be costly to businesses in terms of loss of credibility and loss of financial remuneration. In addition, the Kouzes and Posner (1990) study indicated that unethical behavior by managers could have a negative impact on their subordinates, who expect integrity in their leaders. Employees judge the integrity of their leaders by the behavior in which the leader engages. “Agreements not followed through, cover-ups, inconsistency between word and deed are indicators of a lack of honesty” (p. 30). Indeed, they found that “confusion among your followers over corporate values creates stress... leads to conflict, indecision and rivalry” (p. 32). Kohlberg (1981a) concurred by claiming that “real moral crises arise when... the usual moral expectations break down” (p. 188). Additionally, Vitell and Davis (1990) found that “all dimensions of job satisfaction were negatively correlated with perceptions of unethical behavior within one’s company” (p. 490). They suggested that “managers might be able to improve job satisfaction by reducing the opportunities for unethical behavior within their companies and by attempting to encourage ethical behavior on an industry level” (p. 493).

One way organizations attempt to prevent unethical behavior is to create, issue, and enforce a Code of Ethics. Baehr, Jones, and Nerad (1993) found that “a typical code

of ethics covers: (1) conflicts of interest; (2) relationships with customers, competitors, government authorities and employees; (3) high regard for company assets; and (4) use of good judgment” (p. 292). Still, Lewis (1985) found that “a large number of managers and workers apparently cannot state with certainty what is right and wrong in all situations” (p. 378). He also found that “persons who practice ‘small’ unethical practices have a tendency later to attempt more serious unethical practices” (p. 378), when no repercussions occur following the small incidents. Stratton, Flynn, and Johnson (1981) stated that “surveys of businessmen... indicate that they face pressures to compromise their personal standards and are apparently willing to do this” (p. 35). Collins (1989) claimed that “in many instances companies set aside moral imperatives in favor of economic imperatives” (p. 9). In a comment illustrative of the bad apples argument, Lewis (1985) came to the conclusion that “business will never be any more ethical than the people who are in business” (p. 377).

COGNITIVE MORAL DEVELOPMENT

Lawrence Kohlberg (1927-1987) was arguably the most preeminent psychologist of recent time in the field of moral development. Expanding upon Piaget’s three-stage (sensorimotor/preoperational, concrete operational, and formal operations) framework of cognitive development, Kohlberg’s 1958 dissertation at the University of Chicago began his lifelong work into the study of cognitive moral development (CMD) (Kohlberg, 1981b). His stage model of CMD found support in his 20-year longitudinal study (Colby, Kohlberg, Gibbs, & Lieberman, 1983).

Kohlberg postulated that moral judgment develops through a sequence of three levels, which are comprised of two stages at each level, resulting in six stages (see

Figure 1). The six stages are defined according to the following criteria: (a) Stages are distinctly and qualitatively different modes of thinking; (b) development through the stages follows an invariant sequence; (c) each stage represents a structured whole, affording consistent logic which is applied to a variety of situations; and (d) stages are hierarchical integrations of insights that were achieved in lower stages, and represent a “reorganization of the individual’s thought patterns rather than the learning of new content” (Colby et al., 1983, p. 1). Kohlberg’s stage theory implies that “the direction of moral change will always be upward.... there will be no stage skipping.... [and] the individual’s thinking will be at a single dominant stage across varying content, though use of the adjacent stage may also be expected” (Colby et al., 1983, p.2). Additionally, Kohlberg (1981a) posited that “the nature of our sequence is not significantly affected by widely varying social, cultural, or religious conditions. The only thing that is affected is the rate at which individuals progress through this sequence” (p. 25). Kohlberg (1981a) labeled the three levels of CMD “preconventional”, “conventional” and “postconventional” (p. 16).

At the preconventional level the individual is responsive to the culture’s rules and labels of right and wrong, but interprets these labels in terms of physical or hedonistic consequences to the individual, or in terms of the physical power of those who enforce the rules. The preconventional level is divided into two stages:

Stage 1: Punishment and Obedience Orientation

Stage 2: Instrumental Relativist Orientation

In Stage 1, that which is determined to be good or bad is based on physical consequences, and action is motivated by avoidance of punishment. In Stage 2, that which is

determined to be good or bad is based on its instrumentality in satisfying the individual's needs, and action is motivated by rewards or benefits to the individual. Stage 2 individuals engage in "you scratch my back and I'll scratch yours" behavior in order to attain these rewards or benefits. Because of their desire to avoid punishment and gain rewards, it will be hypothesized that individuals with low P scores (the index from the Defining Issues Test which will be used to measure CMD) will make ethical decisions in the condition in which ethical behavior has been rewarded (to be referred to as RE, for "reward ethical") or in the condition in which unethical behavior has been punished (to be referred to as PU, for "punish unethical"). Further, it will be hypothesized that individuals with low P scores will make unethical decisions in the condition in which unethical behavior has been rewarded (to be referred to as RU, for "reward unethical") or in the condition in which ethical behavior has been punished (to be referred to as PE, for "punish ethical"). "One can legitimately expect that preconventional individuals will not conform to socially accepted moral rules when these contrast with their self-interests, if it is safe to do so" (Blasi, 1980, p. 35).

At the conventional level the individual's focus is on maintaining the expectations of family, group, or culture, regardless of the consequences. This attitude is one of conformity and loyalty, and is divided into two stages:

Stage 3: Interpersonal Concordance or "Good Boy-Nice Girl" Orientation

Stage 4: Society Maintaining or "Law and Order" Orientation

In Stage 3, moral behavior is that which is approved by others, and which pleases or helps others. In Stage 4, moral behavior consists of doing one's duty, respecting authority, and maintaining the given social order. Because of their desire to please others

and to follow existing rules, it will be hypothesized that individuals with mid-range P scores will make ethical decisions in the condition in which authority appears to value and approve of ethical behavior (the RE condition) or in the condition in which authority appears to not value and disapprove of unethical behavior (the PU condition). Following the same reasoning, it will be hypothesized that individuals with mid-range P scores will make unethical decisions in both the RU and PE conditions.

At the postconventional level, which is also referred to as the “autonomous” or “principled” level, the individual is engaged in an effort to define moral values that are valid apart from the authority of groups. Again, this level has two stages:

Stage 5: Social Contract Orientation

Stage 6: Universal Ethical Principle Orientation

In Stage 5, moral action is defined by laws, which have been created to protect individual rights, and which have been critically examined and agreed upon by society. Whereas Stage 4 individuals believe in maintaining the current social order, Stage 5 individuals consider the possibility of changing the law for reasons of social utility. In Stage 6, moral action is defined by one’s conscience in accordance with the individual’s self-chosen ethical principles of justice, reciprocity, equality of human rights, and respect for human dignity. The Stage 6 individual aims “to seek resolution of moral problems in such a way that promoting good for some does not fail to respect the rights of others, and respecting the rights of individuals does not fail to seek promotion of the best for all” (Kohlberg, Boyd, & Levine, 1990). Because their morality is internalized, and therefore less susceptible to external influences, it will be hypothesized that individuals with high P scores will make ethical decisions in all conditions (control, RE, PU, RU, and PE). As

Blasi (1980) posited, “postconventional persons will resist the pressure to modify their individually acquired principles in the direction of established norms or will refuse to change their morally determined course of action for the sake of public expectations, deference to authorities, and social acceptance” (p. 35). Trevino (1986) concurs, by explaining that “principled individuals may be more likely to resist external influence, to try to change the situation, or to select themselves out of situations where they were expected to behave unethically” (p. 610).

MEASURING COGNITIVE MORAL DEVELOPMENT

Two dominant moral reasoning instruments are found in the current literature: the Moral Judgment Interview (MJI) and the Defining Issues Test (DIT) (Rest, 1979).

The MJI was developed in order to operationalize Kohlberg’s theory of CMD. Participants are presented with a series of situations involving moral conflict and are then asked open-ended, probing questions which are designed to elicit the participant’s construction of moral reasoning, assumptions about right and wrong, and the way these assumptions are used to make and justify moral decisions. However, coding the participant’s response into a stage score is a significant limitation in using the MJI, since it requires a 17-step process, completed by highly trained scorers. “Kohlberg’s method produces material that is not strictly comparable from participant to participant; the assessments are vulnerable to interviewer and scorer biases; and scoring the material involves complex interpretations and rather great inferential leaps from the data” (Rest, Cooper, Coder, Masanz & Anderson, 1974, p. 492). An additional problem is that the MJI’s identification of the participant’s stage of moral development is presented as

discrete, ranked data, which, being discontinuous, does not lend itself to many statistical procedures, such as analysis of variance or regression (Elm & Weber, 1994).

In 1979, James Rest, a student of Kohlberg, developed the DIT based on his adaptation of Kohlberg's model of CMD. The DIT is a non-interview measure, which contains six moral dilemmas, three of them Kohlbergian. Participants rate and rank the importance of a series of statements, which follow each dilemma. "Measurement of an individual's moral reasoning level is accomplished through the calculation of a weighted index of the percentage of stage five and six reasoning used to resolve the dilemmas. The resulting score is called a P score" (Elm & Weber, 1994, p. 348). The P score, which can range from 0 to 95 (Rest, Cooper, Coder, Masanz, & Anderson, 1974), "measures the individual's tendency toward using primarily postconventional reasoning" (Elm & Weber, 1994, p. 350). Unlike the MJI, the DIT data provides an interval level, continuous variable, which allows it to be used in analysis of variance and regression. Because the DIT does not generate a stage score as the MJI does, no direct comparison is possible (Elm & Weber, 1994). Rest et.al., 1974, reported that "a substantial correlation of the Defining Issues Test was found with Kohlberg's moral judgment scale" (p.500). However, they admitted that "the magnitude of the correlations ($r = .68$) does not allow us to regard them as equivalent tests" (Rest et.al., 1974, p. 500).

A major difference between the MJI and the DIT is that the MJI is a production task, whereas the DIT is a recognition task. As such, the DIT, which does not require extensive verbal capabilities, is likely to credit participants with more advanced reasoning than the MJI (Elm & Weber, 1994). Rest would argue that the more advanced reasoning credited by the DIT is not due to error, but is, perhaps, a more accurate indication of the

individual's actual state of CMD than that derived by the MJI, due to the MJI's reliance upon verbal expression. "Unless a subject can explain and justify an idea, it is assumed that the subject does not have the idea. This assumes that all thought operations, which are credited to a subject, can be verbally articulated. Yet we know that many cognitive operations work 'behind the scenes' and cannot be verbalized or explained" (Rest, 1986, p. 458).

In this study, the hypotheses that will be tested have been guided by Kohlberg's stage theory, and CMD will be evaluated by the DIT, with a resulting P score for each participant.

COGNITIVE MORAL DEVELOPMENT AND MORAL ACTION

While Kohlberg's theory explains the development of moral judgment, it does not claim that moral judgment necessarily translates into moral action. "What I am ready to predict is not that people in a moral situation will do what they said they should do outside that situation but that maturity of moral thought *should* [italics added] predict to maturity of moral action" (Kohlberg, 1981a, p. 185). Rest (1986), claimed that "a person may have very sophisticated ways of making moral judgments, yet may prize other goals more, may fail to follow through, or may not behave morally" (p. 455). Still, Blasi's 1980 review of the literature regarding the bridging of moral cognition and moral action led him to conclude that "the body of research reviewed here seems to offer considerable support for the hypothesis that moral reasoning and moral action are statistically related" (p. 37).

What, then, moderates the main effect of moral cognition on moral action?

According to Levine (1979) "it can be argued that some social experience may encourage

the use of a stage of reasoning other than the most advanced stage a person is capable of using” (p. 150). Hayes (1991) posited that “the moral atmosphere of the group acts as a mediator between individual moral judgment and moral behavior” (p. 29) while Fraedrich, Thorne, and Ferrell (1994) claimed that “in a specific situation, the work group, opportunity and other factors may influence the outcome of an ethical decision” (p. 835). In this study, the particular situational factor that will be examined as a potential moderator of the moral cognition to moral action effect will be “reinforcement contingencies” (Trevino, 1986, p.613).

REINFORCEMENT CONTINGENCIES

In 1986 Trevino contended that “cognitions of right and wrong are not enough to explain or predict ethical decision making behavior. Additional individual and situational variables interact with the cognitive component to determine how an individual is likely to behave in response to an ethical dilemma” (p. 602). This belief led her to develop her “Person-Situation Interactionist Model” (see Figure 2). In this model, reinforcement (of behavior) within the immediate job context was postulated to be a situational moderator of the main effect of moral cognition on moral action. Trevino claimed that “an organization can influence the ethical/unethical behavior of its members through specific rewards and punishments for ethical/unethical behavior” (p. 613).

Trevino’s 1987 dissertation tested the effects of reinforcement contingencies on ethical decision making. In this study, which was positioned as an experiment regarding decision making and prioritizing skills, participants were asked to play the role of the National Sales Manager at an electronics firm. They were presented with an in-basket

exercise, which required them to prioritize the items in the in-basket and to make decisions on those items that called for action.

The manipulated independent variable, reinforcement contingencies, was operationalized as memos embedded within the in-basket regarding two situations of an ethical nature. For each of these two situations, a memo discussed the behavior of an employee of the company. In the control condition, the memos did not indicate what position the company took on ethical/unethical behavior. In the reward ethical (RE) condition, ethical behavior was rewarded. In the punish unethical (PU) condition, unethical behavior was punished.

Assuming that when unethical behavior decreases ethical behavior increases, it can be argued that both the RE and PU conditions were intended to encourage ethical behavior. Situated in the in-basket after these reinforcement contingencies were three items of an ethical nature that required action. Decisions made on these items acted as the dependent variables.

Based on her model, Trevino hypothesized that observation of the reinforcement of ethical and unethical behavior (in the form of rewarding ethical and punishing unethical behavior) would influence participants' ethical decision making. While a manipulation check showed that participants were cognizant of the reinforcement contingencies, Trevino's study did not find support for the hypothesis that "observers of a model who is rewarded for ethical behavior will make fewer unethical decisions than a control group" (p. 24). Only partial support was found for the hypothesis that "observers of a model who is punished for unethical behavior will make fewer unethical decisions than a control group" (p. 24). In other words, she found that rewarding ethical behavior

does not encourage ethical behavior, while punishing unethical behavior may encourage ethical behavior.

In addition to testing reinforcement contingencies as a moderator variable, Trevino also tested for the main effect of CMD on ethical decision making. No support was found for the hypothesis that “principled (level three) individuals will make fewer unethical decisions than nonprincipled (levels one and two) individuals” (p. 34). It should be noted that Trevino’s study used a total of 94 participants for three conditions. Perhaps this sample size did not give her enough power to detect an effect.

The current study operates on the premise that unethical behavior, by its very nature, has the potential to provide an intrinsic reward to the person who behaves unethically. For example, a bank robber’s reward is the “loot” obtained from robbing a bank. A cheater’s reward is the “A” that is received on a test.

For individuals at low levels of CMD, if there is no fear of getting caught, and therefore punished, unethical behavior is rewarding. For individuals at middle levels of CMD, if society says it’s acceptable, unethical behavior is rewarding. And while unethical behavior may be personally rewarding for individuals at high levels of CMD, their belief in justice, equality, and the greatest good for all rather than the greatest good for the individual, outweighs the rewards of unethical behavior.

This premise, that unethical behavior has the potential to provide an intrinsic reward to the person who behaves unethically, is the foundation of the hypotheses being explored in this study. Because unethical behavior is rewarding to them, rewards and punishments provided by society, or the organization, are necessary to ensure that

individuals at low and middle levels of CMD behave ethically. On the other hand, the behavior of individuals at high levels of CMD is internally controlled by their beliefs.

Expanding upon Trevino's terminology, since all unethical behavior is rewarding, it can be labeled "RU". In addition, when unethical behavior is rewarded by an entity other than the individual, it can also be labeled "RU". However, when unethical (rewarding) behavior is punished by an entity other than the individual, that situation is labeled "PU". When ethical behavior is rewarded by an entity other than the individual, that situation is labeled "RE". And when ethical behavior is punished by an entity other than the individual, that situation is labeled "PE".

While Trevino's 1987 dissertation studied influences on ethical behavior, the 1978 empirical study by Hegarty and Sims studied influences on unethical behavior. This study used "a simulated task involving marketing and decision making and the possibility of kickback payments to purchasing agents" (1978, p. 451) in order to investigate several determinants of unethical decision behavior.

Participants, who were acting as the Regional Sales Manager of a large wholesaling firm, were asked to decide how many salespeople to place in the field each month, with a goal of making the most profit. Profit was computed after each period and reported to the participants.

At the beginning of the 11th period, participants were told that some of their salespeople had been providing kickbacks to some of the purchasing agents in their region. Three different kickback conditions were tested. In Level 1 it was suggested that it was unknown whether stopping the kickbacks would result in lost sales. Since the participant, who is not the individual performing the unethical behavior of providing the

kickbacks, and in addition, does not know if providing kickbacks is rewarding, this situation cannot be labeled using Trevino's terminology. In Level 2 it was suggested that stopping kickbacks would result in an 80% probability of losing 20% of their business. In Level 2, then, it is clear that unethical behavior (providing kickbacks) is rewarding (results in increased profitability). Using Trevino's terminology, this could be considered an RU (reward unethical) condition. In Level 3 it was suggested that stopping kickbacks would result in an 80% probability of losing 20% of their business, AND that there would be a possibility of legal liability if the kickbacks should become exposed. So, employing Trevino's terminology, Level 3 is a PU (punish unethical) condition.

This study found that "ethical decision behavior was lower under conditions of extrinsic reward [Level 2] but was at a higher level under threat of punishment [Level 3]" (p. 455). In other words, rewarding unethical behavior encourages unethical behavior, whereas punishing unethical behavior encourages ethical behavior.

In 1979 Hegarty and Sims conducted two additional experiments related to unethical decision behavior. The task in each of these experiments was the same as the task used in their 1978 study. In the first experiment participants, who were acting as the Regional Sales Manager of a large wholesaling firm, were asked to decide how many salespeople to place in the field each month, with a goal of making the most profit. Profit was computed after each period and reported to the participants.

At the beginning of the 11th period, participants were told that some of their salespeople had been providing kickbacks to some of the purchasing agents in their region. Unlike the 1978 study, in this experiment none of the participants were told what effect stopping the kickbacks would have on their business.

The significant independent variable in this experiment was labeled *presidential philosophy*, which was operationalized as a letter from the company President (introduced at the end of the 8th period) which said that the attached was a “damned good article”. There were two levels of this variable. At Level 1 the article supported ethical behavior while at Level 2 the article did not support ethical behavior (in a pilot test of graduate business students the passage was judged as “mildly unethical”). Stated in Trevino’s terminology, Level 1 was an RE condition, while Level 2 was an RU condition.

It was found that “when a discriminative stimulus supporting ethical behavior was present, ethical behavior was higher [than when a discriminative stimulus was present which did not support ethical behavior]” (p. 334). In other words, they found that rewarding ethical behavior encourages ethical behavior, and that rewarding unethical behavior encourages unethical behavior.

Experiment 2 (Hegarty & Sims, 1979) employed the same task as Experiment 1. At the beginning of the 11th period, participants were told that some of their salespeople had been providing kickbacks to some of the purchasing agents in their region.

In this experiment all participants were told that there was an 80% probability of losing 20% of their business if kickbacks were stopped. In Trevino’s terminology this could be called an RU condition, since participants were aware that kickbacks (unethical behavior) were generating sales (reward).

The significant independent variable in this experiment was an “ethic goal”. In Level 1, no ethical goals were set by the participants, nor were the participants provided with any organizational ethical goals. In Level 2, prior to participation in the study,

participants were asked to complete a form, which measured an individual ethical goal. In Level 3, at the end of the 12th period participants received a written statement from the organization, which said that unethical behavior, would be punished. This would change Level 3 from an RU to a PU condition.

The results showed that no difference in ethical behavior occurred between Level 1 and Level 2, so the levels were collapsed for further analysis. It was found that Level 3 individuals had higher ethical decision behavior than Level 1,2 individuals.

The findings in both Experiment 1 and Experiment 2 led Hegarty and Sims to conclude that “ethical behavior is influenced... by the stimulus environment present prior to the occurrence of the behavior” (p. 337). In essence, this provides support for Trevino’s 1986 model that Trevino’s 1987 dissertation did not provide.

Neither Trevino nor Hegarty and Sims studied a PE condition. Trevino’s 1987 dissertation studied RE and PU conditions. RE was not found to encourage ethical behavior, while partial support was found that PU encourages ethical behavior. In 1978 Hegarty and Sims studied RU and PU conditions. RU was found to encourage unethical behavior, while PU was found to encourage ethical behavior. In 1979 Hegarty and Sims studied RE (Experiment 1), RU (Experiment 1), and PU (Experiment 2) conditions. RE was found to encourage ethical behavior, RU was found to encourage unethical behavior, and PU was found to encourage ethical behavior. This experiment will examine the full spectrum of reinforcement contingencies by studying the following conditions: control (in which the participants do not know how the organization responds to ethical and unethical behavior), RE, PU, RU, and PE. In addition, it will go beyond the scope of the 1978 and 1979 Hegarty and Sims studies by including CMD as an independent variable.

While studying the RU and PE conditions might appear to be counterintuitive in a study of ethical decision making, RU and PE conditions do exist in today's corporate culture. Jansen and Von Glinow (1985) claimed that "organization reward systems may punish honesty and reward dishonesty" (p. 817) and "some employees report that they are rewarded for breaking the rules in order to get the job done" (p. 818). Jones and Kavanagh (1996) contended that "deviance at upper levels legitimates the imitation of these deviant acts at lower levels" (p. 513). Stratton, Flynn, and Johnson (1981) stated that

There is a large and growing body of research, which indicates that management personnel are often placed under pressure to subrogate their personal value systems for what they perceive to be the best interests of the organization.

Furthermore, this pressure appears to be widespread, and not, as is commonly assumed, confined to the large multinational firms. Research among students in business schools... indicates a fairly widespread willingness to compromise on the issue of ethics (p. 41).

And while Stratton et al. claimed that there is much research being conducted, Jones and Kavanagh lamented that "surprisingly little research in... organizational psychology have focused on understanding the factors that influence individuals to engage in unethical behavior" (p. 511).

SUMMARY AND HYPOTHESES

Many factors have been posited as possible determinants of ethical decision making (EDM). Trevino's "Person-Situation Interactionist Model" postulates that reinforcement contingencies are a situational moderator of the main effect of moral cognition on moral action.

Lawrence Kohlberg's theory of cognitive moral development (CMD) divides individuals into three levels of qualitatively different moral reasoning: pre-conventional, conventional, and post-conventional. Rest's Defining Issues Test (DIT), which is used in this study, provides a continuous variable measuring CMD by means of a P score, which indicates "the relative importance a subject gives to principled moral considerations in making a decision about moral dilemmas" (Rest, 1990, section 4, p. 2).

This study examined both the main effect of cognitive moral development and the moderating effect of reinforcement contingencies that Trevino proposed. In addition, this study hypothesized that moderation occurs because reinforcement contingencies, by making punishment and rewards salient, encourage pre-conventional thinking in both pre-conventional and conventional individuals when faced with an ethical dilemma.

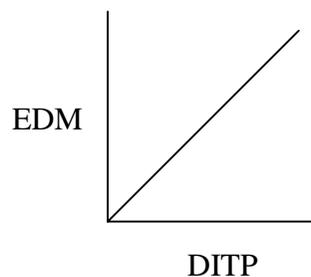
Individuals at the pre-conventional and conventional levels of cognitive moral development rely on sources outside of themselves when reasoning through ethical dilemmas. When reinforcement contingencies make punishments and rewards salient, pre-conventional individuals, who already use punishments and rewards as reasons for their actions, were hypothesized to continue to find those reasons important when faced with an ethical dilemma. Conventional individuals, who ordinarily use reasoning which represents their desire to be seen as "good boys and nice girls" and as supporters of "law

and order”, were hypothesized to regress to earlier stages of cognitive moral development, and find reasons concerning punishments and rewards important when faced with an ethical dilemma. Post-conventional individuals, who use internalized reasons such as “intuitive humanism” and “justice”, were hypothesized to continue to find those reasons important when faced with an ethical dilemma.

The hypotheses for this study, then, were as follows:

Hypothesis 1

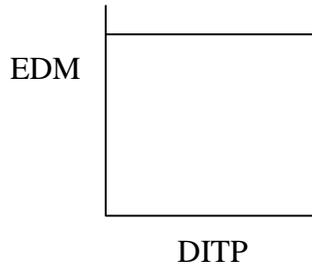
In the control condition, in which it is unknown to the participant how the organization responds to ethical or unethical behavior, there will be a positive linear relationship between EDM and CMD (as measured by the DIT P score, and hereafter referred to as DITP). Individuals with low DITP are hypothesized to make fewer ethical decisions than individuals with mid-range DITP, who are hypothesized to make fewer ethical decisions than individuals with high DITP.



Hypothesis 2

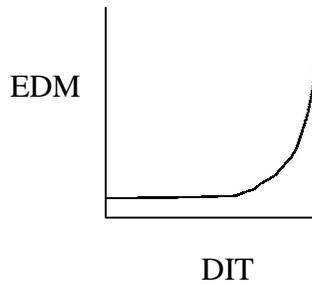
In both the reward ethical (RE) and punish unethical (PU) conditions, there will not be a linear relationship between EDM and DITP. The same number of ethical

decisions will be made by low, mid-range, and high DITP individuals.



Hypothesis 3

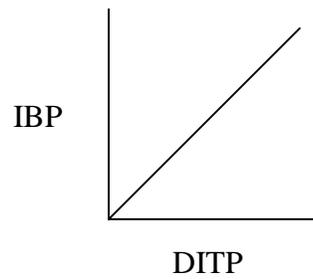
In both the reward unethical (RU) and punish ethical (PE) conditions, there will be a positive curvilinear relationship between EDM and DITP. Low and mid-range DITP individuals will make the same number of ethical decisions, which will be lower than the number of ethical decisions made by high DITP individuals.



Hypothesis 4

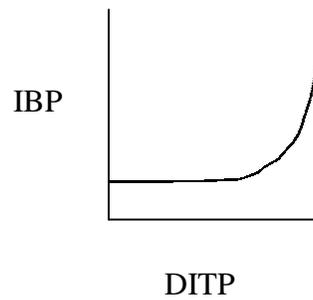
In the control condition, there will be a positive linear relationship between the principled reasoning score in the in-basket task (hereafter referred to as IBP) and DITP. Individuals with low DITP are hypothesized to have a lower IBP than individuals with mid-range DITP, who are hypothesized to have a lower IBP than individuals with high

DITP.



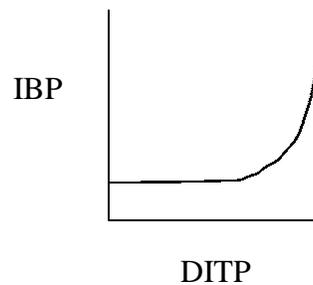
Hypothesis 5

In both the RE and PU conditions, there will be a positive curvilinear relationship between IBP and DITP. IBP will be the same for low and mid-range DITP individuals, and will be lower than the IBP for high DITP individuals.



Hypothesis 6

In both the RU and PE conditions, there will be a positive curvilinear relationship between IBP and DITP. The IBP will be the same for low and mid-range DITP individuals, and will be lower than high DITP individuals.



METHOD

Participants

Participants included 455 undergraduate students, 183 males and 272 females, enrolled in Psychology courses at Virginia Polytechnic Institute and State University. The participants ranged in age from 17 to 26 years of age, with 98.5% of the sample being between the ages of 17 to 22 years old. Extra credit towards Psychology classes was given for participation.

A total of 655 students participated in at least one stage of the study. 490 students participated in both the DIT and the in-basket; 157 took the DIT only; and 8 students did the in-basket only. Of the 647 students who took the DIT, 56 were dropped due to unusable DIT data, a loss of 11.6%. This was not unexpected, as Rest advised that it is “typical to lose between 5 and 15% of a sample due to the reliability checks in many studies asking for volunteers” (Rest, 1990, section 3, p. 7). 26 students were dropped due to missing or inappropriately repeated in-basket data, a loss representing 5% of the 498 subjects who participated in the in-basket task. 118 students were dropped because they did not participate in both stages of the study. 17 of the 118 were not contacted to return for stage two of the study since 1 was a graduate student and 16 had dropped their Psychology class. 101 of the 118 were contacted repeatedly by phone and/or email to participate in a “second study”, and elected not to participate in both stages, a loss representing 15.4% of the 655 students who participated in at least one stage of the study.

Procedure

The study was conducted in two stages. Each stage was positioned as a separate study. In both stages participants were told that the researcher was collecting data on prioritizing and decision making skills.

In the first stage, participants completed the DIT (Appendix A) and a demographic information sheet (Appendix B), which also contained questions regarding the participants' self-efficacy for making ethical decisions. The self-efficacy data was collected for future research.

Prior to the second stage, DIT's were hand-scored. Based upon their P score, participants were divided into three groups, according to rules outlined by Rest (Rest, 1990, section 4, p. 4). Individuals, trichotomized by DIT score, were then randomly assigned to one of five conditions, as outlined in Table 1.

-Insert Table 1 about here-

The second stage had four steps. In the first step participants completed Rotter's Internal-External Locus of Control Scale. This data was collected for future research. In the second step participants were given 40 minutes to read and prioritize items in an in-basket (Appendix C). In the third step participants were asked to make a decision regarding three items contained in the in-basket (Appendix D) and to rate the importance of considerations that might be used in making those decisions. In the fourth step participants completed a post-exercise questionnaire (Appendix E). After completion of these four steps, the participants were debriefed.

375 participants (82.4% of the total 455) engaged in the study as described above, completing the DIT prior to coming back to complete the in-basket task. 80 participants

(17.6% of the total 455) completed in-basket first, and were asked to participate in a second study (the DIT) afterwards. Two analyses were conducted to ascertain if the sequence in which the two stages of the study were completed adversely impacted the data for those 80 participants. First, a t-test for equality of means was conducted on IBP and DITP for the 80 participants compared to the 375 participants. Table 2 shows that there were no significant differences in the means.

- Insert Table 2 about here-

Secondly, a regression analysis was conducted. The post-exercise questionnaire contained a question asking the participant to write what he/she thought was the purpose of the study. Coding for subjects whose answers included words such as “ethics, morality, honesty, etc.” is “purpose =1”. Coding for subjects whose answers did not include such words is “purpose = 0”. Because it was thought possible that the DIT scores for subjects who engaged in the in-basket task prior to taking the DIT might be influenced if the subject guessed the ethical nature of the study, DITP was regressed on “purpose” for those 80 participants. Results indicate that there is no significant relationship between DITP and “purpose” for the 80 subjects who completed the in-basket task prior to taking the DIT ($\beta = .09$, $r^2 = .01$, $F(1,78) = .609$, $p = .437$). Therefore, based on these two analyses, data from the 80 participants was treated the same as data for the 375 participants who completed the DIT first, for a total of 455 participants.

Experimental Task

An in-basket protocol was used to examine ethical decision making and a variety of considerations that might be used in making decisions when faced with an ethical

dilemma. The in-basket used in this study is a modification of that used in Trevino's 1987 dissertation. Wording changes were made on many of the Trevino items, and two fill items were dropped from the Trevino in-basket. New fill items written for this study include the memo from Howard Humphries regarding 2nd quarter product brochure and the memo from Evan Pickering regarding laptops. A checklist was added to help participants in the task of prioritizing.

Several major changes were made, with the most important being the addition of the RU and PE conditions. This change required a substitution for one of the reinforcement contingency situations. Sexual harassment, one of the situations used as a reinforcement contingency in Trevino's in-basket, was dropped since it was difficult to imagine that any company that would reward sexual harassment. The substitute is the competitive bid situation, with a different memo for each of the five conditions (control, RE, PU, RU, and PE).

Due to the addition of the RU and PE conditions, a pilot study of 15 Psychology graduate students was conducted to determine the appropriateness and equivalence of the rewards and punishments used in the two reinforcement contingency situations (competitive bid and wiring). Changes were made based on results of the pilot study, and the following rewards and punishments were used in the final in-basket. In the first situation, competitive bid, the reward given in both the RE and RU conditions was a bonus of 2 weeks paid vacation. The punishment given in both the PU and PE conditions was a 2-week suspension without pay. In the wiring situation, the reward given in both the RE and RU conditions was a letter of commendation, written by the President of the company and placed in the employee's file, encouraging management to promote the

employee at the earliest opportunity. The punishment given in both the PU and PE conditions was a letter of concern, written by the President of the company and placed in the employee's file, cautioning management against promoting the employee any further.

Another total change was made to one of the three ethical dilemmas. One of the dilemmas in Trevino's in-basket concerned hiring an employee from a competitor. Because this practice appears to be commonplace in business today, it was decided that it did not provide a true ethical dilemma. The order fulfillment dilemma was added as the replacement.

For the in-basket task, participants assumed the role of Pat Sneed, the National Sales Manager at Micrometer Electronics Corporation. It is Friday afternoon and, having been out of town all week, Pat's objective is to dispose of all matters in the in-basket within the next 70 minutes. In the first phase of the study, the participants have 40 minutes to read through all of the items in the in-basket and to prioritize them. In the second phase of the study, the participants have 15 minutes to make decisions on the course of action to take on three of the in-basket items (ethical dilemmas), and to rate the importance of a number of considerations that might be used when making these decisions.

The experimental task is the completion of the response forms for the three in-basket items containing an ethical dilemma (kickback decision, order fulfillment decision, and product component decision). The number of ethical decisions made and the in-basket principled reasoning score (IBP) derived from the importance ratings of the considerations were used as the dependent variables.

Independent Variables

This study contains two independent variables: cognitive moral development (CMD) and reinforcement contingency. Only reinforcement contingency is manipulated.

Reinforcement Contingency

Manipulation of the reinforcement contingency variable was achieved by varying the information provided in the in-basket. Although the materials given to each participant appeared to be the same, five different in-baskets were employed to provide five different conditions: the control condition, the reward ethical condition (RE), the punish unethical condition (PU), the reward unethical condition (RU), and the punish ethical condition (PE). These conditions were dummy coded for purposes of data analysis.

In each in-basket condition, two situations of an ethical nature were embedded. These two situations are the “competitive bid” and the “wiring” items.

Competitive Bid

Recently two technicians from Micrometer, Ed Williams and Victor Gardner, were at the offices of a potential client, Absolute Audio, working out the final specs for Micrometer’s big sales presentation to them next week. When the client temporarily left the room, Ed saw a copy of a sales presentation from Micrometer’s toughest competitor on the client’s desk. Ed took the presentation off the desk and put it into his briefcase.

Control Condition. Pat Sneed has received a memo from the Manager of Customer Relations, Charlene Cutter. In the memo Charlene tells Pat about the situation, acknowledges that Absolute Audio is the number one target account for Micrometer this year and that closing a deal with them is important, but she says she is not sure how the

company stands on this sort of behavior. Charlene says that she doesn't expect Pat to do anything about the situation, but that she just wanted someone in Marketing/Sales management to know.

RE Condition. Pat Sneed has received a memo from the President of Micrometer outlining the situation. When Ed Williams put the competitive bid into his briefcase, Victor Gardner threatened to blow the whistle unless Ed put the report back, which he did. As a thank you to Victor for "taking the high road", the President gave him a bonus of two weeks additional paid vacation.

PU Condition. Pat Sneed has received a memo from the President of Micrometer outlining the situation. When Ed Williams put the competitive bid into his briefcase, Victor Gardner threatened to blow the whistle unless Ed put the report back, which he did. Ed's behavior has been punished with a two-week suspension without pay.

RU condition. Pat Sneed has received a memo from the President of Micrometer outlining the situation. When Ed Williams put the competitive bid into his briefcase, Victor Gardner threatened to blow the whistle unless Ed put the report back. Ed ignored Victor's threats, and took the bid. The memo explains that Absolute Audio is the number one target account for Micrometer this year and that closing a sale with them is not only critical in making the yearly budget, but is a necessity for the company's long term survival. The President has attached a copy of the competitive bid and asks that it be reviewed by the Finance and Production departments and that recommendations be made to the President by next Monday so that Micrometer can position themselves competitively in the upcoming sales presentation to Absolute Audio. Ed, the technician

who took the sales presentation, has been given a bonus of two weeks additional paid vacation as a thank you.

PE condition. Pat Sneed has received a memo from the President of Micrometer outlining the situation. When Ed Williams put the competitive bid into his briefcase, Victor Gardner threatened to blow the whistle unless Ed put the report back, which he did. The memo explains that Absolute Audio is the number one target account for Micrometer this year and that closing a sale with them is not only critical in making the yearly budget, but is a necessity for the company's long term survival. The competitive bid would have provided invaluable information for Micrometer in positioning themselves competitively in the upcoming sales presentation to Absolute Audio. Victor has been suspended for two weeks without pay.

Wiring

Micrometer has substituted substandard wiring in some electronics components.

Control Condition. Pat Sneed has received a copy of a letter from Micrometer's President to a client. The letter is in reference to the client's inquiry about Micrometer's substitution of substandard wiring in some electronics components. The client is told that the company's officers will discuss the matter in the next executive committee meeting on March 23rd, and that the President will get back to him regarding the committee's decision.

RE Condition. Pat Sneed has received a memo from the President of Micrometer regarding the substitution of substandard wiring in some electronics components, which was reported to him by a plant foreman named Tom Brambley. The memo says that Jack Schuler, a plant manager, decided to make the substitution as a way to cut costs. Jack

claims that although the substandard wiring poses a potential hazard to clients, the upside in savings far outweighs the downside in potential lawsuits. The President says that a potential hazard to customers is never an option, not even to save money in these lean times. A letter of commendation from the President has been placed in Tom Brambley's file, encouraging management to promote Tom at the earliest opportunity.

PU Condition. Pat Sneed has received a memo from the President of Micrometer regarding the substitution of substandard wiring in some electronics components, which was reported to him by a plant foreman named Tom Brambley. The memo says that Jack Schuler, a plant manager, decided to make the substitution as a way to cut costs. Jack claims that although the substandard wiring poses a potential hazard to customers, the upside in savings far outweighs the downside in potential lawsuits. The President says that a potential hazard to customers is never an option, not even to save money in these lean times. A letter of concern from the President has been placed in Jack Schuler's file, cautioning management against promoting Jack any further due to his apparent failure to share company values.

RU Condition. Pat Sneed has received a memo from the President of Micrometer regarding the substitution of substandard wiring in some electronics components, which was reported to him by a plant foreman named Tom Brambley. The memo says that Jack Schuler, a plant manager, decided to make the substitution as a "creative" way to cut costs. The President says that although the substandard wiring poses a potential hazard to clients, the risk is small, and the upside in savings far outweighs the downside in potential lawsuits. A letter of commendation from the President has been placed in Jack Schuler's file, encouraging management to promote Jack at the earliest opportunity.

PE Condition. Pat Sneed has received a memo from the President of Micrometer regarding the substitution of substandard wiring in some electronics components, which was reported to him by a plant foreman named Tom Brambley. The memo says that Jack Schuler, a plant manager, decided to make the substitution as a “creative” way to cut costs. The President says that although the substandard wiring poses a potential hazard to clients, the risk is small, and the upside in savings far outweighs the downside in potential lawsuits. A letter of concern from the President has been placed in Tom Brambley’s file, cautioning management against promoting Tom any further due to his apparent failure to share company values.

Measures

Cognitive Moral Development (CMD)

The Defining Issues Test (DIT) was used as a measure of CMD (see Appendix A), with the participant’s P score being treated as a continuous variable.

In the DIT, participants read a total of six stories that describe an ethical dilemma. After a given story, the participant is offered two courses of action that a character in the story could take. The participant is asked to indicate, by a check mark, which of these actions should be taken (the participant is also offered a choice of “Can’t decide”). The choice of action is not used in determining the P score, since the purpose of the DIT is to determine the participant’s stage of moral reasoning in making an ethical decision, rather than to evaluate the decision itself.

Once the participant has indicated the action he/she believes the character in the story should take, he/she is asked to read twelve considerations that might be important to the character in deciding what action to take. The participant rates each of the twelve

considerations as having “great, much, some, little, or no” importance to the character when deciding a course of action.

Finally, the participant rereads the twelve considerations, picks the four he/she believes are the most important, and ranks those four as being the “most, second most, third most, and fourth most important” considerations. It is these rankings that are used to determine the P score. Rest, 1979, explained how the P score is derived:

The item ranked as first importance in each story is given 4 points; the item ranked second, 3 points; the item ranked third, 2 points; and the item ranked fourth, 1 point. Since each dilemma has four ranks, each has 10 points to distribute among the stages. Points are totaled across the six stories for each stage. For instance, if a Stage 3 item was ranked in first place and another Stage 3 item was ranked in fourth place on the Heinz story, and if another Stage 3 item on the next story was ranked in second place, Stage 3 points would be $4 + 1 + 3$. Total points would be calculated for each stage. There are 60 points in all, and the total number of points at each stage is divided by .60 to yield a percent score (for the convenience of having a base of 100 instead of 60). This procedure yields scores for Stage 2, 3, 4, 4 ½, 5A, [5B], 6, and M. The P index is calculated by adding together the scores of Stage 5A, 5B, and 6. The P index then represents the sum of weighted ranks given to “Principled” items, and is interpreted as the relative importance given to Principled moral considerations in making a moral decision (p. 100-101).

“Stage M”, which Rest refers to above, represents lofty sounding but meaningless considerations. Therefore, it represents a participant’s tendency to endorse pretentious

statements rather than a stage of thinking, and is used in the DIT as an internal check on subject reliability.

Rest also referred to Stages 5A and 5B. At one time Kohlberg split Stage 5 into two unique stages. According to Rest, Stage 5A corresponded to the discussion of the “morality of social contract” while Stage 5B corresponded to the discussion of the “morality of intuitive humanism” (Rest, 1990, section 4, p. 2). However, in his later work, Kohlberg once again unified Stages 5A and 5B into one Stage 5. This should not effect Rest’s scoring procedure. Likewise, Stage 4 ½ refers to a slightly more advanced Stage 4, and should not effect Rest’s scoring procedure.

According to Rest (1990), test-retest reliabilities for the P scores are generally in the high .70s or .80s. The Cronbach Alpha index of internal consistency is generally in the high .70s, and has been calculated by determining a participant’s stage score for each story, and then looking at the consistency of the stage score across all stories.

It should be noted that one modification was made to the DIT for use in this study. In the “Webster” dilemma, Rest used the term “Oriental” to describe people of Asian descent. That term was changed to “Asian American”, so as to be inoffensive to participants in the study.

Ethical Decision Making (EDM)

EDM was based on the total number of ethical decisions the participants made on three ethical dilemmas imbedded within the in-basket. (A pilot study of 15 Psychology graduate students supported the “ethical” and “not ethical” labeling of the two choices of action offered for each of the three dilemmas). EDM ranged from 0 (no ethical decisions made) to 3 (ethical decisions made on all three dilemmas).

Kickback Dilemma

In the first dilemma, hereafter referred to as the kickback dilemma (KB), a Regional Sales Director informs Pat Sneed that one of his sales reps has been paying kickbacks to the buyer at the largest client in his district. The Regional Sales Director suspects that if the kickbacks are stopped, not only will the increase in sales that Micrometer has experienced over the past six months due to the kickback scheme cease, but that sales for this client may actually be cut back to levels below last year. Pat has to decide whether to stop the kickbacks or permit them to continue.

Participants were offered two choices of action. One choice was to stop the kickbacks (coded as ethical and scored as “1”), the other was to allow them to continue (coded as unethical and scored as “0”).

Order Fulfillment Dilemma

In the second dilemma, hereafter referred to as the order fulfillment dilemma (OF), a Plant Manager informs Pat Sneed of a tug-of-war between two Regional Sales Managers regarding order fulfillment. Wright’s order was placed over 2 months ago for 20,000 units of a particular item for a total sale of \$90,000. Pickering’s order was placed 1 month ago for 19,500 units of the same item for a total sale of \$101,400 (due to an

increase in unit price). Inventory was not available to fulfill either order until this week, and the shipment that was sent to the plant is not sufficient to fulfill both orders. Due to a strike at the supplier, once the current stock is gone it will be quite some time before additional inventory is received by Micrometer. Pat has to decide which order to fulfill with the existing in-house stock.

Participants were offered two choices of action. One choice was to fulfill the first order for \$90,000 (coded as ethical and scored as “1”), the other was to fulfill the second order for \$101,400 (coded as unethical and scored as “0”).

Product Component Dilemma

In the third dilemma, hereafter referred to as the product component dilemma (PC), the Sr. V.P. of Production informs Pat Sneed that there will be a change in the material used in a particular product component in order to cut costs. While it is hoped that the new component will perform as well as the old one, it is unknown whether it will last as long. On most products this component is hidden, and the Sr. V.P. recommends that customers not be informed of the change due to his fear that, if told, a good many of them will cancel their orders with Micrometer and go with another firm that is still using the old material.

Participants were offered two choices of action. One choice was to insist upon telling customers of the component change (coded as ethical and scored as “1”), the other was to agree to not tell customers of the component change (coded as unethical and scored as “0”).

Principled Reasoning

The principled reasoning score from the in-basket (IBP) is a percentage, which reflects the participant's choice of a Stage 5 or Stage 6 consideration as one of the four most important considerations in making decisions about the three ethical dilemmas. Principled reasoning was determined in a manner similar to that used by Rest for the DIT. For each of the three ethical dilemmas, participants were offered six considerations that might be used in deciding what action to take. Each of the six considerations represented one of Kohlberg's six stages of cognitive moral development. Participants were asked to choose which of the six considerations they thought was the most important, 2nd, 3rd, and 4th most important. Two decisions, therefore, were not ranked for importance.

For each dilemma, the first most important item was given 4 points, the 2nd most important item was given 3 points, the 3rd most important item was given 2 points, and the 4th most important item was given 1 point. Points for Stage 5 and 6 considerations for each of the three dilemmas were added together and divided by 21 (the total number of possible points in Stages 5 and 6) for the total IBP, a score similar to the "P score" for the DIT. This score has a range of 0 to 100.

Manipulation Check

The post-exercise questionnaire (Appendix E) included a question designed to determine the success of the manipulation of the reinforcement contingencies independent variable. Participants were asked for their impression of Sam Simpson's position on the behavior of employees within Micrometer Electronics. A response of either "1 – He is highly supportive of UNETHICAL behavior" or "2 – He is somewhat supportive of UNETHICAL behavior" was expected from participants in the RU and PE

conditions. A response of “3 – I don’t know his position” was expected from participants in the control condition. A response of either “5 – He is highly supportive of ETHICAL behavior” or “4 – He is somewhat supportive of ETHICAL behavior” was expected from participants in the RE and PU conditions.

RESULTS

Descriptive Statistics

Sample means, standard deviations, and intercorrelations for study variables are shown in Table 3. A highlight of significant correlations follows.

-Insert Table 3 about here-

While age is positively correlated with gender ($r = .12, p < .05$) and negatively correlated with major ($r = -.15, p < .01$), the magnitude of the correlations are small, and there are no significant correlations between age and any of the other study variables.

Gender (female = 0, male = 1) is positively correlated with major (non-business = 0, business = 1) ($r = .18, p < .01$). Gender is negatively correlated with the kickback decision (KB) ($r = -.11, p < .05$), the order fulfillment decision (OF) ($r = -.15, p < .01$), and the product component decision (PC) ($r = -.19, p < .01$), all three of which are coded unethical = 0, ethical = 1. Consequently, gender is also negatively correlated with total ethical decision making (EDM) ($r = -.23, p < .01$).

Major was coded “1” for business majors (accounting, business, economics, finance, management, management science, and marketing) and “0” for non-business majors. Major is negatively correlated with DIT P score (DIT) ($r = -.18, p < .01$), with OF ($r = -.11, p < .05$), PC ($r = -.12, p < .01$), and with EDM ($r = -.14, p < .01$).

DITP is positively correlated with OF ($r = .11$, $p < .05$), and with the in-basket principled reasoning score (IBP) ($r = .17$, $p < .01$).

Manipulation Check

The one item manipulation check found in the post-exercise questionnaire asked participants to use a five-point scale to indicate “What position does Sam Simpson take on the behavior of employees within Micrometer Electronics?” All means are in the expected direction, as show in Table 4.

-Insert Table 4 about here-

Participants in the control condition were expected to answer “3 – I don’t know his position”. The mean for the control condition was 3.18, and differed significantly from the means of all other conditions. Participants in the reward ethical (RE) and punish unethical (PU) conditions were expected to answer either “4 – He is somewhat supportive of ETHICAL behavior” or “5 – He is highly supportive of ETHICAL behavior”. The mean for RE was 4.05 which, as expected, did not differ significantly from the mean for PU, which was 3.91 ($p = .38$). Participants in the reward unethical (RU) and punish ethical (PE) conditions were expected to answer either “2 – He is somewhat supportive of UNETHICAL behavior” or “1 – He is highly supportive of UNETHICAL behavior”. The mean for RU was 2.79 which, as expected, did not differ significantly from the mean for PE, which was 2.56 ($p = .16$).

Hypotheses

Separate hierarchical regression analyses were conducted for the two dependent variables, ethical decision making (EDM) and in-basket principled reasoning score (IBP).

Because of the significant negative correlation between gender (female = 0,

male = 1) and EDM, EDM was regressed on gender, the DIT P score (DITP, the operationalization of the cognitive moral development attribute) and reinforcement contingencies. The independent variables were entered in the following order: (1) gender; (2) DITP; (3) reinforcement contingencies (condition); (4) the two-way interaction involving gender and DITP; (5) the two-way interaction involving gender and reinforcement contingencies; (6) the three-way interaction involving gender, DITP, and reinforcement contingencies. Table 5 reports the results of the hierarchical regression analysis, which indicates that there is a significant main effect of gender, but no significant main effects of either DITP or reinforcement contingencies, nor a significant two-way interaction between gender and DITP, nor a significant three-way interaction between gender, DITP, and reinforcement contingencies.

-Insert Table 5 about here-

Further analysis was necessary to test hypotheses one through three in order to examine the individual effects of each of the reinforcement contingencies. To this end, EDM was regressed on DITP by condition. Table 6 shows the results of these individual regression analyses.

-Insert Table 6 about here-

Hypothesis 1. The first hypothesis stated that in the control condition, in which it is unknown to the participant how the organization responds to ethical or unethical behavior, there would be a positive linear relationship between EDM and DITP. As shown in Table 5, regression analysis did not support this hypothesis. In the control condition, DITP had no significant effect on EDM ($M = 2.37$, $r^2 = .01$, $F(1,92) = 1.13$, $p = .29$).

Hypothesis 2. The second hypothesis stated that in the RE and PU conditions there would be no linear relationship between EDM and DITP. In essence, this was a statement of the null hypothesis, which was not rejected, as shown in Table 6. In the RE condition, DITP had no significant effect on EDM ($\underline{M} = 2.46$, $\underline{r}^2 = .00$, $\underline{F} (1, 91) = .01$, $\underline{p} = .95$). In the PU condition, DITP had no significant effect on EDM ($\underline{M} = 2.44$, $\underline{r}^2 = .00$, $\underline{F} (1,87) = .23$, $\underline{p} = .63$).

Hypothesis 3. The third hypothesis stated that in the RU and PE conditions there would be a positive curvilinear relationship between EDM and DITP. Low and mid-range DITP individuals would make the same number of ethical decisions, which would be lower than the number of ethical decisions made by high DITP individuals. A regression analysis was first conducted to test for linear relationships. As shown in Table 6, in the RU condition there is no linear relationship between DITP and EDM ($\underline{M} = 2.26$, $\underline{r}^2 = .04$, $\underline{F} (1,84) = 3.14$, $\underline{p} = .08$). In the PE condition there is no linear relationship between DITP and EDM ($\underline{M} = 2.28$, $\underline{r}^2 = .03$, $\underline{F} (1,91) = 3.01$, $\underline{p} = .09$). A test for quadratic and cubic relationships for both the RU and PE conditions showed that there were none.

Exploratory. Post hoc chi-square analyses of goodness-of-fit were conducted on EDM and all three ethical dilemmas to ascertain if there were significant differences in the results for each manipulated condition versus the control condition. As shown in Table 7, for EDM, results for the RE ($\underline{M} = 2.46$, $\chi^2 (3, \underline{n} = 93) = 10.60$, $\underline{p} < .05$), PU ($\underline{M} = 2.44$, $\chi^2 (3, \underline{n} = 89) = 10.55$, $\underline{p} < .05$), and PE ($\underline{M} = 2.28$, $\chi^2 (3, \underline{n} = 93) = 15.09$, $\underline{p} < .01$) conditions differed significantly from the control condition ($\underline{M} = 2.37$).

-Insert Table 7 about here-

For the kickback decision (see Table 8), only results from the PE condition

($\underline{M} = .67$, $\chi^2(1, n = 93) = 11.64$, $p < .01$) differed significantly from the control condition ($\underline{M} = .81$).

-Insert Table 8 about here-

For the order fulfillment decision (see Table 9), only results from the PU condition ($\underline{M} = .80$, $\chi^2(1, n = 89) = 5.08$, $p < .05$) differed significantly from the control condition ($\underline{M} = .87$).

-Insert Table 9 about here-

For the product component decision (see Table 10), results from the RE ($\underline{M} = .78$, $\chi^2(1, n = 93) = 4.06$, $p < .05$), PU ($\underline{M} = .80$, $\chi^2(1, n = 89) = 5.21$, $p < .05$), and PE ($\underline{M} = .80$, $\chi^2(1, n = 93) = 5.01$, $p < .05$) conditions, differed significantly from the control condition ($\underline{M} = .69$).

-Insert Table 10 about here-

In order to test hypotheses four through six, IBP (In-Basket P score, the percentage of principled reasoning used in the in-basket) was regressed on DIT (DIT P score) and condition to test for an attribute-treatment-interaction (ATI). The independent variables were entered in the following order: (1) DIT; (2) condition; and (3) the two-way interaction involving DIT and condition. Table 11 reports the results of the hierarchical regression analysis, which indicates that there is a significant main effect of DITP ($\beta = .17$, $r^2 = .03$, $F(1,453)$, $p < .01$). There is no significant main effect for reinforcement contingencies, nor are there significant interaction effects.

-Insert Table 11 about here-

Further analysis was necessary to test hypotheses four through six in order to examine the individual effects of each of the reinforcement contingencies. To this end, IBP was regressed on DIT by condition. Table 12 shows the results of these individual regression analyses.

-Insert Table 12 about here-

Hypothesis 4. The fourth hypothesis stated that in the control condition there would be a positive linear relationship between IBP and DITP. As shown in Table 12, regression analysis does support this hypothesis ($\beta = .30$, $r^2 = .09$, $F(1,92) = 8.99$, $p < .01$).

Hypothesis 5. The fifth hypothesis stated that in both the RE and PU conditions there would be a positive curvilinear relationship between IBP and DITP. The IBP would be the same for low and mid-range DITP individuals, and would be lower than the IBP for high DITP individuals. A regression analysis was first conducted to test for linear relationships. As shown in Table 12, in the RE condition there is no linear relationship between IBP and DITP ($\beta = .05$, $r^2 = .00$, $F(1,91) = .25$, $p = .62$). In the PU condition there is a positive linear relationship between IBP and DITP ($\beta = .25$, $r^2 = .06$, $F(1,87) = 5.71$, $p < .05$). A test for quadratic and cubic relationships for both the RE and PU condition showed that there were none. Because the hypothesis posited a curvilinear relationship, it is not supported.

Hypothesis 6. The sixth hypothesis stated that in both the RU and PE conditions there would be a positive curvilinear relationship between IBP and DITP. IBP would be the same for low and mid-range DIT individuals, and would be lower than high DITP individuals. A regression analysis was first conducted to test for linear relationships. As

shown in Table 12, in the RU condition there is a positive linear relationship between IBP and DITP ($\beta = .24$, $r^2 = .06$, $F(1,84) = 5.02$, $p < .05$). A test for quadratic and cubic relationships showed that there were none, the relationship is linear rather than curvilinear. In the PE condition there is no linear relationship between IBP and DITP ($\beta = .00$, $r^2 = .00$, $F(1,91) = .00$, $p = .97$). A test for quadratic and cubic relationships between IBP and DITP for the PE condition showed that there were none. Because the hypothesis posited a curvilinear relationship, it is not supported.

Frequencies of stages selected as “most important” consideration for the in-basket ethical dilemmas are shown in Table 13. Stage 4 was selected most frequently in KB and OF, while Stages 4 and 6 were tied for most frequently selected stage in PC.

- Insert Table 13 about here-

DISCUSSION

Kohlberg’s theory of Cognitive Moral Development (CMD) postulates that moral development is a process by which an individual’s moral reasoning matures through six stages of distinctly and qualitatively different modes of thinking. Individuals at low levels (Stages One through Four) of CMD are motivated by external forces such as punishments, rewards, and expectations of society. Individuals at the highest level (Stages Five and Six) are motivated by internal forces such as self-chosen principles of rights and justice. The question of interest is whether moral reasoning predicts ethical behavior. While Kohlberg (1981a) claimed that moral maturity *should* predict mature moral action, Rest (1986) suggested that an individual capable of high level moral reasoning “may prize other goals more” and “may not behave morally” (p. 455).

In her “Person-Situation Interactionist Model”, Trevino (1986) posited that reinforcement of behavior within the immediate job context acts as a situational moderator of the main effect of moral cognition on moral action. A synthesis of Kohlberg’s theory of CMD with Trevino’s model seems to suggest that external forces that encourage ethical behavior should influence individuals at lower levels of CMD to behave ethically, while external forces that encourage unethical behavior should influence those same individuals to behave unethically. Individuals at the highest level of CMD should be unaffected by external forces, and should behave ethically regardless of the situation.

Ethical Decision Making

Based on Kohlberg’s theory and Trevino’s model, it was anticipated that ethical decision making (EDM) would be influenced by both CMD and reinforcement contingencies, but an analysis of the data found no main effect of either. However, a main effect was found for gender, with males making fewer ethical decisions than females.

The first hypothesis predicted that in a situation in which participants are not provided with information about punishment, rewards, or societal expectations (the control condition), individuals at lower levels of CMD would make fewer ethical decisions than individuals at the highest level of CMD. This condition provided a test of the main effect of CMD on EDM. This hypothesis was not supported. CMD only accounted for one percent of the variance in EDM, and this effect was not significant.

This lack of support for a causal relationship between CMD and EDM has been observed in past research. Trevino (1987) also failed to find a positive effect of CMD on EDM. It was hoped that the number of participants in this study (455) versus the number

of participants in Trevino's study (94) would allow for the detection of a smaller effect of CMD on EDM, if it existed, but this was not the case.

In exploring the reason why there was no linear relationship between CMD and EDM, a question to ask is whether individuals at lower levels of CMD made more ethical decisions than might be expected, or whether individuals at the highest level of CMD made fewer ethical decisions than might be expected. The answer appears to be "both". The range of total ethical decisions made at all levels of CMD was 0 – 3. However, the overall mean of EDM (2.37) was rather high, which might indicate social desirability response bias.

Hypothesis two suggested that in situations in which ethical behavior is rewarded (RE) and unethical behavior is punished (PU), both conditions thus encouraging ethical behavior, there would be no linear relationship between CMD and EDM. Because moral reasoning of individuals at lower levels of CMD is influenced by rewards, punishments, and societal expectations, therefore the informational cues found in the RE and PU conditions were expected to cause ethical decision making at all levels of CMD. In essence, this was a statement of the null hypothesis, in which the independent variable (CMD) would not have a significant effect on the dependent variable (EDM). The null hypothesis was not rejected. However, it was further anticipated that individuals at all levels of CMD would make the same number of ethical decisions. Although it was not explicitly stated, implicitly the expectation was that since the two conditions encouraged ethical behavior, the mean at all levels of CMD would be 3.00. This did not occur. The mean in the RE condition was 2.46 and the mean in the PU condition was 2.44. At all

levels of CMD participants made fewer than 3 ethical decisions, and at all levels of CMD participants made as many as 3 ethical decisions.

The third hypothesis suggested that in situations in which unethical behavior is rewarded (RU) and ethical behavior is punished (PE), both conditions thus encouraging unethical behavior, there would be a positive curvilinear relationship between CMD and EDM. Because moral reasoning of individuals at lower levels of CMD is influenced by rewards, punishments, and societal expectations, the external informational cues found in the RU and PE conditions were expected to cause fewer ethical decisions at the lower levels of CMD than at the highest level. This hypothesis was not supported. A curvilinear relationship was not found, providing evidence that these two reinforcement contingencies do not act as a moderator of CMD on EDM. In addition, a linear relationship was not found, providing further evidence that CMD does not have a main effect on EDM.

The determination of why CMD failed to predict EDM is beyond the scope of this study. However, Rest (1979) shed some light on the subject with his claim that “differences in moral sensitivity can complicate the relation between moral judgment and action” (p. 171). “Moral judgment scores tell us something about the general interpretive frameworks that a person brings to a moral problem, and presumably the way a person interprets a problem has a bearing on his decision making” (Rest, 1979, p. 260). In fact, Rest claimed, the initial step in the process of ethical decision making is “initial detection of a moral dilemma” (p. 170). “If one is morally insensitive, not even aware of a moral dilemma, then one’s moral conceptualization and moral character do not matter in determining one’s behavior” (p. 171). So, perhaps there was some ambiguity as to the

ethical nature of the dilemmas in the in-basket task. In fact, in the post-exercise questionnaire, only 27% of the participants ($n = 123$) stated that they thought the purpose of the study had something to do with ethics. The possibility that participants were insensitive to the ethical nature of the dilemmas encourages a closer analysis of the three ethical dilemmas themselves. The need for a closer analysis of the three dilemmas is also highlighted by both a very low standardized coefficient alpha of .36 for the three dilemmas, and by the low correlations between the dilemmas as indicated in Table 3.

A post hoc chi-square goodness-of-fit analysis was conducted to further explore the effects of reinforcement contingencies on EDM. Frequencies were examined for the control condition in each of the four categories (0, 1, 2, and 3). The percent of observed frequency in each category for the control condition was used to generate an expected frequency for each category for each of the manipulated conditions. (As noted in Table 7, percentages for the control condition in this study differed from the percentages for the control condition in the Trevino (1987) study.) The analysis showed a significant difference between the control condition and the RE, PU, and PE conditions. In addition, the means were in the hypothesized direction for all four of the manipulated conditions. The mean of the control condition was 2.37. Both the RE and PU conditions were expected to encourage ethical decision making, and indeed the means for those two conditions were higher (RE = 2.46, PU = 2.44) than the control condition. Both the RU and PE conditions were expected to encourage unethical decision making, and indeed the means for those two conditions were lower (RU = 2.26, PE = 2.28) than the control condition. It is unknown why the mean for the RU condition did not differ significantly

from the control condition. However, in general, these findings show support for a main effect of reinforcement contingencies on EDM.

This support, however, did not extend to the individual decisions themselves. In KB, only the PE condition differed significantly from the control condition. Yet, the means were in the hypothesized direction for all of the manipulated conditions (RE and PU were higher than the control condition, while RU and PE were lower than the control condition).

In OF, only the PU condition differed significantly from the control condition. In addition, the means for all of the manipulated conditions were lower than in the control condition, and not as hypothesized. This may have to do with participants' failure to recognize OF as an ethical dilemma.

In PC, all conditions except RU differed significantly from the control condition. Yet, while the means for RE and PU were higher than the control condition (as hypothesized) and the mean for RU was lower (as hypothesized) the mean for PE (which differed significantly from the control condition) was higher than the control condition (not in the hypothesized direction). No explanation can be given for this abnormality.

Principled Reasoning

As previously discussed, one major goal of this study was to examine the relationship between moral reasoning and moral action, with reinforcement contingencies as a potential moderator. Another major goal of this study was to analyze whether reinforcement contingencies affect moral reasoning itself.

Individuals at the lower levels of CMD (Stages One through Four) look to external factors when engaging in moral reasoning. Reasoning is focused on rewards in

Stage One, punishment in Stage Two, being approved of by others in Stage Three, and maintaining the given social order in Stage Four. Could external informational cues about rewards and punishments within a situation cause Stage Three and Stage Four individuals to regress to the lowest level of moral reasoning (Stages One and Two), in which reasoning is focused on rewards and punishments? Kohlberg's theory would argue against this proposal. "Our results... support the Piagetian stage model's assumption of invariant developmental sequence. With a few exceptions which can be attributed to scoring error, each of our subjects proceeded through the stages in the prescribed order, neither skipping stages nor regressing to an earlier level once a later stage had been attained" (Colby et.al., 1983, p. 74). In fact, "...if there are instances where individuals regress in their CMD or utilize different moral reasoning strategies in different situations, then Kohlberg's theory becomes untenable" (Fraedrich et.al., 1994, p. 833). Why fly in the face of Kohlberg's theory?

The view that CMD causes moral action assumes that one's moral behavior is altered by one's level of moral reasoning. Taking its cue from cognitive dissonance theory (Festinger, Riecken, & Schachter, 1956), an alternative view might hold that one's moral reasoning is caused by one's moral behavior, and that one's moral behavior is influenced, at least for individuals at lower levels of CMD, by external forces such as punishment, rewards, and societal expectations. Kohlberg (1981a) clearly understood the power of the situation in the reasoning process, as illustrated by the following.

Because "cheating is always wrong" means "you always get caught" for Stage 1 but "It's good to be honest because nice people are honest" for Stage 3, a Stage 1 subject cheats when there is no punishment, a Stage 3 subject when other nice

people are cheating. Implicit in Stage 3's definition of "good" is a stereotypical conception of "what most people do" and "expect", which is much more potent in defining the situation conditions of cheating or not cheating than are variations in the intensity of statements about the value of honesty (p. 186).

The fourth hypothesis predicted that in the control condition, where punishment, reward, and societal expectation cues are not present, there would be a positive linear relationship between CMD (as measured by the DITP) and principled reasoning usage in the in-basket task (as measured by the IBP). Regression analysis found support for this hypothesis. However, no support was found to indicate that the scores are equivalent, as one might expect. The correlation between DITP and IBP was only .30 with an r^2 of .089, indicating that only 8.9% of the variance in IBP can be accounted for by DITP. Why aren't these measures higher? The answer to this question might be found in the actual structure of the two tests.

The DIT consists of six dilemmas, whereas the in-basket consists of only three. In the DIT twelve considerations are offered for each dilemma, from which the participant is asked to rank the four most important. In the in-basket six considerations are offered for each dilemma, from which the participant is asked to rank the four most important. The twelve considerations for each of the DIT dilemmas range from Stage 2 through Stage 6, rather than from Stage 1 through Stage 6. In addition, the number of considerations offered in the DIT for each stage is not consistent within each dilemma, nor from dilemma to dilemma. In the Heinz dilemma, for example, one consideration is at Stage 2, three are at Stage 3, two are at Stage 4, two are at Stage 5, one is at Stage 6, two are considered

“meaningless” (included as a reliability check), and one was included to “to typify an ‘anti-establishment’ orientation” (Rest, 1990, section 4, p. 2). In the Prisoner dilemma, no considerations are offered for Stage 2, three are offered for Stage 3, four for Stage 4, two for Stage 5, one for Stage 6, one was meaningless, and one was anti-establishment. (A delineation of Stages for all considerations for each of the six dilemmas can be found in Appendix A.) Contrary to the DIT, in the in-basket one consideration was offered for each of the six Stages in each of the three dilemmas.

One additional observation must be made. Results of the in-basket may be confounded by the dissimilarity of the considerations offered for each stage of moral reasoning. Figure 3 lists the considerations offered for each stage for each dilemma. Of particular interest are the considerations offered for Stage One (punishment). The punishment for KB was getting fired, for OF it was being reprimanded, and for PC it was having a promotion blocked. Support for the dissimilarity of these three punishments is offered by the frequency with which each of these considerations was ranked as most important (Table 21). 29% of the 455 participants in the study ranked the punishment consideration as most important in KB, whereas only 4.8% ranked the punishment consideration as most important in OF, and only 2.9% ranked it as most important in PC.

It should be noted that it is only in the control condition, in which no manipulation occurred, that the in-basket task that produced the IBP was intended to be a parallel test to the DIT. In the four manipulated conditions the IBP was intended to be a dependent variable.

The fifth hypothesis suggested that in the reward ethical (RE) and punish unethical (PU) conditions, there would be a positive curvilinear relationship between DITP and IBP. By making rewards and punishment salient, the IBP for individuals at lower levels (Stages One through Four) of DITP were expected to be the same, and were expected to be lower than IBP for individuals at high levels of DITP. A curvilinear relationship was not found for either RE or PU, and therefore the hypothesis was not supported. One interesting finding, that was not hypothesized, was the positive linear relationship between IBP and DITP in the PU condition. An r^2 of .06 indicates that 6% of the variance in IBP was accounted for by DITP in the PU condition.

The sixth hypothesis suggested that in the reward unethical (RU) and punish ethical (PE) conditions, there would be a positive curvilinear relationship between DITP and IBP. By making rewards and punishment salient, the IBP for individuals at lower levels (Stages One through Four) of DITP were expected to be the same, and were expected to be lower than IBP for individuals at high levels of DITP. A curvilinear relationship was not found for either RU or PE, and therefore the hypothesis was not supported. An interesting finding, that was not hypothesized, was the positive linear relationship between IBP and DITP in the RU condition. An r^2 of .06 indicates that 6% of the variance in IBP was accounted for by DITP in the RU condition. Again, since the relationship is positive, this finding offers no support for the suggestion that reinforcement contingencies might cause Stage Two through Four individuals to regress to lower stages of moral reasoning. However, coupled with the findings in Hypothesis 5, one is left

to wonder whether it is a question of “reward versus punishment” or of “unethical versus ethical” that needs to be explored.

Implications and Future Research

Should this study be replicated in the future, several changes are suggested. First, one might consider using the Defining Issues Test, Version 2 (DIT2) rather than the DIT, which was employed in this study. The DIT2 “updates dilemmas and items, shortens the original Defining Issues Test (DIT1) of moral judgment, and purges fewer participants for doubtful response reliability” (Rest, Narvaez, Thomas, & Bebeau, 1999, p. 644). In addition, the first study of the DIT2, using 200 participants, showed an improvement in validity trends over the DIT1 (p. 657).

A second suggestion is to rewrite the considerations offered in the in-basket task. The number of considerations offered for each dilemma should be increased to twelve from six, in order to come closer to the structure of the DIT2, which continues to offer twelve considerations for each dilemma. More importantly, the considerations should be pilot tested for equivalency at each stage for all of the dilemmas.

A third suggestion is to add more dilemmas to the in-basket task. The DIT2 was shortened from six dilemmas to five. It is suggested that the number of dilemmas in the in-basket task be increased from three to five for a more equivalent structure. Each of the dilemmas should be pilot tested to determine whether or not that dilemma is readily identified as being ethical in nature. In addition, a manipulation check should be included in the study to verify that

participants were able to identify the ethicality of each dilemma. The pilot test should also examine correlations between the dilemmas, and check for reliability between the items (dilemmas).

A fourth suggestion is to review, a priori, the literature concerning the effectiveness of punishments and rewards in influencing behavior. Perhaps this review of this literature will lead to a revision of the hypotheses. It might also be interesting to see if any research has been done on the effects of making unethical behavior, rather than ethical behavior, salient.

A fifth suggestion is to determine, a priori, the expected frequencies of ethical decision making in a control condition so that a comparison may be made of the effects of the individual reinforcement contingencies.

A sixth suggestion is that the researcher carefully consider the wisdom of using undergraduates as participants in this type of experiment. It is difficult to imagine that undergraduates, with their limited business experience, can fully appreciate the pressures one faces in the business world. Perhaps the task could be revised and dilemmas could be written which mirror ethical dilemmas one faces as a college student. Or, keeping the same in-basket task, perhaps business people might be used as participants.

Still remaining is the disparity between ethical decision making and ethical action. (Saying what one “would” do may be a far cry from what one actually “does” do.) An in-basket task is not an appropriate vehicle to explore ethical action. Other techniques must be explored.

In addition to continuing experimental research in the lab, more “real life” research with people who have made “real life” decisions, both ethical and unethical,

when faced with “real life” moral dilemmas should be undertaken. Of course this type of research does not allow for the determination of causation, but it may shed light on the subject of ethics, providing richer experimental research questions. As Rest (1979) argues:

Since most moral judgment research has studied how people think under relaxed conditions, most of our information about moral judgment in hypothetical dilemmas has not involved highly charged situations. But performance “in the heat of battle” may fall short of intended performance or of performance under practice conditions. Practice situations are likely to differ from actual situations, because the latter “are for real” – that is, one feels the pressure of having something at stake. Real situations are likely to present more distractions and pressures than hypothetical ones, with actual people arguing and threatening, with the contagion of others’ actions, with the real difficulty of carrying out a line of action, rather than just intending it. Real situations are likely to be more ambiguous and confusing, because hypothetical situations often present the basic facts as established, whereas in real situations one must ascertain and interpret the situation as well as devise a plan in response to it (p. 176).

It is clear from the results of past research as well as from the current study, that we continue to have a need for a better understanding of the ethical decision making process. The grave consequences associated with unethical behavior, not only in the business arena, but also for society as a whole, should make the study of this topic a high priority.

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APPENDIX A
DEFINING ISSUES TEST (DIT)

Defining Issues Test (DIT)
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In this questionnaire you will be asked to give your opinion about several stories.

Here is a story as an example.

Frank Jones has been thinking about buying a car. He is married, has two small children and earns an average income. The car he buys will be his family's only car. It will be used mostly to get to work and drive around town, but sometimes for vacation trips also. In trying to decide what car to buy, Frank Jones realized that there were a lot of questions to consider. Below there is a list of some of these questions.

If you were Frank Jones, how important would each of these questions be in deciding what car to buy?

Instructions for Part A: (Sample Question)

On the left hand side check one of the spaces by each statement of a consideration. (For instance, if you think that statement #1 is not important in making a decision about buying a car, check the space on the right.)

IMPORTANCE:

Great	Much	Some	Little	No	
				✓	1. Whether the car dealer was in the same block as where Frank lives. (Note that in this sample, the person taking the questionnaire did not think this was important in making a decision.)
✓					2. Would a <u>used</u> car be more economical in the long run than a <u>new</u> car. (Note that a check was put in the far left space to indicate the opinion that this is an important issue in making a decision about buying a car.)
		✓			3. Whether the color was green, Frank's favorite color.
				✓	4. Whether the cubic inch displacement was at least 200. (Note that if you are unsure about what "cubic inch displacement" means, then mark it "no importance.")
✓					5. Would a large, roomy car be better than a compact car.
				✓	6. Whether the front connibilies were differential. (Note that if a statement sounds like gibberish or nonsense to you, mark it "no importance.")

Instructions for Part B: (Sample Question)

From the list of questions above, select the most important one of the whole group. Put the number of the most important question on the line marked "Most Important". Do likewise for your 2nd, 3rd and 4th most important choices. (Note that the top choices in this case will come from the statements that were checked on the far left-hand side – statements #2 and #5 were thought to be very important. In deciding what is the most important, a person would reread #2 and #5, and then pick one of them as the most important, then put the other one as "second most important," and so on.)

Most Important 5 Second Most Important 2 Third Most Important 3 Fourth Most Important 1

HEINZ AND THE DRUG

In Europe a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid \$200 for the radium and charged \$2000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about \$1000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and began to think about breaking into the man's store to steal the drug for his wife.

SS# _____

HEINZ AND THE DRUG

Should Heinz steal the drug? (Check one)

_____ Should steal it _____ Can't decide _____ Should not steal it

IMPORTANCE:

Great Much Some Little No

Great	Much	Some	Little	No	
					1. Whether a community's laws are going to be upheld.
					2. Isn't it only natural for a loving husband to care so much for his wife that he'd steal?
					3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?
					4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.
					5. Whether Heinz is stealing for himself or doing this solely to help someone else.
					6. Whether the druggist's rights to his invention have to be respected.
					7. Whether the essence of living is more encompassing than the termination of dying, socially and individually.
					8. What values are going to be the basis for governing how people act towards each other.
					9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
					10. Whether the law in this case is getting in the way of the most basic claim of any member of society.
					11. Whether the druggist deserves to be robbed for being so greedy and cruel.
					12. Would stealing in such a case bring about more total good for the whole society or not.

From the list of questions above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

STUDENT TAKE-OVER

At Harvard University a group of students, called the Students for a Democratic Society (SDS), believe that the University should not have an army ROTC program. SDS students are against the war in Vietnam, and the army training program helps send men to fight in Vietnam. The SDS students demanded that Harvard end the army ROTC training program as a university course. This would mean that Harvard students could not get army training as part of their regular course work and not get credit for it towards their degrees.

Agreeing with the SDS students, the Harvard professors voted to end the ROTC program as a university course. But the President of the University stated that he wanted to keep the army program on campus as a course. The SDS students felt that the President was not going to pay attention to the faculty vote or to their demands.

So, one day last April, two hundred SDS students walked into the university's administration building, and told everyone else to get out. They said they were doing this to force Harvard to get rid of the army training program as a course.

STUDENT TAKE-OVER

Should the students have taken over the administration building? (Check one)

_____ Yes, they should take it over _____ Can't decide _____ No, they shouldn't take it over

IMPORTANCE:

Great Much Some Little No

Great	Much	Some	Little	No	
					1. Are the students doing this to really help other people or are they doing it just for kicks?
					2. Do the students have any right to take over property that doesn't belong to them?
					3. Do the students realize that they might be arrested and fined, and even expelled from school?
					4. Would taking over the building in the long run benefit more people to a greater extent?
					5. Whether the President stayed within the limits of his authority in ignoring the faculty vote.
					6. Will the takeover anger the public and give all students a bad name?
					7. Is taking over a building consistent with principles of justice?
					8. Would allowing one student take-over encourage many other student take-overs?
					9. Did the President bring this misunderstanding on himself by being so unreasonable and uncooperative?
					10. Whether running the university ought to be in the hands of a few administrators or in the hands of all the people.
					11. Are the students following principles which they believe are above the law?
					12. Whether or not university decisions ought to be respected by students.

From the list of questions above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

ESCAPED PRISONER

A man had been sentenced to prison for 10 years. After one year, however, he escaped from prison, moved to a new area of the country, and took on the name of Thompson. For 8 years he worked hard, and gradually he saved enough money to buy his own business. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day, Mrs. Jones, an old neighbor, recognized him as the man who had escaped from prison 8 years before, and whom the police had been looking for.

ESCAPED PRISONER

Should Mrs. Jones report Mr. Thompson to the police and have him sent back to prison? (Check one)

_____ Should report him _____ Can't decide _____ Should not report him

IMPORTANCE:

Great	Much	Some	Little	No	
					1. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?
					2. Every time someone escapes punishment for a crime, doesn't that just encourage more crime?
					3. Wouldn't we be better off without prisons and the oppression of our legal systems?
					4. Has Mr. Thompson really paid his debt to society?
					5. Would society be failing what Mr. Thompson should fairly expect?
					6. What benefits would prisons be apart from society, especially for a charitable man?
					7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison?
					8. Would it be fair to all the prisoners who had to serve out their full sentences if Mr. Thompson was let off?
					9. Was Mrs. Jones a good friend of Mr. Thompson?
					10. Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances?
					11. How would the will of the people and the public good best be served?
					12. Would going to prison do any good for Mr. Thompson or protect anybody?

From the list of questions above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

THE DOCTOR'S DILEMMA

A lady was dying of cancer which could not be cured and she had only about six months to live. She was in terrible pain, but she was so weak that a good dose of pain-killer like morphine would make her die sooner. She was delirious and almost crazy with pain, and in her calm periods she would ask the doctor to give her enough morphine to kill her. She said she couldn't stand the pain and that she was going to die in a few months anyway.

THE DOCTOR'S DILEMMA

What should the doctor do? (Check one)

_____ He should give the lady an overdose that will make her die

_____ Can't decide

_____ Should not give the overdose

IMPORTANCE:

Great Much Some Little No

Great	Much	Some	Little	No	
					1. Whether the woman's family is in favor of giving her the overdose or not.
					2. Is the doctor obligated by the same laws as everybody else if giving her an overdose would be the same as killing her.
					3. Whether people would be much better off without society regimenting their lives and even their deaths.
					4. Whether the doctor could make it appear like an accident.
					5. Does the state have the right to force continued existence on those who don't want to live.
					6. What is the value of death prior to society's perspective on personal values.
					7. Whether the doctor has sympathy for the woman's suffering or cares more about what society might think.
					8. Is helping to end another's life ever a responsible act of cooperation.
					9. Whether only God should decide when a person's life should end.
					10. What values the doctor has set for himself in his own personal code of behavior.
					11. Can society afford to let everybody end their lives when they want to.
					12. Can society allow suicides or mercy killing and still protect the lives of individuals who want to live.

From the list of questions above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

WEBSTER

Mr. Webster was the owner and manager of a gas station. He wanted to hire another mechanic to help him, but good mechanics were hard to find. The only person he found who seemed to be a good mechanic was Mr. Lee, but he was Chinese. While Mr. Webster himself didn't have anything against Asian Americans, he was afraid to hire Mr. Lee because many of his customers didn't like Asian Americans. His customers might take their business elsewhere if Mr. Lee was working in the gas station.

When Mr. Lee asked Mr. Webster if he could have the job, Mr. Webster said that he had already hired somebody else. But Mr. Webster really had not hired anybody because he could not find anybody who was a good mechanic besides Mr. Lee.

WEBSTER

What should Mr. Webster have done? (Check one)

_____ Should have hired Mr. Lee _____ Can't decide _____ Should not have hired him

IMPORTANCE:

Great Much Some Little No

Great	Much	Some	Little	No	
					1. Does the owner of a business have the right to make his own business decisions or not? _____
					2. Whether there is a law that forbids racial discrimination in hiring for jobs. _____
					3. Whether Mr. Webster is prejudiced against Asian Americans himself or whether he means nothing personal in refusing the job. _____
					4. Whether hiring a good mechanic or paying attention to his customers' wishes would be best for his business. _____
					5. What individual differences ought to be relevant in deciding how society's roles are filled? _____
					6. Whether the greedy and competitive capitalistic system ought to be completely abandoned. _____
					7. Do a majority of people in Mr. Webster's society feel like his customers, or are a majority against prejudice? _____
					8. Whether hiring capable men like Mr. Lee would use talents that would otherwise be lost to society. _____
					9. Would refusing the job to Mr. Lee be consistent with Mr. Webster's own moral beliefs? _____
					10. Could Mr. Webster be so hard-hearted as to refuse the job, knowing how much it means to Mr. Lee? _____
					11. Whether the Christian commandment to love your fellow man applies in this case. _____
					12. If someone's in need, shouldn't he be helped regardless of what you get back from him? _____

From the list of questions above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

NEWSPAPER

Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinions. He wanted to speak out against the war in Vietnam and to speak out against some of the school's rules, like the rule forbidding boys to wear long hair.

When Fred started his newspaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all his articles for the principal's approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the paper in the next two weeks.

But the principal had not expected that Fred's newspaper would receive so much attention. Students were so excited by the paper that they began to organize protests against the hair regulation and other school rules. Angry parents objected to Fred's opinions. They phoned the principal telling him that the newspaper was unpatriotic and should not be published. As a result of the rising excitement, the principal ordered Fred to stop publishing. He gave as a reason that Fred's activities were disruptive to the operation of the school.

NEWSPAPER

Should the principal stop the newspaper? (Check one)

_____ Should stop it

_____ Can't decide

_____ Should not stop it

IMPORTANCE:

Great Much Some Little No

Great	Much	Some	Little	No	
					1. Is the principal more responsible to students or to the parents?
					2. Did the principal give his word that the newspaper could be published for a long time, or did he just promise to approve the newspaper one issue at a time?
					3. Would the students start protesting even more if the principal stopped the newspaper?
					4. When the welfare of the school is threatened, does the principal have the right to give orders to students?
					5. Does the principal have the freedom of speech to say "no" in this case?
					6. If the principal stopped the newspaper would he be preventing full discussion of important problems?
					7. Whether the principal's order would make Fred lose faith in the principal.
					8. Whether Fred was really loyal to his school and patriotic to his country.
					9. What effect would stopping the paper have on the students' education in critical thinking and judgments?
					10. Whether Fred was in any way violating the rights of others in publishing his own opinions.
					11. Whether the principal should be influenced by some angry parents when it is the principal that knows best what is going on in the school.
					12. Whether Fred was using the newspaper to stir up hatred and discontent.

From the list of questions above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

SCORING THE DIT

ITEM

STORY	1	2	3	4	5	6	7	8	9	10	11	12
Heinz	4	3	2	M	3	4	M	6	A	5A	3	5A
Student	3	4	2	5A	5A	3	6	4	3	A	5B	4
Prisoner	3	4	A	4	6	M	3	4	3	4	5A	5A
Doctor	3	4	A	2	5A	M	3	6	4	5B	4	5A
Webster	4	4	3	2	6	A	5A	5A	5B	3	4	3
Newspaper	4	4	2	4	M	5A	3	3	5B	5A	4	4

SS# _____

STORY	2	3	4	5a	5b	6	A	M	P	#2	#3
Heinz											
Students											
Prisoner											
Doctor											
Webster											
Newspaper											
Raw Stage Score											
Percents (Divide by.6)											

1. Eliminate M>8 raw or M>14% _____
2. Ranks and ratings agree (i.e. Rank #1 cannot have anything rated higher). Eliminate if >2 stories _____
3. No more than 9 items rated the same. Eliminate if more than one story has 9 rated the same. _____

APPENDIX B
DEMOGRAPHIC INFORMATION SHEET

Demographic Information Sheet

SS# _____

Please circle the appropriate answer to the following items:

SEX: Female Male

AGE: 17 18 19 20 21 22 Other (please specify) _____

ACADEMIC YEAR: Freshman Sophomore Junior Senior

MAJOR (choose the one option that is most descriptive of your major):

- | | |
|-----------------------------------|---------------------------------|
| Agriculture/Life Sciences | Psychology/Philosophy/Sociology |
| Architecture | Undeclared |
| Biology/Chemistry/Geology/Physics | Other (please specify) _____ |
| Black Studies | |
| Business | |
| Communications | |
| Computer Science | |
| Education | |
| Engineering | |
| Fine Arts/Music/Theatre | |
| Forestry | |
| Language Arts | |
| Mathematics/Statistics | |

PLEASE USE THE FOLLOWING SCALE TO RATE HOW SURE YOU ARE THAT YOU CAN MAKE ETHICAL DECISIONS IN THE FOLLOWING SITUATIONS.

1	2	3	4	5
Certain I CANNOT	Somewhat certain I CANNOT	Don't know	Somewhat certain I CAN	Certain I CAN
1. When my peers make unethical decisions.				___
2. When my company seems to punish ethical behavior.				___
3. When making ethical decisions could result in a bonus or in getting promoted.				___
4. When someone could get hurt by an unethical decision.				___
5. When my unethical decision could result in my beating my competitor.				___
6. When someone I care about could benefit from my unethical decision.				___
7. When making unethical decisions could get me fired or demoted.				___
8. When my boss makes ethical decisions.				___
9. When no one could get hurt by an unethical decision.				___
10. When no one will know whether I made an ethical or an unethical decision.				___
11. When my company seems to value and reward ethical behavior.				___
12. When my peers make ethical decisions.				___
13. When my company seems to punish unethical behavior.				___
14. When making ethical decisions could get me fired or demoted.				___
15. When my ethical decision could result in my competitor beating me.				___
16. When I won't be held responsible for the consequences of my decision.				___
17. When making unethical decisions could result in a bonus or in getting promoted.				___
18. When someone I care about could benefit from my ethical decision.				___
19. When my boss makes unethical decisions.				___
20. When my company seems to value and reward unethical behavior.				___

APPENDIX C
IN-BASKET STEP ONE

**DIRECTIONS FOR STEP ONE OF THE IN-BASKET MANAGEMENT
DECISION MAKING TASK**

You are Pat Sneed, National Sales Manager for Micrometer Electronics Corporation, a manufacturer of electronics components. It is Friday afternoon, February 20th. You have been out of the office all week on business and will be out of the office all of next week as well. You have returned briefly to your office and have found the accompanying materials in your in-basket. You have exactly 70 minutes to dispose of all the matters in your basket before you leave to meet your spouse. Your new house is supposed to close this weekend and you are both supposed to meet with your attorney this evening.

When you are under so much time pressure, prioritizing is of the utmost importance. You will have 40 minutes to read through all of the attached materials and prioritize them in the order you believe is appropriate. You should use the enclosed checklist to number each item from most important (#1) to least important (#14). After 40 minutes the experimenter will return to give you the materials you will need for the second step of the study.

MICROMETER ELECTRONICS CORPORATION

PARTIAL ORGANIZATION CHART



ALL CONDITIONS

Micrometer Electronics Corporation Quarterly Newsletter

From: SAM SIMPSON, President

Quarterly Report

I had hoped to be able to report a more positive financial picture this quarter. However, sales were down again for the second consecutive quarter while expenses rose another 5%. I'm sure this trend is only temporary. If we all give that extra 10%, I know we'll turn those trends around. I appreciate the cooperation of every one of you on this matter.

Welcome

Lee Santini has joined the Marketing Department as Research Director. Lee spent the past two years at Stricklin Manufacturing as Research Assistant.

Jim Jennings has joined the Personnel Office as Assistant Personnel Director. Jim has an MBA from Wheaten University with a specialty in Human Resource Management.

Please join me in welcoming Jim and Lee to the Micrometer family.

Company Dinner

I'd like to remind you of the annual company dinner on Saturday, March 7th, at 4:30PM at John's Seafood Restaurant. As usual, the entire family is invited and games will be organized for the children. This is an opportunity for all of us to relax together. Please RSVP to my secretary, Gloria, with the number of adults and children who will be attending. I hope to see you there!

COMPETITIVE BID – CONTROL CONDITION

CONFIDENTIAL

February 16, 1999

TO: Pat Sneed

FR: Charlene Cutter, Manager Customer Relations

RE: Absolute Audio

Something has come to my attention that I feel you need to know about. Last week two of the technicians from our Production Department were over at our prospective client, Absolute Audio, working out the final specs in preparation for our big sales presentation to them next week.

Early in the meeting the client was called out of his office, at which time one of our guys noticed a copy of a sales presentation from our toughest competitor, Digitron Electronics, on the client's desk. I have it from reliable sources that he took the presentation off the desk and put it into his briefcase.

Being the number one target account for the Marketing/Sales division this year, I know how important it is to close the deal with Absolute. I'm also aware that in these lean times closing the deal with Absolute is not only important to Marketing/Sales, but is necessary for the company's long term survival. Still, I'm not sure how the company stands on this sort of behavior.

I don't expect you to do anything about this situation, but I just felt someone in Marketing/Sales management should know that this happened. I'd appreciate your keeping this memo confidential.

COMPETITIVE BID – REWARD ETHICAL CONDITION

CONFIDENTIAL

February 16, 1999

TO: All Department Heads

FR: Sam Simpson, President

RE: Absolute Audio

Last week Ed Williams and Victor Gardner, technicians from our Production Department, were visiting Matt Taylor, the chief technical engineer at our prospective client, Absolute Audio, in preparation for our big sales presentation to Absolute next week. As you are all well aware, Absolute Audio is the number one target account for the Marketing/Sales division this year. Closing a deal with Absolute is not only critical to Marketing/Sales in making their yearly budget, but is a necessity for our company's long term survival.

At some point during the meeting Matt left his office, and Ed saw a copy of a sales presentation from our top competitor, Digitron Electronics, on Matt's desk. Ed took the presentation from Matt's desk and put it into his briefcase. Victor threatened to blow the whistle on Ed unless he put the presentation back on Matt's desk, which Ed fortunately did.

It is true that there is a wealth of valuable information about our competitor contained in a document of this sort, not only of a sales nature, but information which affects finance and production as well. A review of this competitive presentation by the Finance and Production department heads could have provided our marketing/sales folks with the ammunition needed to win the contract. **HOWEVER**, stealing competitive bids is **NOT** the way that we at Micrometer do business.

Hats off to Victor Gardner, who had the good sense to take the high road. As a thank you, I have provided him with a bonus of two weeks additional paid vacation.

COMPETITIVE BID – PUNISH UNETHICAL CONDITION

CONFIDENTIAL

February 16, 1999

TO: All Department Heads

FR: Sam Simpson, President

RE: Absolute Audio

Last week Ed Williams and Victor Gardner, technicians from our Production Department, were visiting Matt Taylor, the chief technical engineer at our prospective client, Absolute Audio, in preparation for our big sales presentation to Absolute next week. As you are all well aware, Absolute Audio is the number one target account for the Marketing/Sales division this year. Closing a deal with Absolute is not only critical to Marketing/Sales in making their yearly budget, but is a necessity for our company's long term survival.

At some point during the meeting Matt left his office, and Ed saw a copy of a sales presentation from our top competitor, Digitron Electronics, on Matt's desk. Ed took the presentation from Matt's desk and put it into his briefcase. Victor threatened to blow the whistle on Ed unless he put the presentation back on Matt's desk, which Ed fortunately did.

It is true that there is a wealth of valuable information about our competitor contained in a document of this sort, not only of a sales nature, but information which affects finance and production as well. A review of this competitive presentation by the Finance and Production department heads could have provided our marketing/sales folks with the ammunition needed to win the contract. **HOWEVER**, stealing competitive bids is **NOT** the way that we at Micrometer do business.

Ed Williams has been suspended for two weeks without pay.

COMPETITIVE BID - REWARD UNETHICAL CONDITION

CONFIDENTIAL

February 16, 1999

TO: All Department Heads

FR: Sam Simpson, President

RE: Absolute Audio

Last week Ed Williams and Victor Gardner, technicians from our Production Department, were visiting Matt Taylor, the chief technical engineer at our prospective client, Absolute Audio, in preparation for our big sales presentation to Absolute next week. As you are all well aware, Absolute Audio is the number one target account for the Marketing/Sales division this year. Closing a deal with Absolute is not only critical to Marketing/Sales in making their yearly budget, but is a necessity for our company's long term survival.

At some point during the meeting Matt left his office, and Ed saw a copy of a sales presentation from our top competitor, Digitron Electronics, on Matt's desk. Ed took the presentation from Matt's desk and put it into his briefcase. A copy of the presentation is attached. There is a wealth of valuable information contained in this document, not only of a sales nature, but information which affects finance and production as well.

I would like all the Finance and Production department heads to review the attached and make recommendations to me by next Monday at 5PM so that we can position ourselves competitively against Digitron, and assure our success in winning this contract. Our marketing/sales folks plan on making the final presentation by the end of next week.

As thank you to Ed Williams, I have provided him with a bonus of two weeks additional paid vacation.

COMPETITIVE BID - PUNISH ETHICAL CONDITION

CONFIDENTIAL

February 16, 1999

TO: All Department Heads

FR: Sam Simpson, President

RE: Absolute Audio

Last week Ed Williams and Victor Gardner, technicians from our Production Department, were visiting Matt Taylor, the chief technical engineer at our prospective client, Absolute Audio, in preparation for our big sales presentation to Absolute next week. As you are all well aware, Absolute Audio is the number one target account for the Marketing/Sales division this year. Closing a deal with Absolute is not only critical to Marketing/Sales in making their yearly budget, but is a necessity for our company's long term survival.

At some point during the meeting Matt left his office, and Ed saw a copy of a sales presentation from our top competitor, Digitron Electronics, on Matt's desk. Ed took the presentation from Matt's desk and put it into his briefcase. There is a wealth of valuable information contained in a document of this sort, not only of a sales nature, but information which affects finance and production as well. A review of this competitive presentation by the Finance and Production department heads could have provided our marketing/sales folks with the ammunition needed to win the contract.

Unfortunately for us all, Victor threatened to blow the whistle on Ed unless he put the presentation back on Matt's desk. Ed did put the presentation back, and now we are left with no competitive information whatsoever.

It appears that I need to remind you that these are competitive times... there is a war out there, and we appear to be losing it. Our situation calls for 'guerilla warfare'... do whatever it takes to win and take no prisoners. As such, every member of the Micrometer Electronics Corporation needs to either get on board or find work elsewhere.

Victor Gardner has been suspended for two weeks without pay.

ALL CONDITIONS

February 18, 1999

TO: Pat Sneed

FR: Howard Humphries

RE: 2nd Quarter Product Brochure

The 2nd Quarter Product Brochure needs to go to the printer by Friday, February 27th.

Attached is a copy of the mock-up as it stands now. Since you are close to the sales troops out in the field, I'm asking you to review it carefully, make any necessary changes in red, and return it to my secretary by Monday, February 23rd.

Sorry for the late notice, Pat. The production guys dragged their feet on getting us some of the specs on the new products. Thanks in advance for your quick turnaround!

Cc: Max Mitchell

ALL CONDITIONS

February 16, 1999

TO: All Micrometer Electronics Vice Presidents

FR: Fred Frazier, Sr. Vice President/Financial Affairs

RE: Departmental Budgets

This is just to remind you that your departmental budget is due at the financial affairs meeting two weeks from today. I've asked that each department carefully scrutinize each expenditure and to submit a budget at least 5% below last year's approved budget for that department.

As we near the end of the fiscal year, I don't need to remind you of our company's financial condition. We have seen a continued decrease in sales volume for the past two quarters, and we desperately need to decrease our operating expenses, which have been rising. I appreciate your cooperation on this matter. Your assistance now will make my job easier later.

I look forward to seeing you at the meeting.

WIRING – CONTROL CONDITION

Micrometer Electronics Corporation
472 Olsen Street
Blacksburg, VA 24060

February 17, 1999

Mr. Ronald Hahn
President
Stellar Stereo Systems
1710 Johnston Highway
Tucson, Arizona 85704

Dear Mr. Hahn,

This is to acknowledge receipt of your recent letter to me and the officers of Micrometer Electronics Corporation in which you expressed your concern about the substitution of substandard wiring in some of our electrical components.

The officers and I will discuss this matter at the next executive committee meeting scheduled for March 23rd.

I will let you know what we decide.

Sincerely,

Sam Simpson
President

Cc: Fred Frazier
Howard Humphries
William Wyley
Max Mitchell
Pat Sneed

WIRING – REWARD ETHICAL CONDITION

February 17, 1999

TO: Micrometer Electronics Officers

FR: Sam Simpson, President

RE: Wiring

Recently Tom Brambley, a foreman in our Arizona plant, wrote me a letter regarding concern about the use of substandard wiring in some of our electrical components. A number of you received copies of that letter. I have just completed my own investigation.

As you all know, our industry is going through a lean period, and the mandate for all departments this year was to not only stay within budget, but to reduce expenses whenever possible. In an attempt to do this, Jack Schuler, the manager of the Arizona plant, found that substituting this lower grade wiring was not only undetectable, but substantially decreased his production costs.

However, the new wiring poses a potential hazard to our customers. Knowing this, Jack had his engineers run numerous tests, and they assured him that the probability of an electrical fire due to the wiring is insignificant. Additionally, Jack checked with our attorneys, ran the numbers through the Finance department, and decided that the upside in savings far outweighed an unlikely downside in potential lawsuits.

Folks, NOTHING is worth creating a potential hazard to our customers... not EVEN in these lean times... not EVEN when an upside in savings appears to outweigh a downside in lawsuits. NOTHING outweighs potential harm to our customers... EVER!

I am proud that Tom Brambley had the sense to blow the whistle on this unacceptable practice. His brave action proves to me that he has what it takes to be a leader. I have just finished writing a letter of commendation, to be placed in Tom's file, encouraging management to promote Tom at the earliest opportunity.

WIRING –PUNISH UNETHICAL CONDITION

February 17, 1999

TO: Micrometer Electronics Officers

FR: Sam Simpson, President

RE: Wiring

Recently Tom Brambley, a foreman in our Arizona plant wrote me a letter regarding concern about the use of substandard wiring in some of our electrical components. A number of you received copies of that letter. I have just completed my own investigation.

As you all know, our industry is going through a lean period, and the mandate for all departments this year was to not only stay within budget, but to reduce expenses whenever possible. In an attempt to do this, Jack Schuler, the manager of the Arizona plant, found that substituting this lower grade wiring was not only undetectable, but substantially decreased his production costs.

However, the new wiring poses a potential hazard to our customers. Knowing this, Jack had his engineers run numerous tests, and they assured him that the probability of an electrical fire due to the wiring is insignificant. Additionally, Jack checked with our attorneys, ran the numbers through the Finance department, and decided that the upside in savings far outweighed an unlikely downside in potential lawsuits.

Folks, NOTHING is worth creating a potential hazard to our customers... not EVEN in these lean times... not EVEN when an upside in savings appears to outweigh a downside in lawsuits. NOTHING outweighs potential harm to our customers... EVER!

I have just finished writing a letter of concern, to be placed in Jack Schuler's file, cautioning management against promoting Jack any further, due to his apparent failure to share company values.

WIRING - REWARD UNETHICAL CONDITION

February 17, 1999

TO: Micrometer Electronics Officers

FR: Sam Simpson, President

RE: Wiring

Recently Tom Brambley, a foreman in our Arizona plant wrote me a letter regarding concern about the use of substandard wiring in some of our electrical components. A number of you received copies of that letter. I have just completed my own investigation.

As you all know, our industry is going through a lean period, and the mandate for all departments this year was to not only stay within budget, but to reduce expenses whenever possible. In a proactive attempt to do just this, Jack Schuler, the manager of the Arizona plant, found that substituting this lower grade wiring was not only undetectable, but substantially decreased his production costs.

While the new wiring does pose a POTENTIAL hazard to our customers, Jack's engineers ran numerous tests, and Jack assures me that the probability of an electrical fire due to the wiring is insignificant. After checking with our attorneys, and running the numbers through the Finance department, I have decided that the upside in savings far outweighs an unlikely downside in potential lawsuits.

I want all of you to know how much I appreciate Jack's creative cost-cutting measure. I wish all of our employees realized that our overriding goals at this time must be keeping revenues high and costs low.

I have just finished writing a letter of commendation, to be placed in Jack Schuler's file, encouraging management to promote Jack at the earliest opportunity.

Cc: Jack Schuler

WIRING - PUNISH ETHICAL CONDITION

February 17, 1999

TO: Micrometer Electronics Officers

FR: Sam Simpson, President

RE: Wiring

Recently Tom Brambley, a foreman in our Arizona plant, wrote me a letter regarding concern about the use of substandard wiring in some of our electrical components. A number of you received copies of that letter. I have just completed my own investigation.

As you all know, our industry is going through a lean period, and the mandate for all departments this year was to not only stay within budget, but to reduce expenses whenever possible. In a proactive attempt to do just this, Jack Schuler, the manager of the Arizona plant, found that substituting this lower grade wiring was not only undetectable, but substantially decreased his production costs.

While the new wiring does pose a POTENTIAL hazard to our customers, Jack's engineers ran numerous tests, and Jack assures me that the probability of an electrical fire due to the wiring is insignificant. After checking with our attorneys, and running the numbers through the Finance department, I have decided that the upside in savings far outweighs an unlikely downside in potential lawsuits.

I want all of you to know how much I appreciate Jack's creative cost-cutting measure. It is unfortunate that not all of our employees realize that our overriding goals at this time must be keeping revenues high and costs low. We need team players, not whistle-blowers who interfere with managers who are doing everything they can do to keep the company solvent.

I have just finished writing a letter of concern, to be placed in Tom Brambley's file, cautioning management against promoting Tom, due to his apparent failure to share company values.

Cc: Jack Schuler

ALL CONDITIONS

February 19, 1999

TO: Pat Sneed

FR: Evan Pickering, Regional Sales Director

RE: Laptops

As you know, last month I ordered seven laptops for the seven Sales Reps in my district. The ones they had been using were dinosaurs and were more trouble than they were worth, so the reps had just stopped using them. The new ones are much faster, have all the latest bells and whistles, and should help them to be much more productive out in the field.

Trouble is, I max'd out my budget, and now don't have enough money to buy an eighth laptop for our new sales rep, Amy Jameson, who starts in another week. I could give Amy one of the old laptops, but I'm afraid that it will be such a frustration that she won't use it, and I want her to start off with good habits from day one.

Do you think you can squeeze some money out of the national sales budget so I can buy this eighth computer? Looks like I'll need about \$2100 total.

Thanks, Pat. I'd appreciate it if you could get back to me right away so I can have the computer in-house before Amy's first day.

KICKBACK DECISION – ALL CONDITIONS

February 20, 1999

TO: Pat Sneed

FR: Wayne Snider, Regional Sales Director

RE: Kickbacks

It has come to my attention that one of our sales reps, George Geoffrey, has been paying kickbacks to the buyer at the largest client in District 12, Smith & Sons Contractors. At this point George does not know that I am aware of the situation, but I know without a doubt that it is true.

Evidently here's how it works: George quotes the buyer our current rate card prices. The buyer then marks UP the costs by approximately 15-20%, and places a buy with George. Obviously the increase in unit prices translates into a larger contract with Micrometer and higher commissions for George. In turn, George gives the buyer a cash kickback of 50% of his incremental commission. With this system, George, Micrometer and the buyer benefit. Obviously Smith & Sons gets the short end of the stick with resultant lower profit margins.

Apparently George and the buyer have had this arrangement for the past six months, ever since she suggested it casually to George during a conversation in which she was complaining about the financial struggle she and her husband have had with two children in college.

I've done a thorough financial analysis of the situation. In the past six months, ever since engaging in kickbacks, George's sales with Smith & Sons are up a whopping 127% over the same period last year. While the 15-20% increase in unit price is partially responsible, most of the growth is due to an increase in quantity of product ordered vs. last year. It would appear that it is in the buyer's best interest to place the bulk of her business with Micrometer! It is possible that if we put a stop to this kickback scheme, not only will the increases cease, but the buyer may retaliate by cutting us back to levels below last year.

So, Pat, I'm coming to you for help in deciding what we should do. I'll take whatever action you feel is appropriate, or we can destroy this memo and forget we were ever aware of the situation.

Please let me know immediately of your decision.

ALL CONDITIONS

February 20, 1999

TO: Pat Sneed

FR: Leslie McGrath, Personnel Department

RE: Compensation Plan

Sam Simpson has asked Human Resources to review the compensation plans of all departments and get back to him with recommendations by February 27th. I've been asked by Georgette Mason, V.P. of Human Resources, to contact you regarding changes being considered in the compensation plan for sales personnel.

Three plans are currently being considered:

1. Stay with the current plan, which provides a yearly base salary of \$25,000 and 5% commission on sales.
2. Decrease the base salary to \$20,000 and increase the commission to 6%.
3. Increase the base salary to \$50,000 and decrease the commission to 2%.

We would like your input into the proposed plan before we make any recommendations to Sam. Please call at your earliest convenience. I would be happy to meet with you.

Thanks!

ALL CONDITIONS

February 19, 1999

TO: Pat Sneed

FR: Max Mitchell, Marketing

RE: Trade Show

Pat, normally I'd call you, but you've been out of town so much lately that I decided I'd better get a memo in your box. We have to decide soon about whether to get a booth at this May's regional trade show in Charlotte.

Once again we'll be asking for your salespeople's time to staff the booths. They get little out of it in the short term, but they often get some good leads to follow up on in the future.

As you know, it's expensive to go to these shows. Last year we figured that we came out about even financially. Still, I'm leaning towards recommending that we go. I guess I fear that if we don't go, the customers will forget we exist. And we can't afford that, especially now.

Let me know what you and your salespeople think. I'd appreciate a recommendation from you by March 2nd.

Let's meet for lunch if you're ever back I town. I'm getting tired of the cafeteria!

ORDER FULFILLMENT DECISION – ALL CONDITIONS

February 18, 1999

TO: Pat Sneed

FR: Alan Olsen, Plant Manager

RE: Order Fulfillment

My shipping folks are caught up in a big tug-of-war between two of your Regional Sales Directors, Richard Wright and Evan Pickering, so I'm writing to ask you to resolve the issue...

Early last December one of Wright's sales guys placed an order for 20,000 units of #76579 at \$4.50 per unit. Then on January 15th one of Pickering's guys placed an order for 19,500 units of the same #76579 at the new price of \$5.20 per unit (as you will remember, prices went up the first of the year).

Our stock for #76579 was too low last December to fulfill Wright's order. Last week we finally got a shipment, but we still don't have enough stock to fulfill BOTH orders (the shipment was for 23,000 units). Problem is, on Tuesday of this week the union at our supplier went on strike and word on the street is that the strike might go on for 6 months to a year. Of course we can always find another supplier, but with the increase in demand on them due to a strike at their competitor, there's no telling HOW long it might take to get our shipment in house.

Since you were out of town I called both Wright and Pickering to see if I could figure out what to do. Wright says that his client has been desperate for the product ever since the end of December, but that they've been patient with us because of a long-standing relationship they have with Micrometer. However, Wright says that the client, some little 'mom and pop' contractor, will be in deep financial trouble if they don't get this shipment.

Of course Pickering doesn't care about Wright's client's problem. His big pitch is that his order is for \$101,400 while Wright's order is for only \$90,000.

So, Pat, which order do we fill? If you could email me by Friday, I'll get the product shipped on Monday.

Thanks!

ALL CONDITIONS

Friday, February 20th

Pat –

Sorry I couldn't be here for your arrival back in town, but this doctor's appointment couldn't be changed. Anyway, here are a few important things for you to know about...

1. As your Administrative Assistant, I am perfectly willing to pull together our Sales Department budget. However, Richard Wright and Evan Pickering have not yet provided me with their regional budgets, despite a February 20th deadline. If you're to have that budget at 8AM on Monday, March 2nd, I must have the information from Richard and Evan by the first of next week. I realize you're only passing through the office, but I'd appreciate it if you could build a quick fire under those guys.
2. Your 'better half' called at about 230PM sounding pretty upset. It seems your bid on that house in the country might fall through. I don't know the details, but I think you'd better return the call right away.
3. With everything else that's going on, I hate to break more bad news, but you need to know that I'm planning to take a higher level job that's opened up in Finance. They've offered and I've accepted. It's the opportunity I've been waiting for to apply my newly earned degree. They're pushing for me to start in two weeks, so you and I had better talk.

Thanks!

Shirley

ALL CONDITIONS

February 16, 1999

TO: Pat Sneed

FR: Charlene Cutter, V.P./Customer Relations

RE: Roger Reeves

I just received a telephone call from a Ms. Sally Hanson of Reliable Electrical Contractors. She was complaining about the treatment they have received from one of your salespeople, Roger Reeves. I thought you should know that this is not the first complaint I've received on Reeves. Some of them seemed petty, so I didn't contact you, but they're beginning to add up.

I have a file if you're interested. Let me know.

PRODUCT COMPONENT DECISION – ALL CONDITIONS

February 18, 1999

TO: Pat Sneed

FR: William Wyley, Sr. V.P./Production

RE: Change in Product Component

I thought you should know that we have made a decision to change the material used in our #81643 brackets. We found a Japanese high density plastic substitute for the expensive metal brackets we were using. We should be able to decrease prices a bit, get an edge on our competitors and provide Micrometer with substantial profits. Based upon the manufacturer's specifications, we are hoping that the new component will perform as well as the old one. However, we don't know for sure whether it will last as long. That's something we'll just have to find out with time.

I know that we generally inform customers, through our sales reps, of any component changes in products they have ordered. However, this time I am recommending that we leave well enough alone. On most products the brackets are hidden. And right now sales figures show that we have an unusually high number of orders for products that include the 81643. I'm afraid that if we tell the customers, a good many of them will cancel their orders and go with another firm that's still using the metal brackets. You know how customers are about change.

I'll send you information on the new brackets as soon as it is ready so that your sales reps can at least be informed.

ALL CONDITIONS

February 17, 1999

TO: Micrometer Electronics Officers

FR: Sam Simpson, President

RE: Web Page

As you remember, at one of our meetings last year we discussed creating a corporate web page. I promised to get back to you with my decision.

Our systems people have looked into this and have made a recommendation to me. Based upon their advice, I have decided that we are going to have to postpone this temporarily. I know that many of you wanted us to take advantage of this relatively new technology. The Marketing and Sales folks were particularly interested in the potential for a web page to reach new customers who might be shopping electronic components online.

While I agree, and like the idea, at this time we just can't afford the startup costs, nor the additional personnel that would be required to maintain an up-to-date web page.

Please bear with us. When we have some slack in the budget again I assure you that a corporate web page will be back on the front burner.

CONTROL CONDITION

PRIORITIZING CHECKLIST

- Quarterly Newsletter _____
- Memo from Charlene Cutter re: Absolute Audio _____
- Memo from Howard Humphries re: 2nd Quarter Product Brochure _____
- Memo from Fred Frazier re: Departmental Budgets _____
- Letter from Sam Simpson to Ronald Hahn re: Substandard Wiring _____
- Memo from Evan Pickering re: Laptops _____
- Memo from Wayne Snider re: Kickbacks _____
- Memo from Leslie McGrath re: Compensation Plan _____
- Memo from Max Mitchell re: Trade Show _____
- Memo from Alan Olsen re: Order Fulfillment _____
- Note from Shirley re: Important Things _____
- Memo from Charlene Cutter re: Roger Reeves _____
- Memo from William Wyley re: Change in Product Component _____
- Memo from Sam Simpson re: Web Page _____

RE, PU, RU and PE CONDITIONS

PRIORITIZING CHECKLIST

- Quarterly Newsletter _____
- Memo from Sam Simpson re: Absolute Audio _____
- Memo from Howard Humphries re: 2nd Quarter Product Brochure _____
- Memo from Fred Frazier re: Departmental Budgets _____
- Memo from Sam Simpson re: Wiring _____
- Memo from Evan Pickering re: Laptops _____
- Memo from Wayne Snider re: Kickbacks _____
- Memo from Leslie McGrath re: Compensation Plan _____
- Memo from Max Mitchell re: Trade Show _____
- Memo from Alan Olsen re: Order Fulfillment _____
- Note from Shirley re: Important Things _____
- Memo from Charlene Cutter re: Roger Reeves _____
- Memo from William Wyley re: Change in Product Component _____
- Memo from Sam Simpson re: Web Page _____

APPENDIX D
IN-BASKET STEP TWO

MICROMETER ELECTRONICS CORPORATION IN-BASKET TASK PART TWO

Instructions:

In this part of the study you will be working with three of the memos that were contained in the in-basket:

1. Memo from Wayne Snider re: Kickbacks
2. Memo from Alan Olsen re: Order Fulfillment
3. Memo from William Wyley re: Change in Product Component

You will need to reread those memos before you proceed with the task.

For each memo you will be given two choices of action that Pat Sneed could take. While it is possible that neither action is exactly what you would do in this situation, you are to choose the ONE action that comes closest to representing the action you would take. Following each decision is a list of considerations that might be used in making this decision. Your task is to rank order the considerations according to how important you feel they are in making this decision.

The experimenter will return in 10 minutes to give you the materials you will need for the final step of the study.

MEMO FROM WAYNE SNIDER re: KICKBACKS

Please reread this memo (from Step One) before proceeding.

A. Place a checkmark next to the decision that comes closest to representing the action you would take.

_____ 1. You tell Wayne Snider to destroy all communication relating to the kickbacks and then ignore the situation.

_____ 2. You confront George about the kickbacks, order that they stop, and report the situation to Max Mitchell.

B. Please read the following considerations that might be used in making the above decision. From the list of considerations, please select the most important one of the whole group. Put the number of the most important question on the line marked "Most Important". Do likewise for your 2nd, 3rd, and 4th most important choices.

1. Whether providing kickbacks to some clients is fair to all of Micrometer Electronics' clients.

2. Whether you might get fired if upper management found out that you allowed one of your employees to give kickbacks.

3. Whether Micrometer Electronics has a policy regarding client kickbacks.

4. Whether stopping the kickbacks would be cruel because it would force the buyer's children to have to drop out of school due to a lack of family finances.

5. Whether allowing the kickbacks to continue would benefit more people than stopping the kickbacks.

6. Whether providing the kickbacks will help you get your yearly bonus because it helped your department reach budget.

From the list of considerations above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

MEMO FROM ALAN OLSEN re: ORDER FULFILLMENT

Please reread this memo (from Step One) before proceeding.

A. Place a checkmark next to the decision that comes closest to representing the action you would take.

_____ 1. You email Alan Olsen and tell him to fulfill Wright's \$90,000 order for 20,000 units.

_____ 2. You email Alan Olsen and tell him to fulfill Pickering's \$101,400 order for 19,500 units.

B. Please read the following considerations that might be used in making the above decision. From the list of considerations, please select the most important one of the whole group. Put the number of the most important question on the line marked "Most Important". Do likewise for your 2nd, 3rd, and 4th most important choices.

1. Whether Micrometer had a contract with Wright's client agreeing to fulfill their order first.
2. Whether you might get a bonus if your department's sales go up in the future because one company will place more business with Micrometer if you fulfill their order now.
3. Whether fulfilling one order rather than the other is consistent with principles of justice.
4. Whether fulfilling one order rather than the other would be violating the rights of others.
5. Whether you might be reprimanded for fulfilling the order for less money.
6. Whether a reputable company would fulfill orders based on a first come, first served basis.

From the list of considerations above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

MEMO FROM WILLIAM WYLEY re: CHANGE IN PRODUCT COMPONENT

Please reread this memo (from Step One) before proceeding.

A. Place a checkmark next to the decision that comes closest to representing the action you would take.

_____ 1. You write Wyley a memo telling him that you agree with his decision not to tell customers about the change. Tell him that you will inform your sales staff of the component change, but will direct them not to inform their customers.

_____ 2. You write Wyley a memo telling him that you are concerned about his decision not to inform customers. Insist to him that customers be informed by letter, with a follow-up visit from the Sales Reps.

B. Please read the following considerations that might be used in making the above decision. From the list of considerations, please select the most important one of the whole group. Put the number of the most important question on the line marked "Most Important". Do likewise for your 2nd, 3rd, and 4th most important choices.

1. Whether team players generally support the directives of upper management.

2. Whether telling your clients about the component change would protect anyone.

3. Whether Wyley could block your next promotion if you decide to go against his directive not to inform clients of the component change.

4. Whether it is recognized standard industry practice to inform clients of component changes.

5. Whether Wyley will put in a good word with Sam Simpson on your behalf if you go along with his directive not to inform clients of the component change.

6. Whether being honest and up front about a component change is something that your clients should fairly expect.

From the list of considerations above, select the four most important:

Most Important _____ Second Most Important _____ Third Most Important _____ Fourth Most Important _____

APPENDIX E
POST-EXERCISE QUESTIONNAIRE

POST-EXERCISE QUESTIONNAIRE

1. Please briefly state your perception of the purpose of the in-basket exercise.

Question 2 asks for your impression of Sam Simpson, the President of Micrometer Electronics. In the space provided beside the item, please insert the one number from the scale below the item that indicates your impression.

- _____ 2. What position does Sam Simpson take on the behavior of employees within Micrometer Electronics?

He is highly
supportive of
UNETHICAL
behavior

1

He is somewhat
supportive of
UNETHICAL
behavior

2

I don't
know his
position

3

He is somewhat
supportive of
ETHICAL
behavior

4

He is highly
supportive of
ETHICAL
behavior

5

THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY. PLEASE RETURN ALL MATERIALS TO THE EXPERIMENTER.

APPENDIX F
IN-BASKET SCORING

IN-BASKET SCORING

MEMO	Ethical	Unethical
Kickbacks	2	1
Order Fulfillment	1	2
Product Component	2	1

ITEM

MEMO	1	2	3	4	5	6
Kickbacks	6	1	4	3	5	2
Order Fulfillment	4	2	6	5	1	3
Product Component	3	5	1	4	2	6

Table 1

Random Assignment of Subjects to Conditions after Trichotomizing for DIT P score

Condition	Recommended DIT P score Cutoff Points			TOTAL
	Low Third	Middle Third	High Third	
	0 to 27	28 to 41	42 to 95	
Control	40	35	19	94
Reward Ethical	40	34	19	93
Punish Unethical	38	33	18	89
Reward Unethical	37	33	16	86
Punish Ethical	40	37	16	93
TOTAL	195	172	88	455

Table 2

T-Test for Equality of Means for 80 versus 375 participants

	When	n	Mean	t	df	Sig (2-tailed)
DITP	0	375	30.67			
	1	80	30.95	-.20	453	.85
IBP	0	375	57.47			
	1	80	58	-.29	453	.78

Note. DITP = DIT P score. IBP = In-Basket P score.

Table 3

Descriptive Statistics and Correlations Among All Study Variables

Variable	<u>M</u>	SD	1	2	3	4	5	6	7	8
1. Age	18.69	1.17	-							
2. Gender	.40	.49	.12 *	-						
3. Major	.31	.46	-.15 **	.18 **	-					
4. DITP	30.72	11.64	.08	-.03	-.18 **	-				
5. KB	.79	.41	.03	-.11 *	-.04	-.07	-			
6. OF	.83	.38	.03	-.15 **	-.11 *	.11 *	.05 ^a	-		
7. PC	.75	.44	.04	-.19 **	-.12 **	.05	.27 ** ^a	.16 ** ^a	-	
8. EDM	2.36	.81	.05	-.23 **	-.14 **	.04	.67 **	.58 **	.74 **	-
9. IBP	57.56	15.14	.01	-.03	-.06	.17 **	.14 **	.13 **	.25 **	.27 **

Note. N = 455 for all measures. Gender coded as female = 0 and male = 1. Major coded as non-business = 0 and business = 1. (Business includes Accounting, Business, Economics, Finance, Management, Management Science, and Marketing). DITP = DIT P score; KB = Kickback; OF = Order Fulfillment; PC = Product Component; EDM = Total Ethical Decision Making; IBP = In-Basket P score.

^aPhi Correlation.

* $p < .05$ ** $p < .01$

Table 4

Analysis of Manipulation Check

	Condition	Means	T-Tests of Differences Between Means					
			1	2	3	4	5	
1.	Control	3.18 <u>n</u> =94	-					
2.	Reward Ethical	4.05 <u>n</u> =93	5.46**	-				
3.	Punish Unethical	3.91 <u>n</u> =89	4.51**	-.89	-			
4.	Reward Unethical	2.79 <u>n</u> =86	-2.39*	-7.73**	-6.78**	-		
5.	Punish Ethical	2.56 <u>n</u> =93	-3.89**	-9.33**	-8.34**	-1.42	-	

* $p < .05$

** $p < .01$

Table 5

Hierarchical Regression Analysis of EDM on Gender, CMD, R.C., and Interactions

Predictors	B	SE B	β	R ²	ΔR^2	ΔF	Sig.
<u>Step 1: Gender</u>							
(Constant)	2.52	.05					
Gender	-.38	.08	-.23	.05	.05	24.81	.00
<u>Step 2: Cognitive Moral Development</u>							
DITP	2.17E-03	.00	.03	.05	.00	.46	.50
<u>Step 3: Reinforcement Contingencies</u>							
RE	.10	.12	.05				
PU	9.83E-02	.12	.05				
RU	-7.33E-02	.12	-.04				
PE	-6.81E-02	.12	-.03	.06	.01	1.06	.38
<u>Step 4: Gender x CMD Interaction</u>							
Gender * DITP	7.13E-03	.01	.15	.06	.00	1.17	.28
<u>Step 5: Gender x R.C. Interactions</u>							
Gender * RE	9.11E-02	.24	.03				
Gender * PU	.37	.24	.13				
Gender * RU	-9.71E-02	.24	-.03				
Gender * PE	-.20	.24	-.07	.08	.01	1.68	.15
<u>Step 6: Gender x DITP x R.C. Interactions</u>							
Gender * DITP * RE	-2.90E-02	.02	-.29				
Gender * DITP * PU	-2.05E-02	.02	-.23				
Gender * DITP * RU	-1.14E-02	.02	-.12				
Gender * DITP * PE	-4.30E-02	.02	-.48	.10	.02	2.17	.07

Note. N = 455. DITP = DIT P score; RE = Reward Ethical; PU = Punish Unethical;

RU = Reward Unethical; PE = Punish Ethical; CMD = Cognitive Moral Development;

R.C. = Reinforcement Contingencies.

Table 6

Regression Analysis of Ethical Decision Making on Cognitive Moral

Development, by Condition

Condition	<u>n</u>	Means	(Constant)	<u>B</u>	<u>SE B</u>	β	R^2	F
Control	94	2.37	2.13	7.67E-03	.01	.11	.01	1.13
Reward Ethical	93	2.46	2.45	4.27E-04	.01	.01	.00	.01
Punish Unethical	89	2.44	2.33	3.42E-03	.01	.05	.00	.23
Reward Unethical	86	2.26	1.82	1.46E-02	.01	.19	.04	3.14
Punish Ethical	93	2.28	2.70	-1.36E-02	.01	-.18	.03	3.01

Note. RE = Reward Ethical; PU = Punish Unethical; RU = Reward Unethical;

PE = Punish Ethical.

* $p < .05$ ** $p < .01$

Table 7

Post Hoc Chi-Square Goodness-of-Fit Analysis for Ethical Decision Making

Condition	<u>n</u>	Frequency	0	1	2	3	χ^2
Control	94	Observed	4	13	21	56	
		%	4.3%	13.8%	22.3%	59.6%	
		Trevino %	3.5%	24.1%	51.7%	20.7%	
RE	93	Observed	2	6	32	53	
		Expected	4	13	21	55	
		Residual	-2	-7	11	-2	10.60*
PU	89	Observed	3	5	31	50	
		Expected	4	12	20	53	
		Residual	-1	-7	11	-3	10.55*
RU	86	Observed	2	18	22	44	
		Expected	4	12	19	51	
		Residual	-2	6	3	-7	5.43
PE	93	Observed	5	8	36	44	
		Expected	4	13	21	55	
		Residual	1	-5	15	-11	15.09**

Note. RE = Reward Ethical; PU = Punish Unethical; RU = Reward Unethical;

PE = Punish Ethical.

* $p < .05$ ** $p < .01$

Table 8

Post Hoc Chi-Square Goodness-of-Fit Analysis for Kickback Dilemma

Condition	<u>n</u>	Frequency	Unethical	Ethical	χ^2
Control	94	Observed	18	76	
		%	19.1%	80.9%	
		Trevino %	26.7%	73.7%	
RE	93	Observed	14	79	
		Expected	18	75	
		Residual	-4	4	1.10
PU	89	Observed	14	75	
		Expected	17	72	
		Residual	-3	3	.65
RU	86	Observed	19	67	
		Expected	16	70	
		Residual	3	-3	.69
PE	93	Observed	31	62	
		Expected	18	75	
		Residual	13	-13	11.64**

Note. RE = Reward Ethical; PU = Punish Unethical; RU = Reward Unethical;

PE = Punish Ethical.

* $p < .05$ ** $p < .01$

Table 9

Post Hoc Chi-Square Goodness-of-Fit Analysis for

Order Fulfillment Dilemma

Condition	<u>n</u>	Frequency	Unethical	Ethical	χ^2
Control	94	Observed	12	82	
		%	12.8%	87.2%	
RE	93	Observed	16	77	
		Expected	12	81	
		Residual	4	-4	1.53
PU	89	Observed	18	71	
		Expected	11	78	
		Residual	7	-7	5.08*
RU	86	Observed	16	70	
		Expected	11	75	
		Residual	5	-5	2.61
PE	93	Observed	17	76	
		Expected	12	81	
		Residual	5	-5	2.39

Note. RE = Reward Ethical; PU = Punish Unethical; RU = Reward Unethical;

PE = Punish Ethical.

* $p < .05$ ** $p < .01$

Table 10

Post Hoc Chi-Square Goodness-of-Fit Analysis for Product Component Dilemma

Condition	<u>n</u>	Frequency	Unethical	Ethical	χ^2
Control	94	Observed	29	65	
		%	30.9%	69.1%	
		Trevino	40.0%	60.0%	
RE	93	Observed	20	73	
		Expected	29	64	
		Residual	-9	9	4.06*
PU	89	Observed	18	71	
		Expected	28	61	
		Residual	-10	10	5.21*
RU	86	Observed	29	57	
		Expected	27	59	
		Residual	2	-2	.22
PE	93	Observed	19	74	
		Expected	29	64	
		Residual	-10	10	5.01*

Note. RE = Reward Ethical; PU = Punish Unethical; RU = Reward Unethical;

PE = Punish Ethical.

* $p < .05$ ** $p < .01$

Table 11

Hierarchical Regression Analysis of In-Basket P score on Cognitive
Moral Development, Reinforcement Contingencies, and Interactions

Predictors	<u>B</u>	<u>SE B</u>	β	R^2	ΔR^2	ΔF
Step 1: Cognitive Moral Development						
(Constant)	50.89	1.98				
DITP	.22	.06	.17	.03	.03	12.99**
Step 2: Reinforcement Contingencies						
RE	1.51	2.19	.04			
PU	2.09	2.21	.06			
RU	-2.07	2.23	-.05			
PE	.90	2.19	.02	.04	.01	1.04
Step 3: Interactions						
DITP * RE	-.31	.18	-.27			
DITP * PU	-3.11E-02	.19	-.03			
DITP * RU	-5.22E-02	.19	-.04			
DITP * PE	-.37	.19	-.33	.05	.01	1.64

Note. N = 455. DIT = DIT P score. RE = Reward Ethical. PU = Punish Unethical.

RU = Reward Unethical. PE = Punish Ethical.

*p < .05 **p < .01

Table 12

Regression Analysis of In-Basket P score on Cognitive Moral

Development, by Condition

Condition	<u>n</u>	Means	(Constant)	<u>B</u>	<u>SE B</u>	β	R^2	F
Control	94	32.20	45.62	.37	.12	.30	.09	8.99**
Reward Ethical	93	30.31	56.65	6.02E-02	.12	.05	.00	.25
Punish Unethical	89	30.33	48.93	.33	.14	.25	.06	5.71*
Reward Unethical	86	29.91	45.45	.31	.14	.24	.06	5.02*
Punish Ethical	93	30.75	58.13	-5.70E-03	.16	.00	.00	.00

Note. RE = Reward Ethical; PU = Punish Unethical; RU = Reward Unethical;

PE = Punish Ethical.

* $p < .05$ ** $p < .01$

Table 13

Frequencies of Stages Selected as "Most Important" Consideration for
In-Basket Ethical Dilemmas

Stage	Kickback	Order Fulfillment	Product Component
1 (%)	132 (29)	22 (4.8)	13 (2.9)
2 (%)	4 (.9)	9 (2)	7 (1.5)
3 (%)	6 (1.3)	70 (15.4)	20 (4.4)
4 (%)	158 (34.7)	275 (60.4)	174 (38.2)
5 (%)	62 (13.6)	23 (5.1)	67 (14.7)
6 (%)	93 (20.4)	56 (12.3)	174 (38.2)

Note. N =455.

Figure 1. Kohlberg's Stages of Cognitive Moral Development (1981a)

Level 1: PRECONVENTIONAL

Stage 1: Punishment and Obedience Orientation

Stage 2: Instrumental Relativist Orientation

Level 2: CONVENTIONAL

Stage 3: Interpersonal Concordance or "Good Boy-Nice Girl" Orientation

Stage 4: Society Maintaining or "Law and Order" Orientation

Level 3: POSTCONVENTIONAL

Stage 5: Social Contract Orientation

Stage 6: Universal Ethical Principle Orientation

Figure 2. Trevino's Person-Situation Interactionist Model (1986)

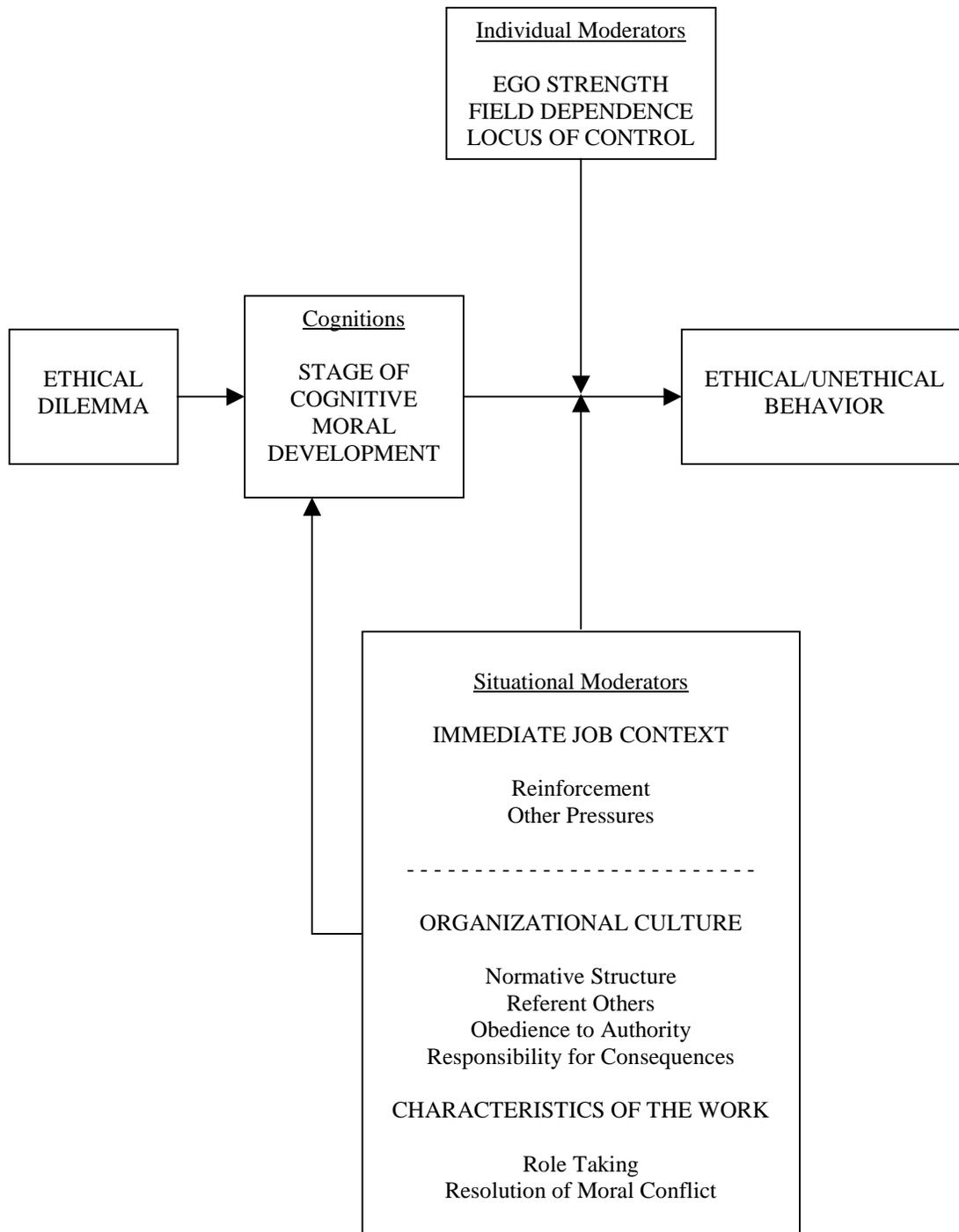


Figure 3. Stages of Cognitive Moral Development for In-Basket Considerations

Stage One

KB: Whether you might get fired if upper management found out that you allowed one of your employees to give kickbacks.

OF: Whether you might be reprimanded for fulfilling the order for less money.

PC: Whether Wyley could block your next promotion if you decide to go against his directive not to inform clients of the component change.

Stage Two

KB: Whether providing the kickbacks will help you get your yearly bonus because it helped your department reach budget.

OF: Whether you might get a bonus if your department's sales go up in the future because one company will place more business with Micrometer if you fulfill their order now.

PC: Whether Wyley will put in a good word with Sam Simpson on your behalf if you go along with his directive not to inform clients of the component change.

Stage Three

KB: Whether stopping the kickbacks would be cruel because it would force the buyer's children to have to drop out of school due to a lack of family finances.

OF: Whether a reputable company would fulfill orders based on a first come, first served basis.

PC: Whether team players generally support the directives of upper management.

Stage Four

KB: Whether Micrometer Electronics has a policy regarding client kickbacks.

OF: Whether Micrometer had a contract with Wright's client agreeing to fulfill their order first.

PC: Whether it is recognized standard industry practice to inform clients of component changes.

Stage Five

KB: Whether allowing the kickbacks to continue would benefit more people than stopping the kickbacks.

OF: Whether fulfilling one order rather than the other would be violating the rights of others.

PC: Whether telling your clients about the component change would protect anyone.

Stage Six

KB: Whether providing kickbacks to some clients is fair to all of Micrometer Electronics' clients.

OF: Whether fulfilling one order rather than the other is consistent with principles of justice.

PC: Whether being honest and up front about a component change is something that your clients should fairly expect.

KB = Kickbacks, OF = Order Fulfillment, PC = Product Component

Joan McMahon
13000C Foxridge Lane
Blacksburg, Virginia 24060
(540) 951-5379

EDUCATION:

M.S./Industrial Organizational Psychology, 2000

Thesis: "The Effects of Cognitive Moral Development and Reinforcement Contingencies on Ethical Decision Making"

Virginia Polytechnic Institute and State University, Blacksburg, VA

M.Ed./Early Childhood Education, 1992

Teacher's Certificate: NK – 4 (Virginia)

James Madison University, Harrisonburg, VA

B.A./Speech, 1976

State University of New York/ College at Oneonta, Oneonta, NY

PUBLICATION:

McMahon, J. (1999). What does it mean to be intelligent? In H.K. Chandler & J.W. Finney (Eds.), *Exploring Introductory Psychology: A Reader and Workbook* (pp. 159-160). New York: McGraw-Hill, Inc.

RESEARCH:

9/98 – 6/00 **Center for Research in Health Behavior, Virginia Tech/Graduate Research Assistant**

Assisted in the HIV prevention program for at-risk teens, funded by a grant from the National Institute of Mental Health. Recruited teen participants and their parents, conducted computer assessments, co-facilitated workshops, supervised teen health council activities.
Supervisor: Dr. Eileen Anderson.

ASSISTANTSHIPS:

8/97-Present **Department of Psychology, Virginia Tech/Graduate Teaching Assistant**

Taught ten Introductory Psychology recitation sections. Assisted Dr. Roseanne Foti in her undergraduate Industrial Organizational Psychology class, and Dr. Danny Axsom in his undergraduate Social Psychology and Advanced Social Psychology classes.

WORK EXPERIENCE:

1/96-8/97 **WTVR-TV, Richmond, VA/ National Sales Manager and Local Sales Manager**

As NSM acted as liaison between national rep firm and station in selling television time to national advertisers and their agencies to achieve \$8.2 million national revenue budget.

As LSM, facilitated the sales efforts of 8 local Account Executives towards a local revenue budget of \$7.3 million. Hired and trained personnel; analyzed and developed procedural systems.

3/95-9/95 **WXIN-TV, Indianapolis, IN/ National Sales Manager**

Duties similar to NSM position at WTVR-TV.

5/93-3/95 **WDEF-TV, Chattanooga, TN/ General Sales Manager**

Directed 13 person sales staff towards total station revenue budget of \$7.8 million. Developed budgets; priced and controlled inventory; developed marketing strategies, packages and materials. Negotiated national business.

3/89-8/90 **WCAU-TV, Philadelphia, PA/ Local Sales Manager**

Facilitated the sales/marketing efforts of 9 local Account Executives towards station revenue budget of \$63 million. Developed and implemented MBO bonus system; hired and trained personnel; conducted training program for support personnel.

11/87-3/89 **WCBD-TV, Charleston, SC/ General Sales Manager**

Directed sales/marketing efforts of 12 person sales staff towards station revenue budget of \$6.3 million. Negotiated national business.

12/84-11/87 **CBS NATIONAL SALES, Chicago, IL/ Account Executive**

Top ten biller in entire CTS system for '86-'87 NFL sales. Named an "Outstanding Media Saleswoman of the Year" by advertising agency executives, as reported by *Madison Avenue*, October 1986.

4/82-12/84 **PETRY TELEVISION, Chicago, IL/ Account Executive**

Represented eight major market television stations. Won WJLA-TV trip to the '84 Summer Olympics for 'exceptional contribution' to Olympics' sales effort.

8/81-4/82 **WISH-TV, Indianapolis, IN/ Account Executive**

3/79-8/81 **PETERS, GRIFFIN, WOODWARD, Chicago, IL and Dallas, TX/
Account Executive**

5/78-3/79 **J.WALTER THOMPSON, Dallas, TX/ Media Buyer**

8/76-5/78 **PETRY TELEVISION, New York, NY/ Group Manager's Assistant
and Sales Assistant**

PROFESSIONAL AFFILIATIONS:

American Psychological Association (Student Affiliate)

Society for Industrial/Organizational Psychology (Student Affiliate)

COMPUTER SKILLS: Word, Works, Excel, Powerpoint, SAS, SPSS, LISREL