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ETHICAL SENSITIVITY IN MANAGEMENT DECISIONS:  
DEVELOPING AND TESTING A PERCEPTUAL MEASURE  
AMONG MANAGEMENT AND PROFESSIONAL STUDENT  
GROUPS

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**ABSTRACT.** An emerging literature in behavioral ethics conceptualizes ethical perception or sensitivity as a critical part of the decision making process. This study appears to be the first to empirically test this concept in organization and management decision making. A measure of ethical sensitivity is developed and tested in a decision making exercise. Subjects for the study are 156 students from programs in business management, public administration, and engineering. The relationship of ethical sensitivity to decision outcome is assessed.

**KEY WORDS:** ethical decision making, ethical perception, ethical sensitivity, managerial ethics

INTRODUCTION

While ethical perception or sensitivity has been recognized as a critical factor in ethical decision making, there appear to be no studies that have attempted to develop empirical measures or study this critical variable in managerial decision making. The research reported here represents a modest and preliminary effort to address this gap. An assumption of this research is that recognizing a situation as an “ethical” one is the first, critical step in the process of ethical decision making. It is not reasonable to expect someone to engage in ethical deliberation, let alone act ethically, if the situation is not even perceived as an “ethical” one. In short, ethical *deliberation* implies ethical *detection*.

Conceptual models of ethical decision making have emerged in management (e.g. Trevino, 1986) and moral psychology (e.g. Rest, 1986). Some models have included ethical recognition or perception as a key element in the decision making process (e.g. Jones, 1991; Ferrell, Gresham and Fraedrich, 1989). Indeed, such moral recognition is thought to be an important component of business and management education. “Before a student can gain a better understanding of business ethics, he or she must learn to recognize moral issues” (Jones, 1989, p. 3). Empirical studies of



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ethical decision making have increased rapidly in the last two decades. Ford and Richardson (1994) summarize the individual and situational variables that are related to ethical decision making. While conceptual models identify ethical perception and ethical sensitivity as an important element in ethical decision making, Ford and Richardson include no empirical studies that explicitly test ethical sensitivity.

While there have been only a few efforts to measure ethical sensitivity, the research has been conducted in educational settings. The Dental Ethical Sensitivity Test (DEST) was developed by Bebeau (1986) as a teaching instrument to assist dental students in their awareness of ethical situations likely to be confronted in their professional work. Similar instruments have been developed for the education of physicians (Hebert et al., 1990) and counseling psychology (Volker, 1984). There appear to be no studies measuring ethical sensitivity in managerial decision making. A major objective of the research reported here is to design and test a measure of ethical perception and sensitivity in a context of managerial decision making.

Two other objectives should be noted. The first is to study students in different programs in order to examine possible sector differences in response to management problems. In particular, do business students respond differently from students in public management programs, and do students in a technical, professional management program (engineering) respond differently from the other two groups? If differences are found, this may have implications for designing program specific training instruments for developing ethical sensitivity in educational settings. The second, additional objective is to study student reactions to ethical situations without cueing or informing subjects that the situation is an "ethical" one. All the previous teaching instruments and research cited cues students. But, generally working managers will not be advised in advance of the ethical dimensions of problems. This research provides one model that might be used for in testing ethical sensitivity among students or working managers.

## BEHAVIORAL MODELS

### *Conceptual Models*

Several conceptual models have been proposed in the past few years for understanding ethical/unethical decision making in managerial and organizational contexts. Trevino's (1986) ground-breaking work proposed an interactionist model that viewed individual variables and situational

variables as moderating an individual's level of moral development in explaining ethical decision making. A group of researchers from Clarkson University (Bommer et al., 1987) proposed a model that makes explicit the importance of perception to the decision process and outcomes. Rest (1984, 1986) proposed a four-component model for understanding moral behavior, with the first component of his model being interpretation or perception of a situation. Ferrell, Gresham and Fraedrich (1989) proposed a "synthesis model" that specifically incorporates "awareness" and "perception" as the first step of the ethical decision making process. Jones (1991) identifies "moral intensity," or characteristics of the moral issue itself, as an important factor in decision making. Ethical perception is explicitly included, however, as the first element in the process of ethical decision making in the model.

### *Ethical Decision Process*

Figure 1 presents a general model of ethical decision making. It builds on the models of Rest, Trevino, and Jones. Following Rest this model assumes a cognitive process in explaining ethical decision making. The decision process includes elements in the inner box (ethical sensitivity, ethical judgment, and ethical choice). Following Trevino the model assumes both individual and environmental factors that affect the cognitive processes and decision outcomes. The model in Figure 1 is also consistent with the approach of Jones by assuming that recognition of the moral issue is clearly the first step in ethical decision making.

How is an "ethical" decision process different from any other decision making process? Any decision process would seem to involve (1) problem identification, (2) some form of problem solution or resolution (as a judgment or evaluation), (3) choice, and (4) actual behavior or implementation (Daft, 1989). These general categories mirror closely the four components of Rest and the model proposed here. Our approach does not differentiate decision making in terms of the formal processes, but rather as differences in content or the consideration of ethical values and principles. "Moral decision making is no exception [from other decision making]; the process begins with a problem, which includes a moral component" (Jones, 1991, p. 380). The moral components or dimensions make the ethical decision process an "ethical" one.

For example, a manager might confront the need to upgrade computer hardware. Problem awareness, definition, and diagnosis might include the specific needs of staff, the current gap between existing and state-of-the-art systems, and budget constraints. The decision process will involve analysis and choice, but to the extent that ethical values or principles are not a

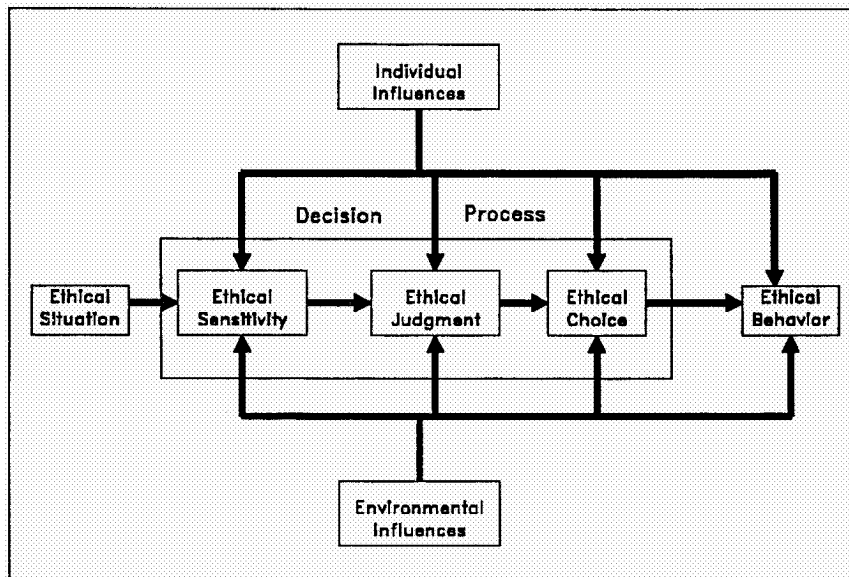


Figure 1. General behavioral model for ethical decision making.

consideration, the process would not be characterized as ethical. On the other hand, should a manager confront a hiring decision that involves pressure to hire a relative of a political ally (although clearly not the most qualified candidate), issues such as fairness equal opportunity may be relevant and hence make the situation an “ethical” one.

## ETHICAL PERCEPTION AND ETHICAL SENSITIVITY

### *Ethical Situations and Ethical Dimensions*

What is ethical perception and ethical sensitivity? A starting point might involve some understanding of ethical situations and features that make them “ethical.” Most maintain that an ethical situation also involves significant impact on the welfare of oneself and other humans (e.g. Velasquez, 1988; Barry, 1986); although some have extended that which has moral standing and should be considered to include animals (Singer, 1975; Regan, 1983) and even the physical environment (Commoner, 1971; Frankena, 1979; Blackstone, 1980). Jones (1991) adopts a broad conception of an ethical or moral situation, stating that “...the action or decision must have consequences for others and must involve choice, or volition ...” (p. 367).

However, choice and having an impact on others would not appear to distinguish ethical decision situations from nonethical decisions. Indeed, all everyday management decisions may affect others and involve choice. These conditions, then, may be necessary but not sufficient conditions. What may also define an ethical situation are the particular norms, standards or principles relevant in guiding decisions. These moral standards, values and principles would include fairness, honesty, justice, human dignity, and integrity, among others. Buchholz (1992) defines an ethical decision as "... a decision where questions of justice and rights are serious and relevant moral considerations" (p. 47).

In sum, for purposes of this research an "ethical situation" is taken to be essentially one in which "*ethical dimensions*" are relevant and deserve consideration in making some choice that will have significant impact on others. "Ethical dimensions" are those norms and principles that "provide the basic guidelines for determining how conflicts in human interests are to be settled and for optimizing mutual benefit of people living together in groups" (Rest, 1986, p. 1). In effect, this approach holds that ethical norms and principles are the rules of social cooperation, i.e. rules for community or social living.

#### *Ethical Perception/Sensitivity*

"Perception" may be defined as "a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment" (Robbins, 1992, p. 35). In terms of "ethical perception," then, individuals vary in giving *ethical* meaning to situations. Individuals will vary in terms of whether and to what extent they are aware of ethical dimensions of situations. Rest (1986) conceives of this perceptual component as "interpreting the situation" by using the imagination to consider the consequences of possible actions. "For the moral decision-making process to begin, a person must be able to recognize the moral issue. ... a person who fails to recognize a moral issue will fail to employ moral decision-making schemata and will make the decision according to other schemata, economic rationality, for example" (Jones, 1991, p. 380).

In this study, then, "**ethical perception**" is understood as the relative awareness or recognition of the "ethical dimensions" within an "ethical situation." For example, in considering whether to institute monitoring of employee electronic mail, individuals will vary in perceiving or seeing respect for the dignity of persons or a right to privacy as relevant in the situation.

While perceiving or recognizing the ethical or moral dimensions of situations, one might assign relatively little importance to the ethical

dimension, value or ethical principle. In this sense we might describe the individual as ethically insensitive. Thus, “**ethical sensitivity**” might be distinguished from ethical perception as the relative importance assigned to ethical dimensions or moral issues in particular situations.

#### *Ethical Perception and Related Management Research*

While there appear to be no specific studies that measure ethical sensitivity or perception among managers, there are related studies on perception and management, as well as efforts to link research in social psychology with managerial perception and judgment of ethical problems. Bartunek (1988) reported that unexpected cheating (counterfeiting currency) occurred among management students in a class exercise (playing the Organization Game). One of her findings, following a debriefing exercise after discovery of the cheating, was that those who engaged in the cheating did not generally describe the situation in ethical terms. They did not even seem to *see* the ethical features of the situation. While one should perhaps be skeptical of such post hoc evaluation, since such responses may have been defensive reactions on the part of those engaged in counterfeiting, the incident and analysis do at least raise a question as to the role of perception and sensitivity to ethical norms in managerial contexts.

In a survey of 33 private sector managers (Waters and Bird, 1987; Waters, Bird and Chant, 1986), managers who experienced organization and decision conflicts tended to resolve the conflicts, in part, by seeing unethical behavior as “ordinary practice” or by redefining the situations and issues into “amoral matters.” Such responses can be thought of as desensitization to the ethical issues in the situation.

## METHODS AND MEASURES

#### *Decision Making Exercise (an In-Basket Approach)*

A decision making exercise was constructed in which subjects assumed a managerial role and made decisions about a variety of tasks and problems, which managers might typically find in their in-basket upon arriving at work. The in-basket method has been used to gather data effectively and for ethical decision making in management (e.g. Laczniaak and Inderrieden, 1987; Trevino and Youngblood, 1990). This in-basket approach provided the vehicle for submerging an “ethical” problem into a larger set of tasks and as an unobtrusive way of collecting data about ethical perceptions and responses without cueing subjects as to the ethical aspects of the study.

Subjects were asked to participate in a “managerial decision making exercise.” They were instructed to sort through nine tasks, recommend a course of action for each item, and record their recommendations on a log sheet (in the sequence chosen by the subject). Upon completion of the log sheet, subjects were instructed to complete two other forms in an attempt to “better understand their decision making processes.” These responses provided the data for measuring ethical sensitivity, although subjects were not cued as to the ethical nature of the situations.

The nine in-basket tasks included phone messages, internal memos, and external correspondence. For purposes of the research reported here, the items consisted of one “ethical situation” and eight “fillers,” or items whose content and response were not relevant to the study of ethical perception. Another part of the study was an experiment that examined how the manipulation of “personalized information” might affect ethical perception and decision outcome (Wittmer, 1992).

### *The “Ethical” Situation*

An “ethical situation” was selected by consulting a team of faculty with expertise in management, moral philosophy, moral psychology, and political science. The situation was intended to rather clearly contain ethical issues without directly informing subjects that the situation was an “ethical” or “moral” one. Managers confront ethical situations every day, although seldom are the problems identified for them as ethical or moral ones. Responses depend, in part, on their perception of the situation.

The situation used in the study consists of a request for guidance in revising a bid proposal (see Appendix 1). The proposed bid revision is based on information about a competitor’s proposal, which had been “obtained” from one of the competitor’s previous employees. The memo contains a recommendation to undercut the competitor’s bid, using information from the competitor’s proposal. It may be interesting to note that after the selection of the ethical situation, a CEO of a major defense contractor used a similar example when discussing ethical issues faced in the industry, thus lending a degree of credibility to the ethical case. From an ethical point of view, the situation concerns norms and standards of fairness (in competitive practices), theft, dishonesty, and misrepresentation.

### *Subjects*

The larger study was, in part, comparative in nature. Subjects were drawn from several colleges and programs of study, with the main focus on management students. A total of 156 subjects were included in the study

(71 business administration, 52 public administration, and 33 engineering management students). The mean age of participants was 28.5 years, and the mean of work experience was 6.4 years. The sample consisted of 32.5% females; and 13.4% were foreign students. Of the students 70.7% were graduate students.

### *Conceptualizing a Measure for Ethical Sensitivity*

In organizational or managerial contexts, ethical perception and ethical sensitivity are important attributes because managers must consider the welfare of others, both inside and outside the organization. There are various stakeholders to be considered in most managerial decisions, and the effective manager is one who is able to balance those interests and groups. A manager must be able to see situations from the points of view of others, in effect, adopting various points of view on issues and problems.

In terms of managerial decision making, one way of conceptualizing the perceptual/sensitivity schema, when confronting decision situations, is along the following dimensions: personal, organizational, legal, and ethical. These points of view involve considering an expanding set of interests and consideration of increasingly *more* broad or universal norms and standards. For instance, a manager might perceive a situation *primarily* from a personal or self-interested point of view, viewing the alternative courses of action in terms of career advancement or job security. On the other hand, a decision maker might see the situation more in terms of the organization, emphasizing the resources or image of the organization. Yet, another perspective might be a legal point of view, seeing the situation in terms of compliance with the law or following rules and regulations of the larger community. Or one might perceive the situation as more of an issue dealing with ethical norms such as honesty, fairness or avoiding harm to others affected by the decision. These points of view are, of course, not mutually exclusive, but the idea is that individuals will vary in the relative emphasis or importance of such points of view.

This approach to ethical sensitivity is also consistent with moral development theory, which assumes that individuals will vary in their level of moral development by virtue of their “level of sociomoral perspective – the characteristic point of view from which the individual formulates moral judgments” (Colby and Kohlberg, 1987, p. 15). Each level of moral development is characterized by a different point of view or sociomoral perspective. In like manner, the theory of moral sensitivity offered here is grounded in differences in the sociomoral point of view adopted by decision makers and managers.



TABLE I  
Sociomoral perspectives, cognitive moral development theory, and ethical perception

Sociomoral perspectives	
Ethical perception	Moral development
Individual/personal	Stages 1 & 2 – Egocentric Individualistic
Organizational	Stage 3 – Point of view of others close to you
Legal	Stage 4 – Social system perspective
Ethical	Stages 5 & 6 – Moral point of view from which social systems derive

Table I shows a comparison of sociomoral perspective for cognitive moral development theory and the theory of ethical sensitivity offered here. In brief, Stages 1 and 2 of Kohlberg involve adopting a sociomoral perspective that is essentially egocentric and individualistic. Stage 3 for Kohlberg is characterized as loyalty to the group or living up to expectations of those “close to you.” Individuals using a Stage 4 perspective adopt a social, conventional perspective. Moral thinking focuses on the need to preserve the social (and legal) system. Finally, Stages 5 and 6 represent the “prior-to-society” perspective as presented by Colby and Kohlberg. The agent follows self-chosen rules, principles that form the basis of any particular social arrangement. Individual rights and achieving the good for all affected are important in this stage of moral development. As presented in Table I, these stages of moral development can be viewed as matched to the ethical perception or sensitivity categories used in this study.

*The Instruments*

Design of the measure of ethical sensitivity in this study draws on the previous studies discussed above. First, it appears to be the first test for managers, so it extends a test to another professional group. Second, it continues the use of cases or vignettes as an appropriate way of gauging ethical sensitivity. Third, it generally differs from previous efforts by embedding the “ethical case” in a larger decision making framework, since ethical situations more typically occur as part of numerous decisions made

on a daily basis. Fourth, the approach generally differs from previous studies in that subjects are not informed of the ethical purpose of the study at the outset of the exercise.

Two instruments were used to capture differences in ethical perception of an ethical situation that was embedded in an in-basket decision making exercise. Because of the exploratory nature of the inquiry, both an open-ended question and a structured instrument were used to assess subjects' perceptions and responses.

To measure the relative importance of the four perspectives or points of view, the Ethical Sensitivity Test (EST) was developed. Using the format of Rest's Defining Issues Test (DIT) twelve items were presented, and subjects were asked first to *rate* the importance of each on a five point scale (see Appendix 2). Subjects were then asked to rank the three most important and three least important items from the list of twelve. Their ratings become an aid in selecting the highest and lowest ranked items, similar again to the process used in Rest's DIT instrument.

The twelve items of the Ethical Sensitivity Test (EST) were constructed to include three items for each of the four perspectives. The ORGANIZATIONAL items included organizational REVENUES, employee JOBS, and IMAGE and reputation of the organization (items 1,5,8). PERSONAL or self-interested items included personal REPUTATION, CAREER advancement, and personal job SECURITY (items 3, 6, 11). LEGAL items included COMPLIANCE with the law, following REGULATIONS, and legal LIABILITY (items 2, 9, 12). ETHICAL items included HONESTY with clients, community HARM, and FAIRNESS (items 4, 7, 10). The items of EST were randomly ordered.

The second measure was an open-ended question as to why the subjects recommended the course of action for the ethical decision item and one other filler item. This instrument preceded the structured measure, and it was intended to function both as a reliability check on responses to the structured measure and as a way of gathering information about other perceptual categories beyond the twelve included in the structured list. In order to avoid response bias on the open ended instrument, subjects were simply instructed that the information was requested to "better understand their decision making process." As a further mechanism to avoid response bias, two situations (rather than only the ethics issue) were used and the item code was written in pencil, suggestive that not all subjects were assessing the same decisions. Again, subjects were not cued to identify ethical aspects of the item.

TABLE II  
Factor loadings for ethical sensitivity test (EST) items

Item	Factor 1	Factor 2	Factor 3	Factor 4
IMAGE	0.434	0.310	0.082	−0.195
REVENUES	−0.349	−0.092	0.0139	0.360
JOBS	−0.044	0.031	0.075	0.519
HONESTY	0.902	0.252	0.044	0.108
FAIRNESS	0.718	0.175	−0.001	−0.112
HARM	0.305	0.364	0.351	0.403
COMPLIANCE	0.261	0.744	0.130	0.070
REGULATION	0.076	0.259	0.063	−0.150
LIABILITY	0.223	0.883	0.143	0.179
REPUTATION	0.151	0.191	0.221	0.007
CAREER	−0.070	0.028	0.852	0.051
SECURITY	0.002	0.883	0.7156	0.183
Proportion	60.4%	23.0%	13.1%	3.5%

Final communality estimate: 5.97  
Maximum likelihood method – Varimax rotation

RESULTS

*Factor Analysis*

Confirmatory factor analysis was used to test responses to the twelve items in relation to the four theoretical dimensions constructed. Both the principal factor analysis, computationally the most efficient (SAS User’s Guide: Statistics, 1985) and principal components analysis yielded similar results. The results of the maximum likelihood method (varimax rotation) are presented in Table II, with four factors being retained. These results are generally consistent with the originally conceived dimensions, although the maximum likelihood method assumes normality and imposes a four factor solution.

Generally items with loadings less than 0.3 were disregarded. Two of the ethics items, HONESTY and FAIRNESS, show large positive loadings in Factor 1, with one of the organizational items (IMAGE) having the next highest loading. Factor 2 loads most heavily on two of the legal items, COMPLIANCE and LIABILITY. One of the theorized personal items, personal job security (SECURITY), also has a high loading, being weighted as the same with LIABILITY. Factor 3 has the highest loadings

on CAREER and SECURITY, indicating the factor most consistent with the items conceived of as personal or egoistic. The highest loading items for Factor 4 are JOBS, HARM, REVENUES although none of the items have particularly high loadings.

Generally the factor analysis tends to support the *a priori* conceived categories, although results were not clean and unambiguous. Two of three items for each of the hypothesized dimensions were the highest loading items in the factor analysis. While tending to support the hypothesized dimensions, future research employing this approach might drop the most ambiguous items and possibly add other items. Because of the preliminary nature of the research, the individual items, rather than factor scores, were used in other statistical analysis.

### *Ranking Scale*

The relative importance of the items, and thereby the perceptual orientation or sensitivity of the subjects, was assessed from item rankings assigned by the subjects. After rating the items, subjects were asked to rank the three most important and three least important items from the list of 12 rated items. As seen in Table III subjects saw the situation primarily from an *organizational point of view*, with over 60% of subjects from all three groups selecting one of the organizational items as most important. The single item selected most commonly by each educational group was organizational resources and revenues (REVENUES). Over one-third of subjects selected this item as most important. When forced to prioritize, all groups saw the financial position of the organization as most important. Assigned a managerial role in the decision making exercise, individuals perceived the situation "first and foremost" from an organizational perspective and were most sensitive to protecting the organization's resources.

*Ethical factors* were ranked as the *second most important* dimension for all groups. Approximately one-fourth of public management and engineering students selected an ETHICAL item as most important, while 16.2% of business management students saw an ethical item as most important. A larger percentage of business students saw the case primarily in LEGAL or PERSONAL terms, with 11% of business management students selecting a legal item and 11% selecting a personal item as most important. Thus analysis of the "most important" item indicates the primacy of an organizational perspective for all educational groups, with business students perceiving the situation somewhat less in organizational or ethical terms and more in legal and personal terms.

TABLE III

Ethical perception: By education program, percentage for item ranked most important

Item	PA (n = 49)	ENG (n = 69)	BA (n = 31)
IMAGE	15.7	23.4	10.2
REVENUES	37.3	30.0	39.7
JOBS	<u>9.6</u>	<u>13.3</u>	<u>10.4</u>
ORGANIZATIONAL	62.6%	66.7%	60.3%
HONESTY	19.6	13.3	10.3
FAIRNESS	5.9	10.0	4.4
HARM	<u>2.0</u>	<u>3.3</u>	<u>1.5</u>
ETHICAL	27.5%	26.6%	16.2%
COMPLIANCE	5.9	0	7.4
REGULATIONS	0	0	0
LIABILITY	<u>0</u>	<u>6.7</u>	<u>4.4</u>
LEGAL	5.9%	6.7%	11.8%
REPUTATION	2.0	0	2.9
CAREER	2.0	0	5.9
SECURITY	<u>0</u>	<u>0</u>	<u>2.9</u>
PERSONAL	4.0%	0%	11.7%

*Weighted and Aggregated Rankings*

While revealing, reliance on a single item (i.e. the item ranked most important) may ignore other important levels of ethical sensitivity among subjects. Besides the item perceived (ranked) as *most* important, individuals may vary in the number and position of ethical items as they are given consideration in the decision making process. For example, while not selecting an ethical item as *most important*, a subject might still be relatively sensitive to ethical factors by selecting an ethical item as second and/or third most important. In so doing a subject evidences relative sensitivity to ethical issues, while not identifying an ethical item as most important. Thus subjects were asked to rank (in order) the three most important items and the three least important “factors in terms of [their] perception of the situation and the influence on [their] decision.” To capture these differences in sensitivity, several measures were constructed from subjects’ responses for the most and least important items.

TABLE IV  
Ethical sensitivity score: By education group

Ethical sensitivity (1)	PA (n = 48)		ENG (n = 30)		BA (n = 66)	
	#	(%)	#	(%)	#	(%)
0 (least)	18	(37.5)	10	(33.0)	31	(47.0)
1	16	(33.3)	10	(33.3)	20	(30.3)
2	14	(29.2)	10	(33.3)	14	(29.2)
3 (most)	0		0		1	(1.5)

*Ethical sensitivity 1.* The top three ranked items were aggregated on the basis of whether an ethical item was selected. Each of the three most important ranked items was recoded as a dichotomous variable. The binary variable was scored 1 if *any* of the three ethical items (honesty, fairness, community harm) was selected; otherwise 0. The second and third ranked items were coded similarly, and the scores for the three most important items were summed to create Ethical Sensitivity 1, a variable capturing the total number of ethical items ranked among the top three in importance. Values ranged from 0 to 3. At the extremes, a score of 0 means that no ethical items were selected among the three most important factors in the situation, while a score of 3 means that all three possible ethical features were seen among the three most important items.

As seen in Table IV, the distribution of scores by education group shows the majority of subjects in each group selecting at least one ethical factor among the top three ranked items (adding the rows with scores of 1,2, or 3 for each column): 62.5% of the PA students, 53% of BA students, and 66.6% of the engineering students. On the other hand, this leaves a substantial number of subjects (40.9% overall) who were *not sensitive to any ethical factor* as one of the top three factors in the “ethical” case. How one interprets this finding may be rather like the proverbial glass that is half-full or half-empty. However, since the in-basket case was constructed as an “ethical situation,” one might expect that nearly all subjects would see at least one of the three most important features as ethical.

*Ethical sensitivity 2.* Another individual score of ethical sensitivity was constructed, taking into account relative position in the ranking scheme of the three least important items, as well as the three most important items. The logic of this measure of ethical sensitivity is that one may be relatively ethically *insensitive* as well as *sensitive* to the ethical issues in situations. For example, given that there were twelve items to rank, the fact

TABLE V  
Ethical sensitivity: Ethical sensitivity 2 (*n* = 142)

Score	Frequency	Percentage (%)
0	0	0
1	2	1.4
2	0	0
3	9	6.3
4	20	14.1
5	13	9.2
6	28	19.7
7	20	14.1
8	12	8.5
9	18	12.7
10	11	7.7
11	8	5.6
12	1	0.7

*M* = 6.69; *SD* = 2.38

that a subject considers honesty and fairness least important may provide insight into the degree of ethical insensitivity, especially in a situation designed as “ethical.” One might argue that the least important items do not add anything significantly to the sensitivity measure, since they function essentially as residual responses. That is, individuals may only be filling in blanks without any particular seriousness or significance when it comes to the least important elements. However, since there was a total of twelve items from which to select, choices for the *least* important items may reveal more about the individual’s relative perception or insensitivity.

A weighting scheme was used, weighting the least important item 3, the second least important item 2, and the third least important item 1, similar to the weighting for the most important items selected. This constructed variable, Ethical Sensitivity 2, ranging from 0 (no ethical items selected among the three most important and all three ethical factors selected for the three least important), to 12 (all three ethical factors selected for the most important items and none of the ethical factors selected among the three least important). The resulting distribution is seen in Table V.

### *Reliability and Validity*

Since subjects were available only for the one sitting, no test-retest measure of reliability was possible. Nor, because of the nature of the items, was a split-half test of reliability thought to be appropriate. However, subjects were asked to respond in an open-ended format as to why they recommended the decision. These open-ended responses were coded using the same general categories from the EST. An analysis was done of the coded response and the item identified on the EST as the most important item in their perception of the situation. The analysis showed that 70.2% of responses were consistent among the four categories, thus providing one measure of internal consistency or reliability.

Construct validity is “the degree to which a measurement device accurately measures the theoretical construct it is designed to measure” (Cozby, Worden and Kee, 1989, p. 248). The EST was designed to capture relative differences in the importance of certain ethical issues. Since ethical issues (fairness, honesty, and community harm) were specified along with various nonethical issues, the EST functioned as a recognition measure. Individual variation was found, as seen in Table V (Ethical Sensitivity 2 having a range of 1–12,  $M = 6.69$ ,  $SD = 2.38$ ). Moreover, in terms of criterion-related validity, the EST measure was a significantly correlated and predictive variable of decision outcome, which will be discussed further in the next section.

### *Ethical Sensitivity and Decision Outcome*

What is the relation of ethical sensitivity and the recommended decision? If it is possible to capture individual differences in ethical perception and sensitivity, a next step is to determine the relationship of such sensitivity to decision outcomes and behavior.

The decision outcome for the ethical case in this study was an open-ended recommendation, as recorded on the log sheet used by subjects for all nine decision items. Three categories were conceived for coding purposes: (1) to accept the recommendation to revise the proposal using information from the competitor’s proposal, (2) to reject the recommendation, or (3) to adopt a noncommittal, middle ground. Two individuals coded the decision item, achieving inter-rater reliability of 0.89.

One test of the relation of ethical perception and decision outcomes is seen in Table VI. A cross-tabulation of ethical perception and ethical decision is presented, using Ethical Sensitivity 1 (the number of ethical factors selected among the three most important items identified). A chi-square test confirms that it is highly unlikely ( $p = 0.002$ ) that decision is independent of ethical perception. Moreover, using Kendall’s tau-b statistic



TABLE VI  
Ethical sensitivity and decision outcome

Decision	Ethical sensitivity (1)		
	0 (least)	1	2 (most)
Adopt	36	16	11
Uncommitted	13	13	8
Reject	10	16	21

Chi-square (df = 6) = 21.16;  $p = 0.002$ ; Kendall's Tau-b = 0.30

to calculate the strength of these ordinal level variables, the strength of the association was found to be 0.30.

As seen in Table VI, those subjects recommending to adopt the bid undercutting strategy were also more likely to perceive the fewest ethical factors among the most important ranked items. On the other hand, those recommending to reject the bid undercutting proposal perceived more ethical items among the most important ranked items. For example, of those recommending to reject the proposal, 10 subjects selected 0 ethical items among the three most important and 21 subjects selected 2 or 3 ethical factors. This pattern is reversed for those recommending to adopt the undercutting strategy, with 36 subjects identifying 0 ethical factors and only 11 subjects selecting 2 or 3 ethical factors.

However, it is important to observe that some individuals were high on ethical sensitivity while recommending to follow the undercutting strategy, while others scored relatively low on ethical sensitivity and chose to recommend rejecting the undercutting strategy. How are these findings to be explained? Put differently, why is there only a modest relationship (Tau-b = 0.30) between sensitivity and decision?

For those individuals who scored low on ethical perception but recommended the ethical action, this may indicate a prudent (rather than purely ethical) perspective. While not seeing ethical factors prominently, these subjects may reject using a competitor's proposal, seeing the situation in other terms (e.g. organizational image or legal concern). On the other hand, some individuals scored relatively high on perception but chose the least ethical course of action. These individuals, while recognizing the ethical features, may have adopted a more short-term perspective, opting for using the information to protect resources of the organization. There may be recognition of the ethical factors (and presumably the ethical standards), but short-term organizational good or self-interest may override applicable ethical principles of fairness and honesty.

In terms of the modest correlation (.30) between sensitivity and decision, the strength of the relationship is consistent with reports of similar relationships between cognitive moral components and behavior. Blasi's (1980) review of studies relating moral judgment and behavior concluded that typically moral judgment and behavior are correlated moderately ( $r = 0.3$ ). In his review of 30 studies Thoma (1985) reported similar relationships between the DIT and behavioral measures. Bebeau (1986) reported moderate correlations (0.2–0.5) between her measure of ethical sensitivity and moral judgment. Thus the moderate correlation ( $r = 0.3$ ) found between ethical sensitivity and decision is similar to these findings.

Certainly other factors or variables should be considered in explaining differences in decision outcome. For example, age and experience may be related to the recommended action. In the reported research on the experimental aspects of this study (Wittmer, 1992), other variables were tested in a logit analysis. Rest's measure of moral development and locus of control were not found to be statistically significant, but age was a significant correlate such that older subjects were more likely to choose the more "ethical" response. Nevertheless, while controlling for age, ethical sensitivity remained the most powerful predictor of choice or decision.

Finally, it is interesting to note that of 156 subjects only about five individuals expressed a clear ethical condemnation of the proposal. In the open-ended response these individuals clearly condemned the acquisition and use of the competitor's proposal on ethical grounds. Some indicated that the employee or employees responsible should be sanctioned. These few cases stood in stark contrast to the other responses. In some respects it may be troubling that so few subjects responded clearly and unequivocally about the unethical behavior.

## DISCUSSION, CAVEATS, AND FUTURE RESEARCH

One of the primary objectives of this project was to construct and test an instrument for measuring ethical sensitivity in a managerial context among management students. Previous tests of ethical sensitivity have cued subjects and generally used a constructivist procedure to study ethical sensitivity. That is, subjects are asked to generate what they perceive to be the ethical aspects of situation. The Ethical Sensitivity Test (EST) developed and tested here did not cue subjects and provided a recognition instrument, similar to Rest's DIT. The advantage of the instrument used in this study is that it measures relative importance of different values, and it does so in a rather unobtrusive manner. It elicits perceptions of situations

or problems without alerting subjects to any ethical aspects of the problem. This seems especially important since ethical decisions commonly occur without managers being alerted to ethical aspects of the situation.

This kind of instrument and approach could be used in educational and training settings. Teaching management ethics involves, in part, increasing students' awareness (sensitivity) of ethical aspects of problems and increasing analytical abilities in resolving ethical problems. The approach developed here might be used as a pretest for students entering a program of study or a particular class. The perceptual categories (self, organizational, legal, ethical) might be used in assessing cases throughout a course. Such an instrument could also be used in workshops or training sessions to assess differences and introduce the framework as a way of assessing issues. While the particular ethical case used in this study was especially designed to cut across various types of management programs, the particular cases could be tailored to the program of management, e.g. business management versus public administration programs.

#### *Caveats and Questions*

Does the EST measure capture "ethical sensitivity?" To what extent does the measure represent a generalized measure, or is it specific to the particular case or situation presented? Responses to the EST may have been based on (1) the specific context and information provided about the situation, (2) the perceived role definition, or (3) some more general personal value structure or orientation of the subjects. The degree to which the measure is context specific is unclear, since only one case was assessed. Future research might build on this study by following the Rest DIT model, employing several different decision scenarios or cases.

Another issue of validity concerns the relative balance of information in the cases, as related to the four dimensions (personal, organizational, legal, and ethical). Subjects may have been responding to the relative amount of information provided about each of these four perspectives, and a more valid measure might be constructed that includes a better balance of information. Since only a simulation, perhaps individuals saw nothing personally at stake in the situation. Thus to improve the validity of the measure, it might be useful to build more information about the personal stakes to the decision maker, yielding more realistic measures of relative preference and sensitivity.

The fact that individuals did *not* rate or rank personal items higher raises a host of other intriguing questions and issues. To what extent do individuals subjugate their personal interests to organizational and even ethical values in determining appropriate managerial decisions? Common

wisdom would seem to be that often individuals pursue their self-interest at the expense of organizational good, legal duties, or ethical standards. Are these results more a function of the artificial character of the experiment and the fact that subjects have nothing personal at stake in the exercise? If subjects did respond more to information and contextual factors, does this not underscore the importance of complete and relevant information in decision situations?

Another validity issue relates to Rest's four components of moral psychology and behavior, which has figured prominently in the design of the general model and the sensitivity instrument in this study. A question can be raised about whether the EST is capturing the third component of the decision process (value selection), rather than the first component (perception, sensitivity, and interpretation). Rest describes the third component as a person giving "priority to moral values over other personal values" (Rest, 1986, p. 3). It may be that ranking the aspects important in the situation may reflect value ordering in the *selection* or decision as much as one's *perception*. Still, the fact that subjects were asked about the relative importance of different factors in their "perception of the situation" lends credibility that EST is a perceptual and not selection measure.

Another important caveat relates to the generalizability of this measure of ethical sensitivity. The instrument was developed and tested as a pilot measure. It represents subjects' responses to one specific case, and hence should not be thought of as a general personality trait or characteristic. Further testing across various kinds of cases and situations would be required before it could be thought of as capturing a more general trait, if indeed there is any such *general* trait. One of the next steps in a future research agenda might be to survey practicing managers for typical ethical dilemmas they face and then use the EST with these situations and dilemmas.

#### *Future Research and Use of the Findings*

Where might this kind of research proceed, and how might the results of such research be used? First, and perhaps foremost, assessment and education tools could be developed and used to increase the sensitivity of managers to the ethical aspects of situations. This is currently being done in the dental profession (Bebeau, Rest and Yamoore, 1985), and the general approach could be extended to the field of management. Cases in management ethics education are used often to help students identify the ethical dimensions of decision making situations, followed by the use of analytical frameworks to deal effectively with the situation. In effect,

such approaches are developing skills and capacities related to ethical perception and sensitivity. Perhaps more systematic and empirically based approaches, such as the one studied here, could be designed to accomplish the goal of sensitizing students to ethical issues.

Second, another related research task could be to survey practicing managers in terms of typical ethical situations they confront. Cases could then be constructed, identifying the particular ethical issues and embedding those issues in assessment and teaching tools that would have even more credibility and validity to management situations.

Third, the instrument developed here requires much further work in terms of testing and refining the cases and items so as to meet more acceptable standards of reliability and validity. The approach that perhaps makes the most sense in this regard might be to follow the Rest DIT format, creating several cases and related items, which would result in a general ethical sensitivity score, perhaps analogous to the PSCORE from the DIT.

Another area of follow-up concerns the observed public/private differences in level of moral development. Well-chosen matched samples could be selected for further testing. If the differences observed here are found in such samples, a more developed theory to account for such public/private differences would be needed.

While the EST was constructed as a recognition test, it would also seem appropriate and useful to explore more constructivist approaches to ethical sensitivity in management. One could approach this by either cueing subjects by asking them to identify the ethical aspects of situations, or by simply presenting situations and asking for their perceptions of the important elements in the situations. These approaches could be employed both to study the general sensitivity of management populations and as a pedagogical tool for ethics training.

Finally, it is hoped that this research has provided some evidence (even if limited) for the importance, legitimacy, and usefulness of empirical and behavioral approaches for studying ethics in managerial decision making. It is hoped that other creative experimental designs might be developed to test the behavioral models that have emerged recently in the field of management.

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I would like to acknowledge the significant influence of James Rest, who passed away in the past year. While I did not know Professor Rest, his intellectual influence on my research is significant. Whatever contributions we make to the advancement of knowledge is on the shoulders of those who preceed us.

## APPENDIX 1

Item: REC

RESEARCH, POLICY, AND MANAGEMENT, INC.

*409 Clear View Lane  
Stillwater, Rhode Island*

## MEMORANDUM

To: V.P. for Research Projects

From: Gloria Simon, Director, Social Sciences

Re: Education Evaluation Proposal

My unit has been sketching out a proposal for the Regional Education Consortium (REC) to evaluate technical training programs for 55 school districts represented by the Consortium.

As you know, the division could certainly use the funding since latest projections show our operating budget in the red. We will have to lay off several researchers unless we can generate new sources of revenue. Moreover, we have been close to receiving a contract with REC several times, and the potential for future grants is good, once we get our foot in REC's door.

Our proposal called for simple process and impact evaluations: monitoring the programs, assessing client satisfaction, analyzing outcomes, and providing a few case studies. Last week you reviewed and approved the proposal and budget.

We now think we can make our proposal even more competitive, since we recently obtained a copy of the proposal submitted to REC by one of our major competitors, Knowledge Research Associates (KRA). We acquired the proposal from one of their previous employees. KRA staff have been working hard on the proposal. The KRA Research Director (Jack Peters) and his staff have always treated us fairly and decently, and they even helped us gather information we needed for the Social Services grant application. Apparently several KRA staff will be laid off, if KRA does not get the contract with REC.

But I need a little guidance since our proposed changes would deviate from the proposal you approved and would involve doing more for less funding. The KRA proposal actually provides for more tasks and deliverables with a budget lower than ours. So it seems to me that we ought to come in about 5–10% under their proposal while at the same time promising more services and deliverables.

Such strategy will make our proposal more competitive, but it will reduce our margin of profit by about 10% while requiring more work. Does this tradeoff seem worthwhile?

How would you like us to proceed?

APPENDIX 2

Item \_\_\_\_\_

Refer back to the item and your recommended course of action, if necessary. Then indicate the importance you would assign to each of the following factors in terms of your perception of the situation and the influence on your decision. Please check one box for each of the factors listed.

	Very little	Little	Some	Much	Great
1. Organization revenues and resources					
2. Compliance with the law					
3. Personal reputation in organization					
4. Honesty with clients and public					
5. Protecting jobs of employees					
6. Career advancement					
7. Protecting the community from harm					
8. Image and reputation of organization					
9. Following established guidelines and regulations					
10. Fairness in dealings with others					
11. Personal job security					
12. Avoiding legal liability					

From the list above, select the three most important and the three least important factors (by writing the item number from the list above).

Most important \_\_\_\_\_

Least important \_\_\_\_\_

Second most important \_\_\_\_\_

Second least important \_\_\_\_\_

Third most important \_\_\_\_\_

Third least important \_\_\_\_\_

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