The Role of Moral Intensity in Ethical Decision Making

A Review and Investigation of Moral Recognition, Evaluation, and Intention

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An empirical investigation found that the dimensions of moral intensity were related to the recognition of moral issues, moral evaluations (i.e., utilitarian, deontological, procedural, and distributive justice), and moral intentions. Consistent with the ethical decision-making framework presented, findings also revealed that (a) the moral intensity–moral evaluation relation was partially mediated by moral recognition for distributive justice and utilitarian evaluations, (b) the moral recognition–moral intention relation was fully mediated by distributive justice and utilitarian evaluations, and (c) the moral intensity–moral intention relation was partially mediated by the combination of moral recognition and each of the moral evaluation processes.

Concern for ethics in organizations has been growing over the past few years as reports of unethical practices abound. Ethical concerns exist in such diverse areas as workplace safety (Fusilier, Aby, Worley, & Elliott, 1996; Stewart, Ledgerwood, & May, 1996), workplace privacy (Schulman, 1998), and employee recruitment (Cole, 1999). Researchers in business schools have responded to this growing societal concern by introducing courses in ethics and by developing a plethora of models to

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better understand individuals' ethical decision-making processes (e.g., Dubinsky & Loken, 1989; Ferrell & Gresham, 1985; Hunt & Vitell, 1986; Jones, 1991; Rest, 1986; Trevino, 1986). However, a recent review of the empirical literature on ethical decision making noted that there is surprisingly little empirical research directed toward testing such theories (Ford & Richardson, 1994). Indeed, Randall and Gibson's (1990) methodological review of the ethics field found that 64% of articles had no theory development at all. The purpose of this study is to address the need for more theory-testing empirical work by examining how Jones's (1991) construct of moral intensity may influence the first three stages of the ethical decision-making process. Each of these stages is outlined below, and the extant literature linking moral intensity to each stage is reviewed and hypotheses are developed.

Ethical Decision Making

As noted above, a number of theoretical frameworks that represent the ethical decision-making process in organizations exist. Jones (1991) presented a synthesized model of these ethical decision-making frameworks organized around the four stages of Rest's (1986) fundamental ethical decision-making process. These four stages include: (a) moral issue recognition, (b) moral evaluation/judgment; (c) moral intention, and (d) moral behavior. Each of these stages is discussed in more detail below; the theoretical framework presented here will focus on the first three stages.

Moral issue recognition. According to Jones's (1991) synthesized decision-making model, ethical dilemmas first emerge from the environment and then are recognized as moral issues (Ferrell, Gresham, & Fraedrich, 1989; Hunt & Vitell, 1986; Rest, 1986). Jones (1991) used cognitive psychology literature to suggest that recognition of moral issues is due to their salience and vividness. Issues with these traits tend to dominate our attention as they elicit more information from our memories and capture our emotional interest (Nisbett & Ross, 1980). Furthermore, Gautschi and Jones (1998) maintained that repeated exposure to moral issues enhances moral issue schema development that, in turn, facilitates the recognition of moral issues.

Moral evaluation/judgment. After recognition of the moral issue, individuals are theorized to pass into a moral judgment or evaluation stage. In previous models, this stage has involved individuals' level of cognitive moral development (e.g., Rest, 1986; Trevino, 1986) and/or the role of

moral evaluation (i.e., teleological and deontological evaluations) (e.g., Ferrell et al., 1989; Hunt & Vitell, 1986). Jones's (1991) synthesized model focused on the level of moral reasoning as has much of the empirical literature (e.g., Trevino & Youngblood, 1990; Weber, 1990, 1996). However, the moral evaluation process outlined in the frameworks advocated by Hunt and Vitell (1986) and Ferrell et al. (1989) has received little attention in the empirical research despite the extensive discussion of the role such evaluations play in ethical decision making. This research fills this need in the extant literature by examining four distinct moral evaluation processes individuals may use and, hence, deviates from Jones's (1991) original formulation of his ethical decision-making model.

Hunt and Vitell (1986) postulated that individuals use both deontological and teleological evaluations to make their ethical judgments. Similarly, Brady (1985) has suggested that the two types of evaluations are complementary rather than antagonistic or mutually exclusive from one another. Deontological evaluations involve examining the inherent rightness or wrongness of behaviors based on personal values or rules of behaviors. Deontologists consider what moral obligations, duties, and/or rights are present in a situation to determine the proper moral action (Cavanagh, Moberg, & Velasquez, 1981; De George, 1999). Organizational research on rights has ranged from the exploration of employees' property rights in jobs (Gordon & Lee, 1990) to how organizational characteristics affect human resource management policies on rights (Schwoerer, May, & Rosen, 1995).

Alternatively, teleological evaluations involve an analysis of the desirability and probability of the consequences involved in an ethical situation. Utilitarianism falls under the teleological philosophies and operates from the principle that one should choose the alternative that offers the greatest good for the greatest number (Ferrell et al., 1989).

An initial empirical test of a core portion of Hunt and Vitell's (1986) theory of marketing ethics was conducted by Mayo and Marks (1990). These authors found that ethical judgments were jointly determined by both deontological and teleological evaluations, although Hunt (1990) outlined some methodological issues in Mayo and Marks's study that may limit the conclusions that can be drawn from their research. Nevertheless, Vitell and Hunt (1990), in a partial test of their own theory, also found that "decision makers do tend to depend upon both deontological and teleological factors when making ethical judgments" (p. 260).

In addition to the utility of an action and the rights and duties involved, justice is considered by many moral philosophers to be one of the fundamental moral considerations of an action (e.g., Kant, 1965; Rawls, 1971; Velasquez, 1988). In the organizational behavior literature, justice is often

divided into procedural and distributive justice constructs (Deutsch, 1985; Lind & Tyler, 1988). Procedural justice is concerned with the fairness of the process by which allocation decisions are made, whereas distributive justice is focused on the distribution of outcomes themselves (Schminke, Ambrose, & Noel, 1997). Recent organizational research has demonstrated that procedural justice can have a significant impact on employees' reactions to negative outcomes, such as economic hardship caused by pay freezes (Schaubroeck, May, & Brown, 1994). Procedural and distributive justice perceptions may also influence one another, and individuals may even use outcomes themselves as indicators of procedural fairness (Lind & Lissak, 1985; Lind & Tyler, 1988).

Within the ethics literature, Singer (1996) found that perceived fairness of an issue is a significant factor in predicting moral judgment. Singer and Singer (1997) also found that an individual's scope of justice (i.e., the extent to which an individual extends his or her justice concerns to another person) was related to a person's overall ethicality rating of an issue. Furthermore, scope of justice interacted with the consequence of harm to the target person in predicting the overall ethicality of the action.

Recent research has attempted to measure the extent to which individuals use one form of moral reasoning or another. For example, Premeaux and Mondy (1993) and Fritzsche and Becker (1984) have examined the relation between ethical philosophy (i.e., utilitarian, rights, and justice) and management behavior. Both sets of authors found that the rationale used by managers was predominately utilitarian, followed by a rights-based approach and then a justice perspective. Other research has been aimed at developing adequate measures of individuals' moral evaluations based on the pluralistic moral philosophy literature (Hansen, 1992; Reidenbach & Robin, 1988, 1990, 1993). Still others claim that individuals have ethical predispositions (Brady & Wheeler, 1996; Schminke et al., 1997), although such researchers note that individuals may use more than one philosophical framework to make a single ethical judgment.

Moral intention and behavior. The moral evaluation process is theorized to lead to the establishment of a moral intention by the moral agent (Hunt & Vitell, 1986; Rest, 1986). This moral intention is thought to subsequently lead to actual moral behavior (Ferrell & Gresham, 1985; Trevino, 1986) because intentions are the best (although not always good) predictors of individuals' subsequent behaviors in the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975). Recent work in the environmental arena has demonstrated that intentions significantly predicted behaviors in both a household composting study (Taylor & Todd, 1997) and in a household recycling study (Boldero, 1995). Other recent research has tied

state legislators' intentions to their voting behaviors on tobacco control legislation (Flynn et al., 1997). Past behavior has also been strongly linked to future intentions in the TRA model (Leone, Perugini, & Ercolani, 1999), although recent work by Weber and Gillespie (1998) suggests that this linkage may not be as strong when examining ethical intentions in a cheating reporting context. Weber and Gillespie also found that intentions phrased in a "would report" manner were associated with a higher moral reasoning stage score than reasoning associated with past behavior. The current study focuses on the relation of moral intensity to ethical intention as well as the other first two stages of the general ethical decision-making framework. The extant literature is reviewed below. Although based on Jones's (1991) original issue-contingent ethical decision-making model, our study focuses only on moral recognition, evaluation, and intention stages and not on behavior. For reasons of parsimony, we also did not investigate the organizational factors that Jones maintained might influence moral intentions and behaviors.

Moral Intensity and Ethical Decision Making

Jones (1991) made a significant contribution to the ethical decision-making literature by developing how the characteristics of the moral issue itself might influence ethical decision making in organizations. Specifically, he proposed six separate dimensions of the moral intensity construct: (a) magnitude of consequences—the sum of the harms (or benefits) done to victims (or beneficiaries) of the moral act in question; (b) social consensus—the degree of social agreement that a proposed act is evil (or good); (c) probability of effect—a joint function of the probability that the act in question will actually take place and the act in question will actually cause the harm (or benefit) predicted; (d) temporal immediacy—the length of time between the present and the onset of consequences of the moral act in question (shorter length implies greater immediacy); (e) proximity—the feeling of nearness (social, cultural, psychological, or physical) that the moral agent has for victims (or beneficiaries) of the evil (or beneficial) act in question; and (f) concentration of effect—an inverse function of the number of people affected by an act of given magnitude (see Jones, 1991, pp. 374-378).

Jones (1991) hypothesized that the dimensions of moral intensity would directly affect each of the first three stages in the ethical decision-making framework process (see Figure 1). Empirical studies that address Jones's issue-contingent theory of ethical decision making are relatively few in number. Even fewer studies have examined multiple stages in the

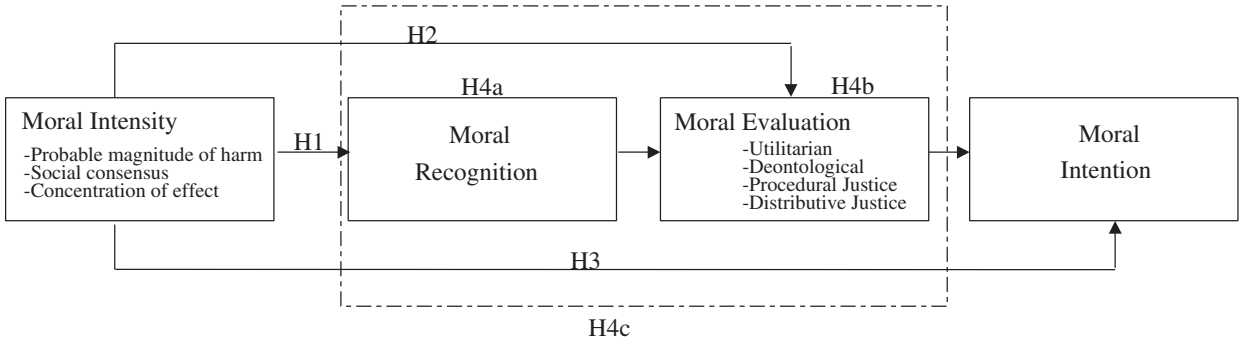

Figure 1. A Theoretical Framework for the Role of Moral Intensity in Ethical Decision Making

ethical decision-making framework. Overall, we found 16 empirical studies that addressed the influence of the moral intensity construct. We have organized the review of this research by the ethical decision-making stage the research addressed and by chronological order.

Moral Intensity and Moral Recognition

Five of the 16 studies addressed the relation of moral intensity dimensions to moral recognition (Davis, Johnson, & Ohmer, 1998; Dukerich, Waller, George, & Huber, 2000; Frey, 2000; Marshall & Dewe, 1997; Singhapakdi, Vitell, & Kraft, 1996). First, Dukerich et al. (2000) sought to find out if managers distinguished between moral and nonmoral problems based on five moral intensity dimensions. These authors found that four of five dimensions of moral intensity (i.e., magnitude of consequences, social consensus, proximity, and concentration of effect) did differ between the two types of problems, with moral problems exhibiting higher moral intensity values. Temporal immediacy did not vary between the two types of problems. However, in a study of members of the American Marketing Association, Singhapakdi et al. (1996) found that all six of the moral intensity dimensions influenced marketers' ethical perceptions. Nevertheless, the results of an exploratory, small-sample study of individuals' ethical assessments (Marshall & Dewe, 1997) suggest otherwise. Social consensus and magnitude of consequences were the only dimensions mentioned to any extent by individuals in their descriptions of moral issues. In a cross-cultural study of moral intensity, Davis et al. (1998) also found that social consensus was significant in predicting "moral concern" in two of the four scenarios (privacy and sexual harassment). Most recently, Frey's (2000) study of New Zealand managers found that both social consensus and magnitude of consequences were important factors in their recognition of the ethical content of issues.

Overall, the discussion above on the relation between moral intensity and moral recognition seems to support the original proposition of Jones (1991) in his issue-contingent model of ethical decision making, particularly for the magnitude of consequences and social consensus dimensions. However, more research is needed to substantiate the role that the other dimensions of moral intensity play in determining the moral recognition of issues. The first hypothesis offered below (Hypothesis 1a) is based on Jones's original work, whereas the second one (Hypothesis 1b) is based on the subsequent empirical research discussed above.

Hypothesis 1a: The dimensions of moral intensity will be positively related to moral recognition.

Hypothesis 1b: Magnitude of consequences and social consensus will be more strongly related to moral recognition than will the other dimensions of moral intensity.

Moral Intensity and Moral Evaluation

Overall, 10 of the 16 articles we found examined some form of moral reasoning, judgment, or evaluation. First, Weber has written two articles addressing whether characteristics of moral issues influence managers' moral reasoning. In the first of these, Weber (1990) found that the type of moral dilemma (e.g., preserving life vs. abiding by the law) influenced managers' stages of moral reasoning. In the second, Weber (1996) found that both the magnitude of consequences and the nature of the harm (physical, economic, or psychological) influenced a manager's moral reasoning stage. Physical harm and problems with greater consequences were associated with higher levels of moral reasoning.

A third study conducted by Jones and Huber (1992) found that the combined effects of five moral intensity dimensions predicted moral judgment (i.e., an individual's evaluation of the decision chosen in a scenario). However, only one of these five dimensions, social consensus, had an independent effect on moral judgment. Morris and McDonald (1995) also studied how the six dimensions of moral intensity influenced moral judgment, similarly defined as the agreement with the alternative chosen in a scenario. In aggregate, the six dimensions explained from 18% to 41% of the variance in individuals' moral judgments. Perceived magnitude of consequences and social consensus approached significance ($p < .10$) in all three scenarios.

In a fifth study, Singer (1996) examined managers' versus the public's perceptions of four of the six moral intensity dimensions, not including proximity and concentration of effect. Although she found that the moral intensity ratings of managers and the public were similar overall, the underlying ethical judgment processes were different. That is, social consensus, magnitude of consequence, and likelihood of action, significantly influenced the ethicality judgments of managers. Social consensus played the most important role. Magnitude of consequences and the probability of effect contributed significantly to the public's ethicality judgments. Magnitude of consequences emerged as the most important factor for the general public.

Harrington's (1997) study of the moral judgments of information systems (IS) employees regarding computer viruses demonstrated the

significant influence of magnitude of consequences and social consensus in determining IS employees' judgments. Similarly, Singer and Singer (1997) found that these moral intensity dimensions retained their influence for both beneficial and harmful consequences among a student sample.

In the first of two studies conducted by Singer, Mitchell, and Turner (1998), the authors found support for the influence of magnitude of consequences, social consensus, and temporal immediacy on individuals' ethicality judgments. Their second study revealed that an individual's need for cognition (i.e., a tendency to engage in and enjoy effortful cognitive activity) interacted with moral intensity dimensions (i.e., magnitude of consequences and social consensus) to predict overall ethicality judgments. Davis et al. (1998) also found that social consensus was significant in predicting moral concern and judgments of morality in two of four scenarios (privacy and sexual harassment) in a cross-cultural context. Finally, Frey's (2000) research found that judgments of the "ethical correctness" of an action were determined most by social consensus and magnitude of consequences.

In summary, most of the research on the relation between moral intensity dimensions and the moral evaluation/judgment stage suggests that moral intensity may influence such judgments and that the magnitude of consequences and social consensus dimensions play the most important role in individuals' judgments. In this research, judgments have been primarily operationalized as the degree of agreement one has with a given statement about the ethicality of the behavior in the scenario. A few studies have followed Jones's (1991) propositions and used cognitive moral reasoning for this stage (e.g., Weber, 1990, 1996), yet no studies have used moral evaluation processes for this stage even though moral evaluation appears in a number of other ethical decision-making models (e.g., Ferrell et al., 1989; Hunt & Vitell, 1986).

The current study fills this gap in the literature by exploring the influence that moral intensity dimensions have on moral evaluations (i.e., utilitarian, deontological, and justice evaluations) in ethical decision making. Based on the results of the literature review above and the plausibility of logical relations, we chose to focus our theoretical development below on the moral intensity dimensions of magnitude of consequences, social consensus, and concentration of effect.

Philosophically based utilitarian evaluation processes should be strongly linked to moral intensity factors such as magnitude of consequences, because utility evaluations fundamentally focus on the consequences of an action to derive ethical judgments. Justice evaluations are also expected to be associated with the consequences of an action, given

that distributive justice considerations focus on the outcomes individuals receive. Procedural justice evaluations also often use outcomes as an indicator of the procedural fairness in a situation (Lind & Lissak, 1985; Thibaut & Walker, 1975). Deontological evaluations seem least likely to rely on consequences; however, such information is often necessary to determine what deontological norm or rule to apply (Hunt & Vitell, 1986).

Similarly, social consensus information should be important for utilitarian evaluations of the societal agreement regarding the desirability of particular consequences. Distributive justice evaluations may also use such information to determine the fairness of the distribution of consequences generally accepted by society or one's own profession. Procedural justice evaluations may use social consensus information to infer the fairness of a moral agent's decision process, particularly if there is wide social consensus on the morality of the agent's actions. Finally, social agreement on the morality of an action may help deontological evaluations consider which rules for behavior are widely shared and applicable to the situation (Hunt & Vitell, 1986).

One final moral intensity dimension seems relevant for moral evaluations based on philosophical grounds: concentration of effect. Specifically, the concentration of effect should be most strongly related to justice-related evaluations, in particular distributive justice evaluations that deal with dispersion of outcomes. Building on work by Rawls (1971), Jones (1991) acknowledged that those individuals who believe in a "paramount importance of justice for the individual" (p. 378) should detest acts that lead to concentrated consequences.

Based on the above discussion linking moral intensity to moral evaluation processes, the second set of hypotheses for the study are offered below:

Hypothesis 2a: The dimensions of moral intensity will influence the moral evaluation processes (i.e., utilitarian, deontological, and procedural and distributive justice evaluations).

Hypothesis 2b: Concentration of effect will be more strongly related to distributive justice evaluations than will the other moral evaluation processes.

Moral Intensity and Moral Intention

Only four of the extant studies investigated the influence of moral intensity on individuals' moral intentions (Flannery & May, 2000; Harrington, 1997; Jalajas, 1993; Singhapakdi et al., 1996). First, Jalajas's (1993) study of cheating behavior among undergraduate students found that variations in the level of four dimensions of moral intensity (i.e.,

magnitude of consequences, social consensus, temporal immediacy, and proximity) did not affect the intention to engage in unethical acts (i.e., cheating behavior). However, Singhapakdi et al. (1996) later found that five of the six dimensions were significantly related to ethical intentions. The sixth dimension, proximity, was related to intentions in only one decision scenario. In the third study, Harrington (1997) found that both the magnitude of consequences and social consensus dimensions influenced IS employees' intentions involving computer viruses. Finally, Flannery and May (2000) found that the ethical intentions of managers increased as the magnitude of consequences from a wastewater treatment issue increased. More important, the authors also theorized and found that the antecedent factors in Ajzen's (1991) theory of planned behavior were more strongly related to managers' ethical intentions regarding wastewater treatment when the magnitude of consequences was low (i.e., low harm to both persons and nonpersons) than when it was high (i.e., high harm to either persons or nonpersons).

The findings discussed above suggest that moral intensity is related to individuals' intentions to behave morally, although this conclusion is tentative given the small number of studies and somewhat mixed results. The third hypothesis of the study is offered below for investigation:

Hypothesis 3: The dimensions of moral intensity will be positively related to individuals' moral intentions.

Moral Intensity and the Issue-Contingent Ethical Decision-Making Framework

As discussed above, Jones (1991) argued that moral intensity influences each stage of his synthesized ethical decision-making framework. The research summarized above has been deficient in testing Jones's issue-contingent model of ethical decision-making in the following ways. First, only three of the studies dealing with moral intensity examined the influence of all six dimensions originally theorized, and one of those was a qualitative, small-sample study (Marshall & Dewe, 1997; Morris & McDonald, 1995; Singhapakdi et al., 1996). Second, as noted above, empirical work on Jones's framework has focused primarily on the moral judgment/evaluation stage, with much less emphasis given to the moral recognition and the moral intention components. Third, none of the studies addressed all of the first three stages of the synthesized model of ethical decision making in one study—moral recognition, moral evaluation/judgment, and

moral intention. Finally, no study has tested the theorized relations among these three components of Jones's framework of ethical decision making while examining the simultaneous influence of moral intensity on those components. This lack of research that more fully examines the theorized role of moral intensity in ethical decision making has led many researchers (e.g., Dukerich et al., 2000; Morris & McDonald, 1995) to call for more theory testing research. This study addresses each of these issues in the literature and thus is the most comprehensive test to date of Jones's first three components of the issue-contingent theory of ethical decision making, with the caveat that we used philosophical moral evaluations instead of cognitive moral reasoning to operationalize the moral judgment stage of his model.

To complete the test of Jones's (1991) depiction of the role of moral intensity in the ethical decision-making process in his Figure 2 (p. 379), the final hypotheses of the study are offered below. Specifically, Jones proposed that moral intensity would directly influence both moral recognition and moral judgment/evaluation. In addition, the arrows in his model suggest that moral recognition will directly influence moral judgment/evaluation. Thus, the relation between moral intensity and moral evaluation is expected to be partially mediated by moral recognition given the direct and indirect effects of moral intensity on moral judgment/evaluation.

Next, moral recognition was proposed by Jones (1991) to influence moral intention only through moral judgment/evaluation. That is, consistent with Rest (1986), no direct relation between moral recognition and intention was proposed in his issue-contingent model of ethical decision making. Thus, we expect moral evaluation to fully mediate the relation between moral recognition and intention.

Finally, Jones proposed both a direct relation of moral intensity to moral intention and an indirect relation through moral recognition and moral judgment/evaluation. Thus, we expect that moral recognition and moral judgment/evaluation will partially mediate the relation between moral intensity and moral intention. These expectations drawn from Jones's model are explicated as formal hypotheses below:

Hypothesis 4a: Moral recognition will partially mediate the relation between moral intensity and moral evaluation.

Hypothesis 4b: Moral evaluation will fully mediate the relation between moral recognition and moral intention.

Hypothesis 4c: Moral recognition and moral evaluation will partially mediate the relation between moral intensity and moral intention.

METHOD

Research Design and Participants

The research methodology used standardized scenarios (Cavanagh & Fritzsche, 1985; Randall & Gibson, 1990) presented to undergraduate students in nine business classes at a large Midwestern university. Although some researchers question the appropriateness of student samples, recent research has shown that students and practicing managers are comparable in their sensitivity to ethical issues in business decision making (Lysonski & Gaidis, 1991). Furthermore, Randall and Gibson (1990) pointed out that when studying the ethical decision-making process itself, student samples can be used without a major threat to generalizability.

Participants examined each scenario and then completed questions that assessed moral intention, moral evaluation processes, moral intensity dimensions, and moral recognition. The total number of individuals available to participate was 203. Of these, 189 were eligible to participate (i.e., at least 19 years of age according to Internal Review Board guidelines) and chose to complete the survey instead of an alternative assignment for an overall response rate of 93%. The mean age of the participants was 23 (ranging from 20 to 72). Approximately 93.6% of the participants fell between 20 and 27 years of age. The mean education level was "junior in college"; 52.5% of the respondents were male.

Procedure

Participants were informed that participation in the study was voluntary and that all results would be kept confidential by the second author, who was not associated with any of the classes. Those who participated in the study received extra course credit; those who chose not to participate were given a different opportunity for extra credit. The participants were informed that the study sought their perceptions about a pair of business-related situations. The scenarios were adapted from Hansen (1992) (see the appendix). A series of questionnaire items measuring the variables in the study followed each scenario.

Measures

Moral intention. We followed recommendations by Hunt and Vitell (1986) and Weber and Gillespie (1998) on the use and wording of scenarios in business ethics research to formulate our moral intention scale.

Individuals were asked to indicate their level of agreement to questions about how they would behave in the situation presented in the scenario. The three items (Scenario 1: $\alpha = .92$; Scenario 2: $\alpha = .88$) were based on previous research (Flannery & May, 2000; Mayo & Marks, 1990; Vitell & Hunt, 1990) and were specific to the manager's actions in each scenario: "As quality control manager, I would release the findings of the cumulative effects of the pollution from the plant"; "I would not release the findings of the cumulative effects of the pollution from the plant, if I were quality control manager" (reverse-scored); and "it is likely I would release the findings of the cumulative effects of the pollution from the plant." Participants reported their level of agreement on a 1-to-7 Likert-type scale (1 = *disagree strongly*, 7 = *agree strongly*).

Moral recognition. Following Singhapakdi et al. (1996), moral recognition for each scenario was assessed by participants' agreement with the following statement: "The scenario presented an ethical dilemma." Participants reported their level of agreement on a 1-to-7 Likert-type scale (1 = *disagree strongly*, 7 = *agree strongly*).

Moral evaluation. Moral evaluation was measured using four subscales. Participants reported their level of agreement on a 1-to-7 Likert-type scale (1 = *disagree strongly*, 2 = *agree strongly*) on items adapted from previous research (Hansen, 1992; Reidenbach & Robin, 1990). Procedural justice evaluations were measured using a two-item scale (Scenario 1: $\alpha = .64$; Scenario 2: $\alpha = .67$): "The decision-making process was fair"; "the manager's decision was just." Distributive justice evaluations were measured using a three item scale (Scenario 1: $\alpha = .68$; Scenario 2: $\alpha = .61$): "The effects of the manager's decision will be equitably distributed amongst those impacted"; "the outcomes of the manager's decision will be fair"; "the consequences of the manager's decision will be equally distributed amongst those affected." Utilitarian evaluations were measured using a three-item scale (Scenario 1: $\alpha = .77$; Scenario 2: $\alpha = .72$): "The decision was justified by its results"; "the decision was correct because it maximized the benefits to those involved"; "the manager's decision was in the best interests of those individuals affected." Deontological evaluations were measured using a two-item scale (Scenario 1: $\alpha = .81$; Scenario 2: $\alpha = .64$): "The manager's decision considered his/her obligations to others"; "the manager's decision incorporated his/her duty to others in the situation."

Moral intensity. The dimensions of moral intensity were measured using items based on Jones (1991) and adapted from previous research

(Singer, 1996; Singhapakdi et al., 1996). Participants reported their level of agreement to each item on a 1-to-7 Likert-type scale (1 = *disagree strongly*, 7 = *agree strongly*). Magnitude of consequences was measured with a four-item scale (Scenario 1: $\alpha = .71$; Scenario 2: $\alpha = .81$): "Others will be harmed by the manager's decision"; "the overall harm (if any) done as a result of the manager's decision will be small" (reverse-scored); "the results of the manager's decision will be detrimental to other people"; "the manager's decision will have serious consequences for others." Probability of effect was measured using three items (Scenario 1: $\alpha = .68$; Scenario 2: $\alpha = .70$): "There is a very small likelihood that the manager's decision will actually cause any harm" (reverse-scored); "the manager's decision will definitely harm others"; "the expected effect of the manager's decision is likely to occur." Proximity was measured using two items (Scenario 1: $\alpha = .61$; Scenario 2: $\alpha = .61$): "The manager's decision will affect people in the local community"; "the manager's decision will impact his/her co-workers." Temporal immediacy was measured using two items (Scenario 1: $\alpha = .73$; Scenario 2: $\alpha = .79$): "The manager's decision will cause harm in the immediate future"; "the consequences of the manager's decision will occur in the near future." Concentration of effect was measured using three items (Scenario 1: $\alpha = .80$; Scenario 2: $\alpha = .82$): "The manager's decision will harm a few people a great deal"; "the consequences of the manager's decision will impact a small number of people in a major way"; "a few individuals will bear the brunt of the manager's decision." Social consensus was measured using two items (Scenario 1: $\alpha = .72$; Scenario 2: $\alpha = .79$): "Other managers in the company would agree with the manager's decision"; "others in the manager's profession would support his/her decision."

Similar to Singhapakdi et al.'s (1996) research, preliminary analysis of these moral intensity dimensions revealed that several of the subscales were highly intercorrelated, and supplementary factor analyses revealed that some of the moral intensity dimensions loaded together. Based on this, we followed recommendations by Fox (1991) and combined the magnitude of consequence, probability of effect, proximity, and temporal immediacy subscales into an overall "probable magnitude of harm" scale made up of all 11 items contained in the original four subscales (Scenario 1: $\alpha = .82$; Scenario 2: $\alpha = .88$). This new scale was used in all of the subsequent analyses. The concentration of effect and social consensus subscales were retained in their original form.

RESULTS

Relations Among the Variables

The means, standard deviations, and correlations among the variables in the study are shown in Table 1. As depicted in the table, individuals reported relatively high levels of moral recognition for each scenario presented, validating the ethical nature of the issues addressed in the scenarios. Table 1 also shows that there were significant correlations among the moral evaluation processes (i.e., procedural justice, distributive justice, utilitarian, and deontological evaluations). This finding is consistent with previous research that has found that individuals use multiple forms of evaluation when dealing with moral situations (Brady, 1985; Hunt & Vitell, 1986; Mayo & Marks, 1990; Vitell & Hunt, 1990).

Table 1 also indicates that there was a significant positive correlation between probable magnitude of harm and moral recognition in the second scenario but only nonsignificant correlations between the other moral intensity subscales (i.e., social consensus, concentration of effect) and moral recognition. This suggests that some, but not all, dimensions of moral intensity may affect moral recognition. These bivariate correlations provide initial limited support for the relationships proposed in Hypotheses 1a and 1b. The significant correlations between most of the moral intensity dimensions and moral evaluation processes in Table 1 are consistent with Hypothesis 2a. Of particular interest is the direction of these relations. As issues became more intense, less evaluation was conducted by the participants, perhaps due to the clarity of the moral action required. Initial correlational evidence for Hypothesis 2b revealed that concentration of effect was more strongly related to distributive justice evaluations than the other evaluation processes. These findings provide preliminary support for Hypothesis 2b. Finally, two of the three moral intensity subscales were significantly correlated with moral intention in both scenarios, demonstrating initial partial support for Hypothesis 3.

Moral Intensity and Moral Recognition, Evaluation, and Intention

To examine more rigorously the relations proposed between moral intensity, moral recognition, moral evaluation, and moral intention (Hypotheses 1 through 3), a series of regressions was conducted.

Moral intensity and moral recognition. To test the influence of moral intensity on moral recognition (Hypotheses 1a and 1b), a regression was

Table 1
*Means, Standard Deviations, and Intercorrelations Among All Variables (*N = *188-189)*

Variable	M	SD	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Scenario 1 (Environment)										
1. Probable magnitude of harm	5.07	0.74	—							
2. Social consensus	3.68	1.18	.24**	—						
3. Concentration of effect	4.23	1.29	.34**	.04	—					
4. Procedural justice	3.06	1.15	–.51**	–.43**	–.16*	—				
5. Distributive justice	3.08	1.04	–.35**	–.12	–.23**	.42**	—			
6. Utilitarian	3.03	1.09	–.47**	–.36**	–.12	.75**	.44**	—		
7. Deontological	3.46	1.50	–.31**	–.34**	–.08	.55**	.22**	.61**	—	
8. Moral recognition	6.03	1.36	.12	–.04	–.06	–.13	–.15*	–.12	.01	—
9. Moral intention	5.23	1.37	.42**	.32**	.17*	–.63**	–.25**	–.55**	–.36**	.16*
Scenario 2 (Product safety)										
1. Probable magnitude of harm	5.38	0.81	—							
2. Social consensus	4.09	1.27	.32**	—						
3. Concentration of effect	5.49	1.16	.22**	.17*	—					
4. Procedural justice	2.61	1.13	–.53**	–.31**	–.20**	—				
5. Distributive justice	2.53	0.97	–.31**	–.10	–.33**	.41**	—			
6. Utilitarian	2.53	1.02	–.49**	–.22**	–.20**	.68**	.47**	—		
7. Deontological	2.92	1.28	–.45**	–.29**	–.18*	.60**	.25**	.56**	—	
8. Moral recognition	6.04	1.46	.17*	–.06	.09	–.09	–.18*	–.24**	–.06	—
9. Moral intention	5.74	1.21	.44**	.20*	.09	–.49**	–.17*	–.47**	–.36**	.18*

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

run that regressed the three moral intensity dimensions entered as a block (i.e., probable magnitude of harm, social consensus, concentration of effect) on moral recognition. As shown in the top portion of Table 2, the overall moral intensity scale explained a significant amount of the variance in moral recognition in Scenario 2 but not in Scenario 1. Based on this finding, Hypothesis 1a received partial support. An examination of the standardized beta coefficients in Table 2 suggests that probable magnitude of harm had a significant influence on moral recognition, but social consensus had no effect in either scenario. These results suggest some support for Hypothesis 1b.

Moral intensity and moral evaluation. To examine the influence of moral intensity on moral evaluation (Hypotheses 2a and 2b), the three moral intensity subscales entered as a block (i.e., probable magnitude of harm, social consensus, and concentration of effect) were regressed on each of the moral evaluation subscales (i.e., procedural justice, distributive justice, utilitarian, and deontological evaluations). As indicated in the top portion of Tables 2 and 3, the moral intensity dimensions did explain a significant amount of the variance in the procedural justice, distributive justice, utilitarian, and deontological evaluations in both scenarios. Thus, Hypothesis 2a was fully supported by the data. In addition, an examination of the standardized beta coefficients for concentration of effect with each of the moral evaluation processes revealed that concentration of effect significantly influenced distributive justice evaluations in Scenario 2 but did not influence any of the other moral evaluation processes. This provides partial support for Hypothesis 2b.

Moral intensity and moral intention. To test for the influence of moral intensity on moral intention (Hypothesis 3), the three moral intensity subscales were again entered as a block (i.e., probable magnitude of harm, social consensus, and concentration of effect) and regressed on moral intention. As indicated in Table 3, the moral intensity block did explain a significant amount of the variance in moral intention in both scenarios. Thus, Hypothesis 3 was fully supported by the data.

Moral Intensity and the Ethical Decision-Making Framework

To test the relation among the components of our ethical decision-making framework, a series of hierarchical regressions were run following Baron and Kenny's (1986) recommended four-step process for mediation analyses. See Figure 1 for a graphical representation of these mediation hypotheses.

Table 2
*Regression Results for the Effects of Moral Intensity on Moral Recognition and Procedural and Distributive Justice Evaluations and the Effects of Moral Recognition on Procedural and Distributive Justice Evaluations (*N = *188-189)*

	Moral Recognition				*Procedural Justice*				*Distributive Justice*			
	Scenario 1		*Scenario 2*		*Scenario 1*		*Scenario 2*		*Scenario 1*		*Scenario 2*	
Variable	β_1	R^2_1	β_2	R^2_2	β_1	R^2_1	β_2	R^2_2	β_1	R^2_1	β_2	R^2_2
Step 1												
Probable magnitude of harm	.17*		.20*		–.43**		–.47**		–.30**		–.25**	
Social consensus	–.07		–.13		–.33**		–.15*		–.04		.03	
Concentration of effect	–.11	.03	.07	.05*	–.00	.37**	–.07	.31**	–.12	.14**	–.28**	.17**
Step 1												
Moral recognition					–.13	.01	–.09	.01	–.15*	.02*	–.18*	.03*

Note: Standardized beta coefficients listed are the regression coefficients at each step of the equation. β_1 = Beta value for Scenario 1; β_2 = Beta value for Scenario 2. R^2_1 = *R*-squared value for Scenario 1; R^2_2 = *R*-squared value for Scenario 2.
*$p < .05$. **$p < .01$.

Table 3
*Regression Results for the Effects of Moral Intensity and Moral Recognition on Utilitarian and Deontological Evaluations and Moral Intention (*N = *188-189)*

	Utilitarian				*Deontological*				*Moral Intention*			
	Scenario 1		*Scenario 2*		*Scenario 1*		*Scenario 2*		*Scenario 1*		*Scenario 2*	
Variable	β_1	R_1^2	β_2	R_2^2	β_1	R_1^2	β_2	R_2^2	β_1	R_1^2	β_2	R_2^2
Step 1												
Probable magnitude of harm	–.42**		–.45**		–.25**		–.38**		.36**		.42**	
Social consensus	–.26**		–.06		–.28**		–.16*		.25**		.07	
Concentration of effect	.03	.28**	–.10	.25**	.02	.17**	–.06	.23**	.04	.24**	–.01	.20**
Step 1												
Moral recognition	–.12	.01	–.24**	.06**	.01	.00	–.06	.00	.16*	.02*	.18*	.03*

Note: Standardized beta coefficients listed are the regression coefficients at each step of the equation. β_1 = Beta value for Scenario 1; β_2 = Beta value for Scenario 2. R^2_1 = *R*-squared value for Scenario 1; R^2_2 = *R*-squared value for Scenario 2.
*$p < .05$. **$p < .01$.

Moral recognition mediation. To examine whether moral recognition partially mediated the relation between moral intensity and moral evaluation (Hypothesis 4a), we conducted Baron and Kenny's (1986) four-step mediation analysis. Each step must hold to support a conclusion of mediation in the data. In the first step, the independent variable must significantly influence the mediator. As shown in the upper portion of Table 2, moral intensity did have a significant effect on moral recognition in Scenario 2, but not in Scenario 1. Given this, we focused on Scenario 2 for subsequent mediation analyses. In the second step, the independent variable must significantly influence the dependent variable. As noted in Tables 2 and 3, the moral intensity block significantly influenced each of the moral evaluation processes in Scenario 2. In the third step, the mediator variable must significantly influence the dependent variable. Tables 2 and 3 demonstrate that moral recognition was significantly related to both distributive justice and utilitarian evaluations in Scenario 2. In the final step, full mediation is supported when the effect of the independent variable on the dependent variable is reduced to nonsignificance when controlling for the mediator. Partial mediation is indicated if this effect is reduced in magnitude but still remains significant. Table 4 reveals that when the influence of moral recognition on the moral evaluation processes in Scenario 2 was controlled, the magnitude of the effect of moral intensity on the distributive justice and utilitarian evaluation processes was reduced. These results indicate that moral recognition partially mediated the moral intensity-moral evaluation relation for the distributive justice and utilitarian evaluation processes in Scenario 2. Hence, Hypothesis 4a received partial support from the data.

Moral evaluation mediation. To examine whether moral evaluation fully mediated the relation between moral recognition and moral intention (Hypothesis 4b), we again followed Baron and Kenny's (1986) four-step process: (a) In the first step, moral recognition did have a significant effect on distributive justice in Scenario 1 and both distributive justice and utilitarian evaluations in Scenario 2 (see the lower portion of Tables 2 and 3 for details); (b) in the second step, moral recognition significantly influenced moral intention in both scenarios (see Table 3); (c) in the third step, Table 5 demonstrates that the moral evaluation processes were all significantly related to moral intention in both scenarios; and (d) in the final step, the effect of moral recognition on moral intention (see Table 6) was reduced to nonsignificance after controlling for distributive justice in Scenario 1. The effect of moral recognition on moral intention in Scenario 2 was reduced to nonsignificance after controlling for utilitarian evaluations but was only

Table 4
*Hierarchical Regression Results for the Mediating Effect of Moral Recognition for the Moral Intensity–Moral Evaluation Relation (*N = *188-189)*

	Scenario 1			*Scenario 2*		
Variable	β_1	R_1^2	ΔR_1^2	β_2	R_2^2	ΔR_2^2
Procedural justice						
Step 1						
Moral recognition	–.13	.01	.01	–.09	.01	.01
Step 2						
Probable magnitude of harm	–.42**			–.47**		
Social consensus	–.33**			–.15*		
Concentration of effect	–.01	.36**	.35**	–.06	.31**	.30**
Distributive justice						
Step 1						
Moral recognition	–.15*	.02*	.02*	–.18*	.03*	.03*
Step 2						
Probable magnitude of harm	–.29**			–.23**		
Social consensus	–.06			.02		
Concentration of effect	–.14	.16**	.14**	–.26**	.17**	.14**
Utilitarian						
Step 1						
Moral recognition	–.12	.01	.01	–.24**	.06**	.06**
Step 2						
Probable magnitude of harm	–.40**			–.42**		
Social consensus	–.26**			–.07		
Concentration of effect	.02	.28**	.27**	–.07	.27**	.21**
Deontological						
Step 1						
Moral recognition	.01	.00	.00	–.06	.00	.00
Step 2						
Probable magnitude of harm	–.25**			–.38**		
Social consensus	–.28**			–.15*		
Concentration of effect	.02	.16**	.16**	–.06	.22**	.22**

Note: Standardized beta coefficients listed are the regression coefficients at each step of the equation. β_1 = Beta value for Scenario 1; β_2 = Beta value for Scenario 2. R^2_1 = *R*-squared value for Scenario 1; R^2_2 = *R*-squared value for Scenario 2. ΔR^2_1 = *R*-squared change value for Scenario 1; ΔR^2_2 = *R*-squared change value for Scenario 2.
*$p < .05$. **$p < .01$.

reduced in magnitude by distributive justice. Thus, distributive justice evaluations provided full mediation of the moral recognition–moral intention relation in Scenario 1 and partial mediation in Scenario 2. Utilitarian evaluations provided full mediation of the relation between moral recognition and moral intention in Scenario 2. Thus, Hypothesis 4b received partial support.

Table 5
*Regression Results for the Effect of the Moral Evaluation Processes on Moral Intention (*N = *188-189)*

	Moral Intention			
	Scenario 1		*Scenario 2*	
Variable	β_1	R^2_1	β_2	R^2_2
Step 1: Procedural justice	–.63**	.40**	–.49**	.24**
Step 1: Distributive justice	–.25**	.06**	–.17*	.03*
Step 1: Utilitarian	–.55**	.30**	–.47**	.22**
Step 1: Deontological	–.36**	.13**	–.36**	.13**

Note: Standardized beta coefficients listed are the regression coefficients at each step of the equation. β_1 = Beta value for Scenario 1; β_2 = Beta value for Scenario 2. R^2_1 = *R*-squared value for Scenario 1; R^2_2 = *R*-squared value for Scenario 2. Consistent with bivariate correlations, this table was provided as part of the Baron and Kenny (1996) mediation analysis.
*$p < .05$. **$p < .01$.

Table 6
*Hierarchical Regression Results for the Mediating Effect of the Moral Evaluation Processes for the Moral Recognition-Moral Intention Relation (*N = *188-189)*

	Moral Intention					
	Scenario 1			*Scenario 2*		
Variable	β_1	R^2_1	ΔR^2_1	β_2	R^2_2	ΔR^2_2
Step 1: Procedural justice	–.63**	.40**	.40**	–.49**	.24**	.24**
Step 2: Moral recognition	.08	.40**	.00	.13*	.26**	.02*
Step 1: Distributive justice	–.25**	.06**	.06**	–.17*	.03*	.03*
Step 2: Moral recognition	.12	.07**	.01	.15*	.05*	.02*
Step 1: Utilitarian	–.55**	.30**	.30**	–.47**	.22**	.22**
Step 2: Moral recognition	.09	.31**	.01	.07	.23**	.01
Step 1: Deontological	–.36**	.13**	.13**	–.36**	.13**	.13**
Step 2: Moral recognition	.16*	.16**	.03*	.16*	.15**	.02*

Note: Standardized beta coefficients listed are the regression coefficients at each step of the equation. β_1 = Beta value for Scenario 1; β_2 = Beta value for Scenario 2. R^2_1 = *R*-squared value for Scenario 1; R^2_2 = *R*-squared value for Scenario 2. ΔR^2_1 = *R*-squared change value for Scenario 1; ΔR^2_2 = *R*-squared change value for Scenario 2.
*$p < .05$. **$p < .01$.

Moral recognition and moral evaluation mediation. To examine whether moral recognition and moral evaluation partially mediated the relation between moral intensity and moral intention (Hypothesis 4c), we again followed Baron and Kenny's (1986) four-step process: In the first step, the moral intensity dimensions had a significant influence on moral

recognition in Scenario 2 but not Scenario 1 (see Table 2). Given this, we focused on Scenario 2 for further mediation analyses. We found that moral intensity was related to all of the moral evaluation processes in Scenario 2 (i.e., procedural justice, distributive justice, utilitarian, and deontological evaluations) (see Tables 2 and 3). In the second step, the moral intensity block significantly influenced moral intention in Scenario 2 (see Table 3). In the third step, moral recognition was related to moral intention in Scenario 2 (see Table 3), and each of the moral evaluation processes was related to moral intention in Scenario 2 (see Table 5). In the final step, Table 7 demonstrates that the magnitude of the effect of moral intensity on moral intention was reduced by the combination of moral recognition and each of the moral evaluation processes (i.e., procedural justice, distributive justice, utilitarian, and deontological evaluations). These results support the partial mediation of the moral intensity–moral intention relation by moral recognition and each of the moral evaluation processes in Scenario 2. Thus, Hypothesis 4c was partially supported by the data.

DISCUSSION

The results of this study contribute to our understanding of ethical decision making and the role that moral intensity plays in an issue-contingent framework. Specifically, the findings suggest that moral intensity is directly related to three components of ethical decision making: moral recognition, moral evaluation, and moral intention. The block of moral intensity dimensions was significantly related to moral recognition in the second scenario. The probable magnitude of harm dimension was responsible for this effect. The block of moral intensity factors was also significantly related to each of the moral evaluation processes (i.e., procedural justice, distributive justice, utilitarian, and deontological evaluations) and to moral intention in both scenarios.

Results from the investigation of the role of moral intensity in the ethical decision-making model presented here (see Figure 1) revealed that the moral intensity–moral evaluation relation was partially mediated by moral recognition for the distributive justice and utilitarian evaluation processes in the second scenario. As expected, the moral recognition–moral intention relation was fully mediated by distributive justice evaluations in the first scenario and utilitarian evaluations in the second scenario. Distributive justice also partially mediated the relation in the second scenario. Finally, consistent with expectations, the moral intensity–moral intention relation was partially mediated by moral recognition and each of the moral evaluation processes for the second scenario. In total, these

Table 7
Hierarchical Regression Results for the Mediating Effect of Moral Recognition and the Moral Evaluation Processes for the Moral Intensity–Moral Intention Relation

	*Moral Intention (*N = *188-189)*					
Variable	β_1	R^2_1	ΔR^2_1	β_2	R^2_2	ΔR^2_2
Step 1						
Moral recognition	.08			.13*		
Procedural justice	–.62**	.40**	.40**	–.48**	.25**	.25**
Step 2						
Probable magnitude of harm	.12			.23**		
Social consensus	.08			.03		
Concentration of effect	.05	.42**	.02	–.04	.29**	.04*
Step 1						
Moral recognition	.12			.15*		
Distributive justice	–.23**	.08**	.08**	–.14	.05**	.05**
Step 2						
Probable magnitude of harm	.32**			.39**		
Social consensus	.25**			.08		
Concentration of effect	.04	.26**	.18**	–.03	.21**	.16**
Step 1						
Moral recognition	.09			.07		
Utilitarian	–.54**	.31**	.31**	–.45**	.22**	.22**
Step 2						
Probable magnitude of harm	.18*			.26**		
Social consensus	.15*			.06		
Concentration of effect	.06	.37**	.06**	–.04	.28**	.06**
Step 1						
Moral recognition	.16*			.16*		
Deontological	–.36**	.16**	.16**	–.35**	.15**	.15**
Step 2						
Probable magnitude of harm	.28**			.32**		
Social consensus	.20**			.05		
Concentration of effect	.06	.29**	.13**	–.03	.24**	.09**

Note: Standardized beta coefficients listed are the regression coefficients at each step of the equation. β_1 = Beta value for Scenario 1; β_2 = Beta value for Scenario 2. R^2_1 = *R*-squared value for Scenario 1; R^2_2 = *R*-squared value for Scenario 2. ΔR^2_1 = *R*-squared change value for Scenario 1; ΔR^2_2 = *R*-squared change value for Scenario 2.
*$p < .05$. **$p < .01$.

mediation analyses provided some support for the role of moral intensity in the proposed ethical decision-making framework.

Integration With Previous Theory and Research

The significant results of a relation between the moral intensity dimensions (e.g., the probable magnitude of harm dimension) and moral recog-

nition in the second scenario is consistent with work by Dukerich et al. (2000) and Singhapakdi et al. (1996). These researchers found such relations using similar measures of moral recognition with different ethical scenarios. However, the lack of a significant relation between moral intensity and moral recognition in the first scenario is consistent with Marshall and Dewe's (1997) qualitative study that found little relation between moral intensity factors and individuals' ethical assessments of situations.

The mixed results regarding this relation may be due to a number of factors. First, it may be that the moral intensity–moral recognition relation is contingent on the context involved. Future research should explore the role of moral intensity in different contexts with different populations to determine the validity of the moral intensity–moral recognition relation. Furthermore, the moral scenarios drawn from the ethics literature (Hansen, 1992) resulted in high levels of moral recognition and a potential "ceiling effect" in the current study. Thus, future research may wish to explore less morally intense contexts than those studied here. Finally, future studies should consider different operationalizations of moral recognition to see what effects occur. For example, issue recall could be used as a measure of moral recognition (Gautschi & Jones, 1998).

Next, the findings of this study revealed that the moral intensity dimensions were significantly related to the moral evaluation processes. The probable magnitude of harm dimension was somewhat more strongly related to the moral evaluation processes than either the social consensus or concentration of effect dimensions across both scenarios.

Consistent with expectations, the concentration of effect dimension was significantly related to distributive justice evaluations in one scenario but not to the other moral evaluation processes. Finally, an interesting finding was that the moral intensity dimensions were negatively related to the moral evaluation processes. That is, the more intense an issue became, the less individuals needed to consider its moral dimensions, perhaps because the course of moral action is clear. Similarly, Flannery and May (2000) found that contextual factors had little influence on environmental managers' ethical decision intentions when the magnitude of consequences to persons or nonpersons was high (i.e., morally intense). Future research should examine if an inverse relation between moral intensity dimensions and evaluation processes holds in different contexts and may wish to examine whether the relation is curvilinear in nature.

The moral evaluation findings in the current study extend Jones's (1991) issue-contingent model by linking moral intensity to moral evaluation processes rather than moral development. Furthermore, these findings reinforce the inclusion of moral evaluation processes in the ethical decision-making models advocated by Hunt and Vitell (1986) and Ferrell et al.

(1989). In addition, findings from this study are consistent with previous theory by Brady (1985) and empirical work by Mayo and Marks (1990) and Vitell and Hunt (1990) that suggests that individuals' ethical judgments are jointly determined by both deontological and teleological evaluations. This research extends these models by looking at the role that justice evaluations play in ethical decision making. Consistent with previous literature (Lind & Lissak, 1985; Lind & Tyler, 1988), individuals used both probability of harm and social consensus information to infer procedural and distributive fairness in the ethical situations.

In the future, researchers may wish to incorporate these moral evaluation processes in the theoretical development of new ethical decision-making models. Research should also explore the extent to which individuals rely on one process of moral evaluation or another given that some researchers (Brady & Wheeler, 1996) claim that individuals have ethical predispositions. The strong relationship between the moral intensity factors and moral evaluation processes assessed here suggests otherwise, although this research did not attempt to measure individual differences in moral evaluations. Finally, future research should also attempt to link the moral evaluation processes outlined here with cognitive moral reasoning (Kohlberg, 1981; Trevino, 1992; Weber, 1996). Some relationship can be drawn between the deontological evaluations studied here and Kohlberg's (1981) Stage 6 in the postconventional level of reasoning in which individuals use universal ethical principles.

Findings in this study also revealed that moral intensity dimensions were significantly related to moral intention. These relations are important given that intentions are one of the best (although not always good) predictors of subsequent behavior (Fishbein & Ajzen, 1975), particularly if they are specific in nature. These findings are also consistent with three other empirical studies (Flannery & May, 2000; Harrington, 1997; Singhapakdi et al., 1996) and therefore help build our confidence that moral intensity is indeed related to moral intention across different contexts. Future research should attempt to link moral intensity to actual moral behavior in organizations as proposed by ethical decision-making models (Ferrell & Gresham, 1985; Jones, 1991; Trevino, 1986).

Finally, our empirical test of a theoretical model based on a variation of Jones's (1991) issue-contingent ethical decision-making framework makes a significant contribution to the ethics literature, which has few empirical studies directed at theory testing despite the calls for such research (Ford & Richardson, 1994; Randall & Gibson, 1990). Overall, findings revealed partial support for the proposed relations in the model. As noted above, moral intensity influenced moral recognition, moral

evaluations, and moral intention. The proposed role of moral intensity in the ethical decision-making process itself (Hypotheses 4a through 4c) also received some support.

Overall, our study suggests that future theorizing and empirical work in ethical decision making should take into account the role of moral intensity and the significant mediating role of philosophically based moral evaluations (particularly distributive justice and utilitarian evaluations) in ethical decision making. Finally, future theory development may wish to explore alternative models for the potential moderating role of moral intensity in ethical decision making. For example, Flannery and May (2000) built on Mischel's (1968) work in psychology on dispositional effects in strong versus weak situations to show that moral intensity can moderate the influence of contextual influences on the environmental ethical decision intentions of managers. These authors showed that when moral intensity was low (weak situation), individual and environmental factors more strongly influenced the ethical intentions of managers than when moral intensity was high (strong situation).

Strengths and Limitations

As with any research conducted, this study has both strengths and limitations. First, the study was grounded in the previous research on moral intensity and represented a more complete empirical test of a theoretical model based on the issue-contingent model of ethical decision making than had previously been conducted. Second, the research study conducted rigorous tests of the hypotheses using multiple regression that followed guidelines proposed by Baron and Kenny (1986) for mediation analyses. Third, care was taken in the research to use multiple realistic scenarios (Fritzsche & Becker, 1984; Randall & Gibson, 1990) with perceived varying levels of moral intensity to provide greater generalization of the theory testing across contexts.

This research also has limitations. First, the participants were students at a major Midwestern public university. Nevertheless, as noted earlier, research has shown that students and practicing managers are actually comparable in their sensitivity to ethical issues in business decision making (Lysonski & Gaidis, 1991) and student samples may not limit generalizability when studying the ethical decision-making process itself (Randall & Gibson, 1990).

Second, the sample size used in the current study was close to the median sample size of empirical business ethics articles (i.e., 196) reported by Randall and Gibson (1990), helping to minimize any sampling error.

Nevertheless, the sample was confined to one university population. Future research should strive to replicate these findings in other samples of students and managers to ensure their generalizability.

Third, although most of the scale reliabilities for the measures were adequate in this study, those for the procedural and distributive justice scales were somewhat low, ranging from .61 to .68. Still, Nunnally (1978) suggests that these figures are acceptable for the type of exploratory research conducted here on the moral evaluation measures.

Finally, all variables were measured via self-report with survey methodology leaving open the chance for common method variance to influence the results. Care was taken to position the moral recognition items at the end of the questionnaire in order not to prime the respondent about the nature of the issue involved. We acknowledge that the use of self-report measures is a potential limitation of the study. Nevertheless, we note that the most valid source for information about an individual's moral recognition, moral evaluation, moral intention, and moral intensity perceptions is the individual himself or herself.

Implications for Management

The findings of this research have a number of important implications for managers in organizations. First, moral intensity had direct effects on the moral intentions of the participants. Specifically, organizational members are likely to vary their intentions to act ethically or unethically based on the probability of harm and social consensus dimensions of moral intensity. Thus, managers who wish their employees to act ethically would be well advised to conduct training sessions with their employees that expose them to the typical ethical issues they may face at work. During these training sessions, managers should discuss the ethical issues in terms of the magnitude of consequences, probability of the effect, temporal immediacy, and proximity of the harm involved. Increased realization of the consequences that organizational actions cause can help curb harmful deeds. In addition, managers should discuss the general consensus among members of the company, profession, and society of the ethicality of certain decisions that employees may make while on the job.

Second, repeated exposure to typical ethical dilemmas faced at work may help employees enhance their recognition of these moral issues (Gautschi & Jones, 1998) and develop more ethical intentions given that the moral recognition to moral intention linkage was confirmed in our study.

Finally, the findings that utilitarian and distributive justice moral evaluations are the mediating processes of the moral recognition–moral

intention relation suggest that managers should be careful to frame potential ethical issues in terms of the consequences and the fairness of the outcomes involved. Distributive justice assessments are also sometimes mitigated by procedural justice perceptions (McFarlin & Sweeney, 1992). Indeed, the literature on procedural justice in organizational behavior has demonstrated the strong effects of procedural justice explanations (e.g., Schaubroeck, May, & Brown, 1994), particularly when outcomes may not be perceived as fair (i.e., when harm is involved). Thus, managers should be sensitive to both forms of justice and how they may interact to determine employees' intentions. Finally, the fact that utilitarian evaluations are important in determining ethical intentions is not surprising given that most managers still rely on a utilitarian basis of moral evaluation (Premeaux & Mondy, 1993).

Summary and Conclusions

In conclusion, this research reviews and extends the previous work on the construct of moral intensity by examining the influence of the moral intensity dimensions on a variation of the first three stages of Jones's (1991) issue-contingent model of ethical decision making: moral recognition, moral evaluation, and moral intention. This empirical test of the ethical decision-making framework presented here included an investigation of how these stages relate to one another. The results of this research suggest future avenues for research on the moral intensity construct and on the ethical decision-making process overall. Implications for management were discussed in terms of awareness of ethical issues and the judgment processes underlying ethical decision making. It is hoped that this research will foster increased ethical practices and awareness in today's organizations.

Appendix

Scenario 1: Environmental Pollution

Brantwood Corp. operates a plant that conforms fully to local requirements for maximum emission of toxic substances, as established 10 years ago. The facility is inspected annually, and toxic emissions have always been at an acceptable level. Relying on recently published research, one of the company's quality control managers, Pat Koats, argues that the cumulative effects of the pollution from the plant will cause a risk to public health. Pat says that public officials would agree if they knew of these findings, but Pat's boss has implied it would be a mistake to pursue this issue. Changing the manufacturing process would also be costly. It would

require substantial layoffs, and the plant is the largest single employer in town. Pat decides not to release the findings.

Scenario 2: Product Safety

Chris Ward is manager of product development for an auto parts manufacturer. Chris' firm received a large contract last summer to manufacture transaxles for use in a new line of front-wheel drive family minivans. The contract is very important to Chris' firm. Final testing of the assemblies ended last Friday, and the first shipments are scheduled for 1 week from today. Examining the assembly test reports, Chris discovered that the transaxle might fail when overloaded (i.e., more than 120% of rated capacity) and traveling at highway speeds, potentially leading to fatal accidents. Supervisors seemed uninterested when Chris notified them about the transaxles' problems. Chris thinks about notifying the company that is purchasing the transaxles but decides against it so the company does not lose the contract.

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