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THE EFFECTS OF INDIVIDUAL, CONTEXTUAL, AND MORAL INTENSITY FACTORS ON ENVIRONMENTAL ETHICAL DECISION MAKING

by

Brenda L. Flannery

A DISSERTATION

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy

Major: Interdepartmental Area of Business (Management)
Under the Supervision of Professors Douglas R. May and Fred Luthans

Lincoln, Nebraska

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DISSERTATION TITLE

The Effects of Individual, Contextual, and Moral Intensity Factors on Environmental Ethical Decision Making

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Brenda L. Flannery

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GRADUATE COLLEGE
UNIVERSITY OF NEBRASKA

THE EFFECTS OF INDIVIDUAL, CONTEXTUAL, AND MORAL INTENSITY FACTORS ON ENVIRONMENTAL ETHICAL DECISION MAKING

Brenda L. Flannery, Ph.D.

University of Nebraska, 1997

Advisors: Douglas R. May and Fred Luthans

Most extant studies of organizational ethical decision making have been remiss in doing one or more of the following: (a) building theoretical foundations; (b) encompassing the individual, contextual, and issue-specific determinants impacting ethical judgments; (c) offering testable hypotheses; and/or (d) establishing methodological rigor. This study confronted those challenges aiming to understand the decision intentions of top managers in the metal finishing industry concerning the treatment of hazardous wastewater.

This study employed an extended version of Ajzen's (1988) theory of planned behavior. The theory accommodatingly modeled the individual (i.e., attitudes, self-efficacy, personal moral obligation), contextual (subjective norms, organizational climate, and financial cost), and issue-specific (i.e., moral intensity) factors relative to the top managers' decision intentions. Hypotheses were developed and tested for each of the seven influences.

The development of the decision scenarios and instrument necessitated iterations with diverse information sources. Data collected from 140 top managers was assessed using correlational and hierarchical multiple regression analyses. The findings showed that managers' attitudes toward the treatment of hazardous wastewater, subjective norms influence, perceptions of the instrumentality of their respective climates, and financial cost considerations significantly influenced the managers' decision intention concerning the treatment of hazardous wastewater.

Contrary to previous studies, the personal moral obligation factor did not contribute to the power of Ajzen's model. However, Jones' (1991) moral intensity construct did moderate the relations between Ajzen's other determinants and the managers' decision intention. Specifically, under conditions of high moral intensity-- defined as harmful consequences to either persons and/or nonpersons-- the determinants of the extended theory of planned behavior contributed less to explaining top managers' ethical decision intention than under the low moral intensity condition.

In conclusion, this study's results revealed to practitioners and researchers the complex interplay of individual, organizational, and issue-specific factors upon individual's ethical decision intentions. Implications for future investigations, training, and the influence of contextual information (e.g., organizational climate) were discussed.

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CHAPTER 1

INTRODUCTION

Environmental problems and risks are becoming a more prevalent issue for modern organizations. Reasons for the increased attention include stringent federal, state, and local environmental regulations, escalating disposal costs, natural resource concerns, increased social and community awareness, and other costs associated with environmental damage (e.g., litigation, lost customers, etc.). Likewise, managing environmental concerns is a strategic issue of major import for many companies. A 1991 Booz-Allen and Hamilton survey of more than 220 executives in industries such as consumer goods, chemicals, electronics, automotive services, and food and beverage revealed that companies "spend an average of 2 percent of sales on environmental expenditures " (p. 8). Another survey of U.S. industrial corporations found that 98 percent of those surveyed rated environmental issues as having "critical or important" strategic importance. All companies surveyed felt that environmental considerations would continue to be important in all areas of their business; however, pollution was targeted as one of the most urgent and dominate issues (Deloitte & Touche, & Stanford University, 1990).

Likewise, more researchers in the organizational sciences are studying the interface between organizations and the natural environment (e.g., see Post, Collins, & Starik, 1995 and the 1995 Special Topic Forum in the Academy Management Review on Ecologically Sustainable Organizations). We are becoming more concerned with the natural environment in our study of organizations because as Hawken (1993) stated, business transacts with the natural environment in "what it takes, what it makes, and what it wastes" (p. 12). This open systems perspective verifies that organizations impact the natural environment because of (a) their need for natural resources and energy, (b) the

type of products and services they offer, and (c) the pollutants and other wastes they create.

Organizations transact with the environment in many ways; however, it is proposed that individual organizations and managers vary in how they interact or respond to environmental issues (Flannery & May, 1994). Their responses depend upon many factors including the nature of the organization's business (e.g., chemical manufacturer vs. retail store), environmental regulations, organizational mission or climate, stakeholders concerns, and the attitudes, beliefs, and values of key decision makers toward the environment (Flannery & May, 1994). Because the organization's environmental activities are most often directed by top managers it is important to study the antecedents that direct their decisions. As such, this research aims to understand how well different individual and contextual factors explain managers' intentions concerning the specific environmental activity of hazardous wastewater treatment. More specifically, this environmental decision making dissertation study emanates from two primary research questions. First, what factors most affect a manager's environmental ethical decision intention concerning how hazardous wastewater should be treated? Second, does the influence of each factor in predicting the ethical decision intention change as the moral intensity of the environmental consequence increases?

One assumption of this dissertation research is that a decision concerning the environmental issue of hazardous wastewater treatment includes an ethical or moral element. As Trevino (1986) professed almost a decade ago, "Managers engage in discretionary decision-making behavior affecting the lives and well-being of others. Thus, they are involved in ethical decision making" (p. 601). Whether metal finishing managers decide to treat the facilities' wastewater prior to disposal can most definitely affect the health and welfare of others. Mathews (1988) also claims that the pollution of water and air by hazardous waste materials is a serious ethical issue for companies

because it can cause a great amount of harm to a great amount of people. This issue of harm to people, and also to the environment, will play a significant role in this dissertation study.

While studying the ethical decision making of managers is important, it has received limited attention. According to Jones (1991), "theoretical and empirical examinations of ethical decision making in organizations are in relatively short supply" (p. 366). Likewise, Hosmer (1994) recently proposed, "The concept of ethics as central, not peripheral to the managerial process is not foreign to the management literature; it has merely been neglected...Our task is to bring that concept back, to the forefront...in our research" (p. 203). As important as it is to research ethical decision making, it also is important that our research be strong in both theory and methodology.

In studying the first question, an extended version of Ajzen's (1988, 1991) theory of planned behavior was employed because it is equipped to capture both the individual and contextual factors impacting a manager's environmental decision intention. The individual factors of primary concern were the manager's (1) attitude toward wastewater treatment, (2) perceived level of personal moral obligation for the harmful consequences associated with that decision intention, and (3a) internal perceived behavioral control over that decision (i.e., self-efficacious feeling of control). The contextual factors will focus on the (3b) external perceived behavioral control factors of the instrumental climate of the organization along with the perceived financial costs associated with wastewater treatment, and (4) the social influences of subjective norms. Figure 1 is a representation of the extended theory of planned behavior that provided the theoretical framework for this research study. The extension is the personal moral obligation factor. Concurring with Trevino (1986), including both individual and situational variables in the study of ethical decision making "seems to hold the most promise for advancing our understanding of this complex phenomenon" (p. 602).

The second research question reflects an interest in discerning how the variability or intensity of the environmental issue moderates the impact of each of the individual and contextual factors on the decision intention. According to Collins (1989) and Jones (1991), ethical decision making is issue contingent, and that the content or characteristics of the issue should not be overlooked when studying moral decision making and behavior. He posits that the characteristics of the issue do not duplicate the idiosyncrasies of the individual making the decision nor do they reflect situational factors in which the decision is embedded. Jones (1991) collectively refers to the dimensions of the moral issue as moral intensity. Recently, Morris and McDonald (1995) used three ethical scenarios and found that two of Jones' (1991) dimensions of moral intensity, magnitude of consequences and social consensus, were the most important predictors of the respondents' moral judgments. The magnitude of consequences surrounding the issue has received the most empirical investigation to date (e.g., Fritzsche, 1988; Weber, 1994) and a variation of it was manipulated in this study's four decision scenarios.

A scenario methodology guided the investigation of these two research questions with top decision makers in the metal finishing industry. The metal finishing industry was chosen because it is an industry whose activities can potentially have a great impact on the environment. A scenario methodology has been used in previous studies of ethical or moral decision making (e.g., Fritzsche & Becker, 1984; Morris & McDonald, 1995; Randall & Gibson, 1991; Weber, 1990) because it allows researchers to provide a greater amount of background information and detail in the decision making episode. Fredrickson's (1986) scenario methodology, used previously to study strategic decision making, was followed closely in conducting this study. In brief, during the information gathering stage of the research, interviews were conducted with managers (i.e., decision makers) employed by Nebraska metal finishing companies. Information from these interviews, along with other industry-specific information, were used during the

instrument development stage to write the scenarios and develop questionnaire items. After writing the scenarios and the questions, the instrument was pre-tested with managers in the sample of Nebraska metal finishing companies. The final instrument was then mailed to a national sample of metal finishing managers.

Proposed Contributions to Literature

Randall and Gibson (1990) used the research process framework shown in Figure 2 (and adapted from Babbie, 1986) to highlight some of the major weaknesses with business ethics research. Again, that framework was used here to indicate where this study hopes to make its contributions to the organizational science literature. As shown in Figure 2, this research study attempted to make primary contributions in (a) theory development and (b) research methodology (i.e., scenario methodology). Secondary contributions in the areas of (c) hypothesis formation, (d) conceptualization and operationalization, (e) population and sampling, and (f) the assessment of the observation issue of social desirability response bias were also sought after.

Primary Contributions (see the activities marked with a (**) in Figure 2).

One of the weakest aspects of business ethics research has been in theory development. According to their review of empirical business ethics research, 64 percent of the articles "did not cite any previously established theoretical framework nor seek to develop one" (Randall & Gibson, 1990, p. 461). This omission is serious because it fails to establish a sound foundation for the remainder of the research process. This study was the first to apply an extended version of the theory of planned behavior (TPB; Ajzen, 1988, 1991) to environmental ethical decision making. To this researcher's knowledge, only two other studies have used Ajzen's TPB to empirically study ethical decision making with organizational participants (i.e., Kurland, 1995; Randall & Gibson, 1991). A study by Dubinsky and Loken (1989) did employ its predecessor, the theory of

reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), to study the unethical decision intentions (e.g., offering trips and gifts) of marketing sales personnel.

Based on Ajzen's (1991) contention that "in certain contexts we need to consider...personal feelings of moral obligation or responsibility to perform, or refuse to perform a certain behavior" (p. 199) the construct personal moral obligation was added to the TPB. Both Kurland (1995) and Randall and Gibson (1991) found very strong support for the addition of this construct to the TPB in their studies of ethical decision making. However, neither study developed a theoretical reason for this significance nor sought to identify a corresponding belief system underlying the construct. Kurland (1995) did call for more research in order to "further understand the role moral obligation plays in predicting ethical intentions" (p. 310). This call was met by employing Schwartz's (1970b) awareness of consequence (AC) and ascription of responsibility (AR) theoretical scheme in order to better understand personal moral decisions and behavior. This study is the first to offer such a theoretical foundation for the personal moral obligation construct.

Kurland (1995) also recommended that researchers using the TPB needed to "more consistently define and measure the perceived behavioral control construct" (p. 310). Ajzen (1988) did offer two broad types of behavioral control factors: internal and external. However, both Kurland (1995) and Randall & Gibson (1991) only used measures that tapped into their respondent's perceptions of "internal" control (i.e., similar to Bandura's notion of self-efficacy). This study considered external control factors as well. These external factors are more contextual and will include the organization's instrumental climate (Victor & Cullen, 1988) and perceived financial costs or constraints. This is the first ethical decision making study to expand the perceived behavioral control factor to include organizational variables. Considering these external control factors--especially the organization's instrumental climate--responds to Tetlock's (1985) call for a

"social contextualist approach" to study organizational decision making due to the link between individuals and the social systems to which they belong.

In assessing existing ethical decision making models (e.g., Dubinsky & Loken, 1989; Rest, 1986; Trevino, 1986), Jones (1991) concluded that "despite the fact that collectively these models are reasonably comprehensive...none...include characteristics of the moral issues itself as either an independent variable or a moderating variable" (p. 371). Jones (1991) labeled his issued-contingent construct moral intensity , and in the last five years only a small handful of researchers have included the construct in their investigations of ethical or moral decision making (e.g., Morris & McDonald, 1995; Weber, 1993, 1994). This study attempted to contribute to this overlooked research area by examining how the moral intensity characteristic of magnitude of consequences moderated the relationship between the four antecedents of the extended TPB and the criterion variable of behavioral intention (i.e., decision concerning the treatment of hazardous wastewater).

Another primary contribution emanated from the implementation of Fredrickson's (1986) scenario methodology in the development of this study and its instruments. Randall and Gibson (1990) endorsed Fredrickson's (1986) detailed methodology in order to ensure greater realism in business ethics research. This study, following both Fredrickson's (1986) and Ajzen's (1991) lead, used an inductive approach to develop the study's operationalization of variables based on information derived directly from the metal finishing industry.

Secondary Contributions (see the activities marked with a (*) in Figure 2).

Randall and Gibson (1990) indicated that only 25 percent of empirical business ethics research offered testable hypotheses. This study uses a priori hypotheses to test the relationships among the variables presented in the model. Randall and Gibson (1990) noted that very few business ethics studies appeared concerned with either the

conceptualization or operationalization of the study's key constructs. For example, only a small percentage of the studies defined ethical belief or behavior (p. 462). This study merges the business ethics and environmental literatures to yield a definition for the environmental ethic construct. Also important, the moral intensity construct was tailored to capture the magnitude of consequences (i.e., level of harm) to both persons and nonpersons (i.e., animals and the environment). Likewise, the two extended TPB constructs of personal moral obligation and perceived behavioral control were broadened to improve our understanding of ethical decision making in organizational contexts.

Using Randall & Gibson's (1990) recommendations, this study implemented the following to improve the operationalization of the theoretical constructs (much of this follows Fredrickson's [1986] scenario methodology). First, interviews and pretests took place prior to administering the final instrument. Second, the scenarios helped to establish a common decision stimulus for the respondents (Fredrickson, 1986) and also improved the saliency of the ethical question. Thirdly, the reliabilities (i.e., Cronbach's coefficient alpha) were assessed and reported for each of the TPB variables.

The majority of business ethics studies do not employ random sampling techniques in choosing practicing managers. This study used a type of representative sampling endorsed by Randall and Gibson (1990) with managers in the metal finishing industry. The sample respondents were derived from the National Association of Metal Finishers, a national metal finishing association for management executives with over 850 member companies. Randall and Gibson (1990) noted that sampling from a membership list of a professional association was a particularly good sampling technique (p. 463).

Reducing, and understanding, the social desirability bias -- an important observation issue according to Randall and Gibson (1990) -- needs to be to be addressed by more studies employing self-report sampling techniques. According to Randall and

Fernandes (1991), only one in 96 business ethics empirical studies from 1960-1989 attempted to assess the impact of social desirability response bias upon its results. This study attempted to (a) prevent, (b) detect, and (c) understand the social desirability response bias (Nederhof, 1985).

In summary, this dissertation study aimed to make the following contributions to the ethical decision making literature: (a) Used an extended TPB, along with an issue-contingent variable of moral intensity, to understand environmental ethical decision making; (b) Rigorously employed the scenario methodology; (c) Presented a developed agenda of testable hypotheses; (d) Conceptualized and operationalized key constructs such as ethical decision, moral intensity, personal moral obligation, and perceived behavioral control; (e) Employed a representative sample of managers in the metal finishing industry; and (f) Attempted to detect and analyze the social desirability bias.

Issue of Study

The Metal Finishing Industry and Hazardous Wastewater Treatment

The metal finishing industry includes organizations who "clean, etch, and plate metallic and nonmetallic surfaces to provide desired surface properties" (USEPA, 1992, p. 5). Companies that electroplate, plate, polish, anodize, color, coat, or engrave metal products would be considered metal finishers and would be listed under Standard Industrial Classification (SIC) codes 3471 and/or 3479 (USEPA, 1990a). Figure 3 depicts a typical metal finishing process and the generation of waste, usually considered hazardous, at different stages of the process. Some of the wastes include: (a) plating wastes (e.g., heavy metals such as copper, nickel, zinc, and cadmium) generated from electroplating operations; (b) heavy metal wastewater sludges-- often including arsenic, barium, chromium, lead, mercury, silver, or selenium depending on the operations-- generated from wastewater pre-treatment at the facility; and (c) air emissions that include vapors from degreasing and solvent cleaning and mists from chromium plating operations

(USEPA, 1990b; USEPA 1992). These types of wastes have made the metal processing industry, which includes metal finishing companies, the third largest generator of hazardous waste in the U.S. (the chemical industry is the largest and petroleum refiners are the second largest) (NSWMA, 1989). The specific hazardous waste issue of interest for this study was the treatment of hazardous wastewater.

As a modern chemical and industrial society, we generate almost five pounds of hazardous waste-- especially by the three industries cited in the above paragraph--each day for every U.S. citizen (Gore, 1992, p. 146). A 1983 estimate proposed that only ten percent of our hazardous waste was disposed of, at that time, in an environmentally sound manner (Lester & Bowman, 1983, p. 8). Since then, stricter environmental legislation has improved how commercial hazardous waste is handled. However, the problem persists because, according to one assessment, world chemical waste production is doubling in volume every seven to eight years (Gore, 1992).

To be more exact as to what constitutes a hazardous waste, one definition is that it is a waste product "potentially dangerous to human health or the environment in one or more of these ways:

> • It may ignite easily, posing a fire hazard;
> • It may be corrosive, capable of damaging containers or other materials, or of injuring people;
> • It may be reactive, likely to explode or catch fire when in contact with water or other materials;
> • It may be toxic, capable of causing serious illness or other health problems if handled incorrectly; or
> • It may be a listed waste, a substance that may or may not possess one or more of the above attributes, but is deemed by regulatory authorities to be potentially hazardous." (NSWMA, 1989, p. 2-3).

Because of the harm it can potentially cause the environment, people and animals some assert that solid and hazardous waste may be one of our country's most threatening environmental problems (Lester & Bowman, 1983). Reason for such concern emanates from highly publicized disasters such as Love Canal where the improper underground disposal of hazardous wastes by a chemical company in the 1940s and 1950s directly