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EXPLICATING SEX DIFFERENCES IN MARKETING MANAGERS' EGOIST VERSUS UTILITARIAN ETHICAL ORIENTATIONS: THE EFFECTS OF THE ENACTMENT OF AGENTIC VERSUS COMMUNAL SOCIAL ROLES

A Dissertation

by

JASON B. MACDONALD

Submitted to the Graduate School of the
University of Texas-Pan American
in partial fulfillment of the requirements for the degree of

DOCTORATE OF PHILOSOPHY IN BUSINESS ADMINISTRATION

April 2000

Major Subjects: International Business and Marketing

EXPLICATING SEX DIFFERENCES IN MARKETING MANAGERS' EGOIST VERSUS UTILITARIAN ETHICAL ORIENTATIONS: THE EFFECTS OF THE ENACTMENT OF AGENTIC VERSUS COMMUNAL SOCIAL ROLES

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ABSTRACT

MacDonald, Jason B., "Explicating sex differences in marketing managers' egoist versus utilitarian orientations: The effects of the enactment of agentic versus communal social roles" Doctorate of Philosophy in Business Administration (Ph.D.), April 2000, 252 pp., 38 tables, 5 illustrations, 168 references.

This study examines the issue of sex differences in ethical orientations and suggests that the enactment of social roles and the associated use of information processing strategies influence the presence of sex differences in managers' ethical orientations. Managers' ethical judgments and intentions to use punishments or rewards to encourage ethical behavior are the two dependent variables in the study.

A 3 (prime: gender- role, work-role, no role) by 4 (ethical condition: positive egoist/positive utilitarian, positive egoist/negative utilitarian, negative egoist/positive utilitarian, and negative egoist/negative utilitarian) experimental design was applied in the efforts to answer the main research question: What is the role of a subject's sex in the explanation of their ethical orientation? This design entailed the gathering of data from a probabilistic sample of 4000 U.S. managers. Two thousand of these managers were accounting and human resource managers and two thousand were sales and marketing managers. Furthermore, each group of managers was composed of 1000 males and 1000 females. The effective response rate for the survey was 11.2%.

The results of this research show that the influence of a subject's sex on their ethical orientation is most evident when a gender-role prime is present. When a gender role prime was not present, sex differences in ethical judgment and intention to punish or reward subordinate behavior were not significant. Furthermore, when subjects were exposed to a work role prime, those that occupied similar work roles did not differ in their ethical judgments and intentions based on their sex. Subjects that differed in their work roles, however, differed significantly in their ethical orientations. This suggests that a subject's ethical orientation is dependent on the social role they are enacting and because individuals generally enact multiple social roles, their ethical orientation is not inherent.

The teleology evaluation in this study was separated into egoist, or individual consequences, and utilitarian, or organizational consequences, so that the separate effects of these components on subjects' ethical judgments and intentions could be studied under the separate prime conditions. It was also found that the egoist component of the teleology evaluation, along with the ethical judgment variable, were the main predictors of intentions for subjects enacting agentic work roles. In contrast, the utilitarian variable and the ethical judgment variable were the main predictors of intentions for subjects enacting communal work roles. These findings lend credence to the effort to separate the teleology evaluation in the H-V model of ethics.

ACKNOWLEDGMENTS

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Although the members of my dissertation committee each helped in a number of different ways, I would like to acknowledge some of their specific contributions. Dr. Kaynak was especially helpful in directing me toward the use of hierarchical regression and the use of power analysis. Dr. LeMaster helped with the conceptualization of the study and with its readability, an arduous task given my writing style. Dr. Bill Strong contributed greatly through his insightful questions during the proposal defense which in turn led to a restructuring of the dissertation. Dr. Arturo Vasquez added tremendous insight in the area of ethics. His most significant contribution, however, was his patience in guiding me through the process of integrating a number of streams of literature into what I hope is a meaningful piece of research. Finally, I would like to acknowledge the contributions of my wife, Elsa MacDonald. Along with providing me with support, she made key contributions in conceptualizing the model, designing the questionnaire, and even in the collection of the data. I am greatly indebted to her for her help.

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CHAPTER I

INTRODUCTION

Unethical behavior in the workplace has become a serious and costly problem (Jones & Kavanagh, 1996). Managers are commonly faced with ethical issues that create dilemmas between their obligation to improve the economic performance of their organizations and their ethical obligations to persons internal and external to their companies (Kohut & Corriher, 1994). The sales profession is especially vulnerable to unethical conduct because salespeople commonly function without direct supervision and face role ambiguities and/or conflicts with customers, competitors, other departments, as well as the regulatory environment (Dawson, 1992).

Building a corporate culture that encourages ethical behavior is becoming a prominent concern of marketing management (Hunt & Vasquez-Parraga, 1993). One of the key factors in developing an ethical culture is having a supervisory system that rewards ethical behavior and disciplines unethical behavior (Hunt, Chonko, & Wilcox, 1984; Hunt & Vasquez-Parraga, 1993). These supervisory systems, however, need to be implemented by top management to be effective (Hunt, Chonko, & Wilcox, 1984) and consequently, an understanding of how these managers make ethical decisions becomes an issue. Understanding the process of ethical decision making at the managerial level

has been complicated, however, by research suggesting that this process differs for males and females. The finding that females, at times, exhibit a higher level of ethical orientation than males has led to the conclusion by some authors, such as Dawson (1995), Ferrell and Skinner (1998), Lane (1995), and Whipple and Swords (1992), that females are inherently "more ethical" than males. In turn, they suggest that part of the solution to enhancing the ethical behavior of business people is to simply increase the number of women in the profession. Although this reaction to the problem of unethical business practices is ill advised given the inconsistency of the findings, the literature provides only partial understanding as to why these inconsistencies in empirical findings exist.

Sex Issues in Business Ethics

The percentage of females enrolled in business schools and their subsequent employment in business settings has increased dramatically over the past twenty years (Smith & Oakley, 1997). In the United States, for example, "the number of women in business schools increased from approximately 9% of total enrollment in 1970 to 45% in 1990" (Smith & Oakley, 1997). These changes in the workforce have led to a focus on understanding sex differences in perceptions, expectations, and values of organizational members (Schminke & Ambrose, 1997).

The rapid growth in the number of women in business has generated several streams of research focusing on the role of sex in a variety of work-related areas (Smith & Oakley, 1997). More specifically, the role of an individual's sex in the determination of her/his ethical orientation, has been a topic of heated debate in a growing body of

literature (e.g., Robin & Babin, 1997; Callen, 1992; Dawson, 1997; Jones & Kavanagh, 1996).

Ford and Richardson (1994) found that sex is reported in more empirical studies than any other variable. Examination of the role of the sex variable has led, however, to inconsistent results and a lack of a consensus in the literature on its true effect. Study results suggest a state of 'moral schizophrenia' (Reilly & Kyj, 1990) in which sex differences range from being highly significant to highly insignificant.

Furthermore, much of the research on sex differences in ethical orientation has focused on the ethical judgment component of ethical orientation rather than managerial intention, even though behavioral intentions have been shown to be a better predictor of behavior (Ajzen, 1988). Additionally, the literature has focused primarily on finding evidence of the main effects of the sex variable rather than looking at the likely interaction effects of sex and other individual and organizational variables. Thus, little is known about the reasons why there are sex differences in ethical orientation among managers, and among sales managers in particular.

Research Questions

The main research issue of this study pertains to the role of a subject's sex in the explanation of their ethical orientation. Ethical orientation, in the context of this study, refers to subjects' ethical judgments and behavioral intentions in response to their exposure to a situation having ethical content. Unlike the many studies that have found significance of the sex variable by examining its main effects, this study attempts to explain that significance by examining the effect of sex with respect to its interaction with

social roles and the different strategies individuals use to process information. The term social role is used to refer to those shared expectations about appropriate qualities or behaviors associated with the enactment of an individual's role in society. Sex refers to the grouping of humans based on biological differences into two categories: females and males (Eagly, 1987). The term sex is not the same as gender, even though these terms are often interchanged in the literature. Gender refers to "the meanings that societies and individuals ascribe to female and male categories" (Eagly, 1987, p. 6). It should be noted that when this study refers to sex differences, it is to suggest females and males have been shown to differ on a particular measure.

Because of the complexity of the study, a number of supplemental questions must be answered in addressing the primary research question. First, are sex differences in ethical orientation due to differences in gender roles as suggested by the gender socialization approach? The term 'gender roles' refers to "those shared expectations that apply to individuals on the basis of their socially identified gender" (Eagly, 1987, p. 12). According to the gender socialization school of thought, the male's gender role differs from the female's gender role. The male gender role is suggested to be primarily agentic while the female gender role is said to be communal. Agency represents self-protection, self-expansion, and self-assertion. Communion represents affiliation, contact, openness, and union (Bakan, 1966). Thus, sex differences in ethical orientation arise because males and females are socialized to have different goals and values.

Second, do employee work roles affect subjects' judgments and intentions in a similar manner to that of gender roles? For example, do marketing managers, regardless of their sex, have different ethical judgments and intentions than accounting or human resource managers when confronted with the same ethical situation? These questions

follow the structural approach to explaining sex differences in ethical orientation which suggests that people are not limited to their gender roles and that the implementation of other roles, like work roles, are possible. Accordingly, when males and females occupy dissimilar work roles, their ethical behavior is also dissimilar. When males and females occupy similar work roles, however, sex differences in ethical behavior are not expected.

Third, are sex or work differences in ethical orientation due to differences in the type of information processing strategy associated with the particular social role they are enacting? Agentic and communal gender roles have been linked to two distinct types of information processing strategies: heuristic-based and detail-based. A heuristic is simply a rule of thumb. A heuristic-based information processing strategy uses rules of thumb as proxies for more comprehensive processing of information. In contrast, a detail-based strategy for processing information entails rather effortful, comprehensive, piecemeal analysis of all available information (Meyers-Levy, 1989a).

Objectives of the Study

This study analyzes the effects of social roles on sex differences in sales managers' ethical orientations. More specifically, it analyzes managers' use of situational constraints (punishments and rewards) in response to subordinates' behavior under various conditions. The three primary conditions included in this study are: (a) the social roles (gender, work, study subject role) enacted by the managers at the time of their

responses to the behaviors, (b) organizational or individual consequences, and (c) managers' ethical judgments of behaviors and their intentions to use punishments or rewards to influence subordinate behaviors.

This research is interested in providing better understanding for why sex differences in ethical behavior occur and thus, it is concerned with providing clarification of the debate on why sex differences in ethical judgments and behavior intentions are found. Furthermore, it is reasoned that by understanding why sex differences in ethical orientations occur it may be possible to understand why sales and marketing managers at times appear to have a lesser ethical orientation than other work roles in organizations.

Although attitudes have been a primary focus of the literature on sex differences in ethical orientation, intentions have been shown to be better predictors of behavior than attitudes (Ajzen, 1988). Consequently, measures of both behavioral intentions and attitudes are included in the primary objectives of this study.

- To analyze the effect of gender-role primes on the presence of sex differences in managers' ethical judgments and behavioral intentions to use punishments or rewards to enhance the ethical behavior of subordinates.
- 2. To analyze the effect of work role primes on the presence of sex differences in managers' ethical judgments and behavioral intentions to use rewards or punishments to enhance the ethical behavior of subordinates.

The terms 'gender-role prime' and 'work-role prime' found in the first two study objectives, refer to an experimental technique used for controlling the social role enacted by the study subjects. "Priming involves the effects of prior context on the interpretation of new information" (Whittler, 1994, p. 2). Once the role being primed for is enacted, decisions about experimental stimuli will be made from that perspective. Priming subjects with a gender-role prime, for example, would stimulate them to process information and respond to questions as if they were enacting their appropriate gender role. Role priming is needed because the research setting has been found to stimulate females and males to enact a more ambiguous but common role of the study subject rather than the different social roles that they would normally enact in natural settings (Eagly, 1987; Deaux, 1984). Consequently, the results of empirical studies that examine sex differences, but do not control for the role being enacted, may be ambiguous.

Demonstrating the effect of social roles on ethical orientation does not, however, provide an understanding for why the effect occurs. In an effort to provide an even greater understanding of this effect, the following complementary objectives are proposed:

To analyze the effect of organizational and individual consequences on managers'
ethical judgments and behavioral intentions when subjects are enacting agentic
versus communal roles.

4. To examine the relationship between ethical orientation and the use of information processing strategies.

Contribution of this Study to the Literature

Unfortunately, the research into the role of sex in the determination of individuals' ethical orientation is largely atheoretical (Franke, Crown, & Spake, 1997). Even those studies that include comprehensive reviews of the approaches to explicating the role of sex (e.g., Robin & Babin, 1997; Dawson, 1997, 1992; Mason & Mudrack, 1996; Smith & Oakley, 1997) focus more on whether gender differences exist, rather than on why they exist. This lack of focus on providing understanding of the role of sex persists even after numerous challenges to the literature to focus more on explaining behavior rather than simply providing documentation of the effect. Chonko and Burnett (1983), for example, in studying the connection between ethical issues and salespersons' role conflicts, suggest that future research should focus not only on questionable behaviors, but also upon understanding how such behaviors relate to existing behavioral science theory.

Incorporating behavioral science theories, such as gender socialization and organizational socialization into the gender differences in ethical orientation literature is of little use if it is not combined with solid research methodologies. A general lack of experimental rigor, however, is another problem that plagues the study of ethics in business (Ford & Richardson, 1994; Hunt & Vitell, 1986; Randall & Gibson, 1990). This study addresses these deficiencies in the literature by incorporating an experimental research design to test the prevailing theories of sex differences in ethical orientation.

Although the focus of this study is on explicating the role of the sex variable in the study of ethics, it will also have an impact on other research streams. In the general study of ethical decision making, Hunt and Vitell (1986) suggest that both deontological and teleological evaluations are part of the ethical judgment process and that ethical intentions are commonly composed of ethical judgments and teleological evaluations. The primary focus of teleological theories is the amount of good or bad embodied in the consequences of the behavior whereas, deontological theories focus on the inherent rightness or wrongness of the behavior itself (Hunt & Vitell, 1986).

Hunt and Vitell's (1986) research into ethical decision making was extended by Hunt and Vasquez-Parraga (1993) and Vasquez (1990) to incorporate the effect of organizational consequences (deontological and teleological considerations) on managers' ethical judgments and intentions to enhance ethical conduct through the use of punishments and rewards. This study serves as a test of the research on ethical decision making by experimentally testing the Hunt and Vitell (1986) model with the dependent measures of managers' ethical judgments and intentions used by Hunt and Vasquez-Parraga (1993).

This research also extends the research on ethical decision making by providing a closer examination of the effects of teleological evaluations on ethical outcomes. This is accomplished by splitting the teleological evaluation into its two bipolar components: the egoist and the utilitarian. Egoism argues that an act is ethical when it promotes the individual's best long-term interests. Utilitarianism contends that an act is ethical when it promotes the best interest of everyone involved in the action (Almonde, 1998).

Additionally, evidence provided by experimental research in the area of consumer behavior suggests that focusing on diametrically opposed goals, such as self and other represented by the egoist and utilitarian positions, respectively, requires different information processing strategies (Meyers-Levy, 1989b; Meyers-Levy & Maheswaran, 1991; Meyers-Levy & Sternthal, 1991). Linking the use of egoist and utilitarian consequences in a given deontological position with information processing strategies will add to the generalizability of the information processing theory as well as provide additional understanding of the ethical decision making process.

Finally, this study draws on a wide range of literature such as ethics, economics, consumer behavior, marketing, management, philosophy, psychology, and sociology. Although this approach is thought to be beneficial for the purpose of providing understanding, it may also present a problem for the reader. More specifically, cross referencing numerous areas of research results in the use of field specific terms that may be confusing. In an attempt to remedy this potential problem, a definition of terms section has been provided in Appendix A for quick reference to selected terms that receive attention in the study.

CHAPTER II

LITERATURE REVIEW

This chapter presents an integrative review of the literature related to sex differences in ethical orientation. The purpose of an integrative review is to summarize past research by drawing overall conclusions from separate studies that are believed to address related or identical hypotheses (Cooper, 1989). This type of literature review was considered to be especially applicable to this study because of its interdisciplinary focus.

The structure of the literature review was determined primarily by the research objectives that were presented in Chapter I. The review opens with a discussion of ethical orientation. In this section, many of the terms and concepts that will be used are defined and discussed in the context of the study. The initial section on ethical decision making is followed by a review of the literature on the role of the sex variable in the determination of a subject's ethical orientation. The reader is then presented with a comparative review of the two dominant explanations of sex differences in ethical orientation, the gender socialization approach and the structural approach. Empirical evidence illustrating the effects of social roles, which are the main focus of both the socialization approach and structural approach, on ethical judgments is presented in the following section. The concept of agentic and communal work roles is then introduced and discussed with respect to their effects on the presence of sex differences in ethical

orientation. Finally, empirical research findings on gender differences in information processing are discussed in terms of the theories on sex differences in ethical orientation. Propositions and hypotheses are presented after the sections of the literature review from which they were derived.

The inclusion of propositions, in addition to hypotheses, was done to avoid running the risk of testing research hypotheses that cannot in fact be derived from the lawlike statements that comprise the theory. Propositions are presented in this study as bridge laws. "Bridge laws indicate how the process envisaged by the theory are related to empirical phenomena with which we are already acquainted, and which the theory may then explain, predict, or retrodict" (Hemple, 1966, p. 72). Thus, the purpose of using bridge laws is to essentially bridge the gap between the general laws associated with a particular theory and the specific classes of empirical phenomena under investigation (Hunt, 1991).

Although bridge laws are a necessity for all research which purports to test some theoretical construction, they are not testable in themselves. For the purposes of empirical testing, hypotheses need to be developed. These hypotheses, however, are derived directly from the bridge laws rather than the theory itself. To add to the readability of the study, a summary list of all objectives and associated propositions and hypotheses is presented in Table 2.3. Finally, the research model summarizing the hypothesized relationships is presented at the end of the chapter.

Ethical Orientation

Ethics has been defined as an "inquiry into the nature and grounds of morality where the term morality is taken to mean moral judgments, standards, and rules of conduct" (Taylor, 1975, p. 1). Although there are numerous normative theories of ethical philosophy, most can be classified as either teleological or deontological (Murphy & Laczniak, 1981). Teleological and deontological theories are also referred to as consequential and nonconsequential theories because of how they evaluate the ethicalness of behavior (Tsalikis & Fritzsche, 1989). The primary focus of teleological theories is the amount of good or bad embodied in the consequences of the behavior. "Deontological views of ethics hold that some things ought to be done or ought not to be done, without reference to the results to be expected from doing or omitting to do them" (Scarre, 1996, p. 12). Deontologists would insist, for example, that telling a lie is an evil or intrinsically wrong thing even if the lie will prevent someone from experiencing serious personal pain. Although the literature also refers to multiple-rule nonconsequential theories that claim to be autonomous concepts (e.g., Rawl's (1971) maximin principle of justice, and Garrett's (1966) principle of proportionality), each of these theories are the product of combining the fundamental teleological and deontological components.

In contrast to teleologists, strict deontologists do not consider the value of the consequences of an act in their assessment of the ethicalness of the act. Rather, they focus on how certain features of the act meet the accepted rules or norms that are used to judge rightness or wrongness (Hunt & Vitell, 1986). The golden rule of doing unto others as you would like them to do unto you, for example, or Kant's categorical imperative that

suggests that we should act in a way that we could wish the principle of our action to become a universal law for ethical behavior (Tsalikis & Fritzsche, 1989). Under the Kantian system, duty refers to whatever one morally ought to do rather than what should be done for the sake of satisfying outside expectations (Barron, 1995).

Hunt and Vitell's (1986) theory of ethics (hereinafter referred to as the H-V model) proposes that people are not simply teleologists or deontologists, but rather ethical acts are evaluated on the basis of a combination of considerations of the separate components (Hunt & Vasquez-Parraga, 1993). The first step in determining what aspects of the situation should be considered is the recognition that the situation actually has ethical content. Once the individual perceives that they are faced with an ethical problem, they generate a set of possible alternatives. These alternatives are in turn evaluated from a deontological and teleological perspective. The result of this evaluation may result in an ethical judgment and a behavioral intention.

Ethical Judgments and Behavioral Intentions

The H-V model suggests that the primary path between teleological evaluations and deontological evaluations to behavioral intentions is through ethical judgments. Empirical tests of the model show the relationship between ethical judgment and behavioral intention to be quite strong with Hunt and Vasquez-Parraga (1993), Mengüç, (1998), and Vasquez-Parraga and Kara (1995) finding the relationship to be highly significant. The H-V model also suggests a direct route to intentions from teleological evaluations to allow for those cases where the benefits of the consequences of an act are

so great, relative to the possible deontologically unethicalness of the behavior, that intentions are formed without ethical judgments (Hunt & Vasquez-Parraga, 1993).

Although there is little information on the formation of intentions without judgments in the marketing literature, the process has been well researched in the psychology literature (Halpern, 1992).

Punishments, Rewards, and Ethical Behavior

Although the objects of subjects' intentions are not specified in the H-V model, managers' intentions to use punishments or rewards to enhance ethical behavior have been the focus of studies that tested the model empirically (Hunt & Vasquez-Parraga, 1993; Mengüç, 1998; Vasquez-Parraga, 1990). Punishment-reward policies are said to be one of the paramount managerial subsystems in management intervention in organizational behavior (Vasquez-Parraga, 1990). Through punishments or rewards systems, managers can encourage or discourage their employees from pursuing certain collective outcomes. Both intrinsic and extrinsic rewards are used to reinforce wanted behaviors (Herzberg, 1982). In contrast, punishments are used to curb unwanted behaviors. The role of punishments to curb salespersons ethical conduct was studied by Bellizzi and Hite (1989). They found that the sales managers use more severe punishments when poor performers, negative consequences, and salespeople are involved in unethical selling behavior (Vasquez-Parraga, 1990).

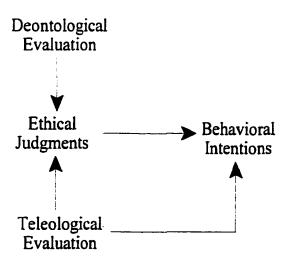
Hunt and Vasquez-Parraga (1993) studied the use of punishments and rewards and found that rewards, like punishments, varied depending on the salesperson's

performance, organizational consequences, and the ethicalness of the behavior.

Furthermore, Hunt and Vasquez-Parraga (1993) found that there is a positive relationship between managers' ethical judgments and their intentions to reward or punish salespersons' behavior. In addition, their research suggests that there is a relationship between managers' teleological evaluations and their intentions to reward or punish salespersons' behavior. The relationship between the evaluation of alternatives process, ethical judgment, and behavioral intention form the core of the H-V model that is represented in Figure 2.1.

Figure 2.1

Core Relationships of the Hunt-Vitell Theory of Ethics



Source: Hunt and Vasquez-Parraga (1993).

Consequentialism and the H-V Model

It is important to note that both the teleological and deontological approaches to ethics can generally lead to similar ethical conclusions. Deontologists may conclude that stealing is wrong because it breaks a moral law. A teleologist may also agree that stealing is wrong but based on the typical negative impact of this practice on human welfare, not its intrinsic wrongness. Differences arise between the two ethical approaches, however, when doing the normally wrong thing is likely to have positive consequences (Hunt & Vasquez-Parraga, 1993; Scarre, 1996). Differences in the ethical approaches are also created by the bipolar nature of the teleology. As previously stated, teleology entails an assessment of good-to-evil ratio of a behavior's consequences. This assessment, however, may be done with respect to the individual or to all those involved. These two separate approaches to teleology are termed egoism and utilitarianism, respectively. The unique nature of teleology, along with explanations of the egoism and utilitarianism teleological approaches, is discussed in more detail in the following paragraphs.

It is quite easy to misrepresent the character of consequentialism if the terms used to describe the theories are taken at face value. For example, in its crude application, some may suppose that for consequentialists it is not actions themselves but only their consequences, in the sense of their further effects, which are morally significant (Scarre, 1996). The original point of the term consequentialism, however, was not to signal the contrast between actions and their results. Rather, it was to signal

the contrast between judging the moral qualities of actions on the basis of their agreement with some specified set of moral laws, rules or principles, and judging it according to their consequences for the promotion of a particular set of values (Scarre, 1996, p. 11).

Thus, the fact that consequentialists reject the Kantian view of morality does not suggest that they do not judge an action solely on the basis of its consequences without regard to the agent's intended outcomes (Scarre, 1996). A consequentialist, for example would not condemn a person's actions that led to the death of another, if that person's intention was to save the other's life. Brandt (1979) summarized this position in stating, "It normally makes no difference where we draw the line between actions and their consequences as long as the utility of the act itself is counted along with the utility of the consequences" (p. 271).

Utilitarianism. Utilitarianism is not so much a single theory of morals as a family of theories, of markedly differing sophistication and plausibility (Scarre, 1996).

Utilitarian theories agree that the good, in the good-to evil ratio, is utility, though they differ in their accounts of what utility is; they also differ, as to whether it is the total utility, or the average utility of individuals, that should be maximized (Scarre, 1996). The common theme in all theories of utilitarianism, however, is that an act is ethical when it promotes the best interest of everyone involved in the action (Almonde, 1998). For example, a utilitarian would not condemn a person for lying if the lie helped protect another person's life. In this situation the harm done by the lie would be greatly outweighed by the fact that a person's life was saved.

Egoism. Egoism is a non-utilitarian form of consequentialism which evaluates outcomes according to their propensity to enhance the agent's own welfare (Scarre, 1996). As in the study of utilitarianism, egoism comes in many forms. Psychological egoism, for example, suggests that it is human nature for people to only pursue pleasure. If people are faced with the choice between two courses of action, "they will always choose the one they believe will provide the greater balance of pleasure over pain" (Almonde, 1998, p. 26). Ethical egoism recommends self-interest as a moral policy. To the ethical egoist, their own personal interest is at the center of the moral world (Almond, 1998). Rational egoism, in contrast, recognizes that what is in my best interest, may not produce the most immediate pleasure. A rational egoist, therefore, may appear to adopt moral behavior even though they are still acting selfishly (Almonde, 1998). The common theme of all forms of egoism, therefore, is the focus on the consequences of the act for the good of the individual rather than for the group.

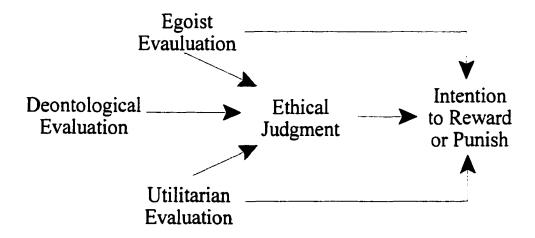
Expanding the H-V Model

Although teleological evaluations are represented in the H-V model as a single variable, it was reasoned that the model would be improved, at least from a conceptual standpoint, if the two bipolar teleology components were represented separately. This would also be beneficial from an empirical perspective in that the separation would allow for the study of the effects of utilitarian versus egoist consequences on managers' ethical judgments and behavioral intentions. Figure 2.2 represents an expansion of the basic H-V model to include the separate egoist and utilitarian evaluations.

The intention variable has been limited to managers' intentions to reward or punish subordinates' behavior. A positive relationship between ethical judgments and behavioral intentions would suggest an increase in rewards whereas a negative relationship between these two variables would suggest a decrease in rewards and an increase in punishments.

Figure 2.2

Expansion of the Hunt-Vitell Theory of Ethics to Include
Egoist and Utilitarian Evaluations



In the following section, an overview of the empirical studies on sex differences in ethical orientation will be presented. Although a number of the articles reviewed were published before the H-V model, their focus on ethical judgments and/or behavioral intentions is consistent with the previous discussion on ethical orientation.

Empirical Evidence of Sex Differences in Ethical Orientation

The sex variable has been one of the most commonly included variables in empirical ethics studies (Ford & Richardson, 1994). The sex variable is also referred to as gender, gender role, gender-role stereotype, and sex role. Given this confusion in semantics, it is important to point out the differences in these terms before discussing the literature on this subject. "Gender roles are defined as those shared expectations (about appropriate qualities and behaviors) that apply to individuals on the basis of their socially identified gender" (Eagly, 1987, p. 12). Although the term sex role refers to the same basic qualities and behaviors as the term gender roles, it has been argued that the gender role term is preferable because it places more emphasis on societal differences than biological differences (Halpern, 1992).

To get a general perspective of the significance of the sex variable, this study identified and analyzed ethics articles from the business literature that contained sex as an independent variable. A thorough search of the ABI/Inform data base as well as extensive reviews of bibliographies of articles from before 1986 uncovered 50 studies. The sample of studies was restricted to journal articles that focused on ethical judgments (including attitudes, beliefs, and perceptions), behavioral intentions, and/or behaviors related to ethical behavior.

Articles published in conference proceedings and dissertations were not included so that the sample could be considered more consistent with respect to its subjection to rigorous peer review. Studies that focused on moral reasoning were not included because the link between ethical reasoning and behavior is much weaker than the link between

judgments or behavioral intentions and actual behavior (Bommer, Gratto, Gravander, & Tuttle, 1987).

Although the search cannot be called exhaustive, it compares well with similar reviews that have been recently published. Robin and Babin (1997), for example, used a sample of 36 in their critique of the research findings on gender differences in business ethics. The meta-analysis conducted by Franke et al. (1997) represents a more comprehensive review of the literature on gender differences in business ethics. It is based on a sample of 66 studies including published and unpublished articles and dissertations. Given that eight of the articles in Franke et al. (1997) were unpublished or from dissertations of conference proceedings, the 50 articles sample used in this study is suggested to be sufficient. Table 2.1 includes the authors, as well as a brief summary of research design (including design type, dependent variable, sample type and size, and instrument history) and results of each study reviewed. An explanation of the procedures used to structure and report results in Table 2.1 can be found in Appendix B. The results of the overview of the literature on gender differences in ethical orientation are found in Table 2.2.

Table 2.1

Articles that Investigate Gender Differences in Ethical Behavior

		Type of Research	Dependent variable	Origin of the instrument	Sample Type	Sample Size	Sig. Gender Differences?	Gender Interaction Effects?
	Author(s)							
_	Akaah (1989)	exploratory	ethical judgment	developed within	managers	420	yes	none examined
_	Ameen et al. (1996)	exploratory	ethical judgment	developed internally	student	285	yes	none examined
	Arlow (1991)	exploratory/ questionnaire	ethical judgment	Meising & Preble (1985)	UG students	138	yes, on 4 of 5 ethical dimensions	none examined
	Barnett & Karson (1989)	exploratory/ scenario/ questionnaire	intention	developed within and the Bem Sex Role Inventory (Bem 1977)	insurance company employees	513	yes, for 6 of 10 scenarios	gender X Bem gender X role gender X methods/results
_	Beltramini et al. (1984)	exploratory	ethical judgment	developed internally	students	2856	yes	none examined
_	Betz et al. (1989)	exploratory	ethical judgment	developed internally	students	213	only means	none examined
_	Borkowski & Ugras (1992)	exploratory/ scenarios/ questionnaire	ethical judgment & intention	developed internally	Grad & UG students	130	yes	gender interaction was found but no detailed
	Callan (1992)	exploratory/ questionnaire	ethical judgment	developed internally	state employees	226	yes	none examin
_	Chonko & Hunt (1985)	exploratory/ questionnaires	ethical judgment	developed internally	marketing managers	462	yes	none examined
	David et al. (1994)	exploratory/ questionnaire	ethical judgment	developed internally	accountants	161	yes, on five of 12 ethical issues	none examined
_	Davis & Welton (1991)	exploratory/ questionnaire	ethical judgment	developed internally	UG students	391	yes, on four of 17 statements	none examined
-	Dawson (1992)	exploratory/ scenarios/ questionnaire	ethical judgment	taken from the literature	UG students	89	yes for relational senarios, no for non-relational	none examined

	Dawson (1997)	quasi-exp./ scenarios	ethical judgment	developed internally	no	203	yes	gender X relational/non- relational gender X age gender X expience
_	Dubinsky et al. (1992)	exploratory/ scenarios/ questionnaire	ethical judgment	Dubinsky et al. (1980)	salespeople	218	no	none found
_	Fritzsche (1988)	quasi-exp./ scenarios	intention	yes	no	717	no	gender X conflict of interest gender X bribery
	Gautschi & Jones (1998)	quasi-exp./ scenario/ open-ended question	ethical judgment	developed internally	students	84	no	none examined
-	Harris (1990)	exploratory/ scenarios/ questionnaire	ethical judgment	Harris (1989)	managers from diff. org. levels	112	yes, one of 5 measures (self- interest)	none
_	Harris & Sutton (1995)	exploratory/ questionnaire	ethical judgment	Harris (1990)	MBAs & executives	1085	yes, for MBAs across 4 of 5 constructs	none found
_	Hegarty & Sims (1978)	experimental	behavior	developed internally	Grad students		no	none examined
_	Hegarty & Sims (1979)	experimental	behavior	developed internally	Grad students	(1) 74 (2) 91	(1) no (2) no	(1) none (2) none
	Jones & Kavanagh (1996)	quasi-exp./ scenarios	intention	developed internally	students	154	no	none examined
-	Jones & Gautsche (1988)	exploratory/ scenarios/ questionnaire	ethical judgment& intention	developed internally	students	445	yes	none examined
_	Jones & Hiltebeitel (1995)	exploratory/ questionnaire	ethical judgment	Hiltebeitel and Jones (1991)	accountants	250	yes	none examined
_	Kelley et al. (1990)	exploratory/ questionnaire	ethical judgment	developed internally	no	550	yes, females perceived themselves to be more ethical	none examined

	Khazamchi (1995)	exploratory/ scenarios/ questionnaire	ethical judgment	developed internally	students	134	yes, females recognized disclosure, integrity and conflict of interest ethical dilemmas better	none examined
	Kidwell et al (1991)	exploratory/ questionnaire	ethical judgment	developed internally	managers	100	no	none examined
•	Kohut & Corriher (1994)	exploratory/ scenarios/ questionnaire	ethical judgment	developed internally	MBA students	86	yes, females were more ethical on 14 of 16 scenarios	none examined
25 .	Laczniak & Inderrieden (1987)	quasi-exp./ scenarios	ethical judgment	developed internally	students	113	no	gender X experience males become more unethical
	Lane (1995)	exploratory/ scenarios/ questionnaire	intention	developed internally	UG students from Australia	412	yes, for 8 of 13 situations	none examined
•	Luther et al. (1997)	quasi-exp.	ethical judgment	developed internally	students	691	yes, females favored more ethical work climates	None
•	Malinowski & Berger (1996)	exploratory/ scenarios/ questionnaire	ethical judgment & intention	developed internally	UG students	403	yes, females more ethical on 23 of 27 dilemmas	none examined
	Mason & Mudrack (1996)	exploratory	ethical judgment	developed internally	students	187	yes, females were more ethical	gender X employment status
•	McCuddy et al. (1996)	quasi-exp.	ethical judgment	developed internally	students	171	no	none examined
•	McDonald & Kan (1997)	exploratory/ scenarios/ questionnaire	ethical judgment	developed internally	MBA students & MBA alumni in Hong Kong	1224	yes, 2 of 14 scenarios were sig.	none examined

McNichols & Zimmerer (198	5) quasi-exp./ scenarios	ethical judgment	developed internally	students	1130	no	none examined
Miesing & Preble (1985)	exploratory/ questionnaire	ethical judgment	Stevens (1979)	non-students, MBAs, & UG students	487	yes	none examined
Peterson et al. (1991)	exploratory/ questionnaire	ethical judgment	Beltramini et al. (1984)	students	1681	yes, females more concerned with business ethics	none examined
Ruegger & King (1992)	exploratory/ scenarios/ questionnaire	ethical judgment	developed internally	students	2196	yes, females more ethical in four of 6 categories	none examined
Schminke (1997)	exploratory/ scenarios/ questionnaire	ethical judgment	developed internally	students	165	no	gender X gender of person in test scenario
Schminke & Ambrose (1997)	quasi-exp./ questionnaire	intention & ethical judgment	developed internally	managers and MBAs	175	yes, males and females employed different ethical frameworks	gender X framework X scenario implied
Serwinek (1992)	exploratory/ scenarios/ questionnaire	ethical judgment	developed from Kidwel et al. (1987), Wood et al. (1988), Brenner & Molander (1977), & Vitell & Fester vand (1987)	insurance agents	415	yes, on 3 of 4 indicies	none examined
Shepard & Hartenian (1990)	exploratory/ questionnaire/	intention	developed internally	students	142	yes, females more ethical for 3 of 4 scenarios	none examined
Sims & Keenan (1998)	exploratory/ questionnaire	intention	developed from Sims (1994)	students	248	yes	none examined
Sikula & Costa (1994)	exploratory/ scenarios/ questionnaire	ethical judgment	Rokeach Value survey (Rokeach 1968)	students	171	no	none examined

	Smith & Oakley (1997)	quasi-exp./ scenarios/ questionnaire	ethical judgment	developed from Longenecker et al. (1989) & Molander (1977)	students	318	yes, for interpersonal issues but not for rule based issues	gender X issue is implied but was not calculated
	Stanga & Turpin (1991)	exploratory/ scenarios/ questionnaire	intention	developed internally	students	151	yes, 1 of 5 scenarios was sig.	none examined
	Tsalikis & Ortiz- Buonafina (1990)	exploratory/ scenarios/ questionnaire	ethical judgment	Reidenbach and Robin (1988)	students	175	no, females were more ethical on 1 of 4 scenarios	gender X senario maybe
27	Whipple & Swords (1992)	exploratory/ scenarios/ questionnaire	ethical judgment	developed from Crowford (1970), Akaah & Riordan (1989), & Akaah (1989)	US & UK students	319	yes, females were more ethical on 5 of 11 scenarios	gender X country was not sig.
•	Wiley (1998)	exploratory/ questionnaire	ethical judgment	1992 Ethical Issues in Human Resources Management survey	employment managers	103	sig. for seriousness of ethical acts, males found it more unethical to hire an unqualified person	none examined

Research Designs of Sex Differences in Ethical Orientation Articles

TYPE OF				
RESEARCH STUDY FEATURES	Pre-experimental (questionnaire only) (20) ^a	Pre-experimental (scenarios) (18)	Quasi-experimental (10)	Experimental (laboratory) (2)
	10/20 b	14/18	8/10	2/2
Student Samples	(100%)°	(79%)	(25%)	(100%)
Manager	10/20	4/18	2/10	0/2
Samples	(80%)	(75%)	(100%)	(0%)
	18/20	16/18	8/10	0/2
Ethical Judgment	(89%)	(69%)	(50%)	(0%)
	2/20	6/18	3/10	0/2
Intention	(10%)	(100%)	(67%)	(0%)
_	0/20	0/18	0/10	2/2
Behavior	(0%)	(0%)	(0%)	(100%)
Instrument	13/20	10/18	9/10	2/2
Developed Within	(85%)	(90%)	(22%)	(0)
Instrument				
Developed from	7/20	8/18	1/10	0/2
Literature	(100%)	(63%)	(100%)	(0%)

Notes:

Table 2.2

Research Design and the Significance of Sex

One of the most striking findings of the literature review is that the majority of the studies reviewed (76% or 38/50) were pre-experimental. Only 24% (12/50) could be considered quasi-experimental, meaning that some form of control was used in the research design. Finally, only 4% (2/50) of the studies were laboratory experiments. This result may appear as a surprise for some who have reviewed, at least to some degree, the gender differences in ethics literature since some of the studies that use scenarios are presented as if they were experiments. Betz et al. (1989), for example, is frequently cited

^aThe number in parentheses under each research design heading represents the total number of studies included in that type of research design.

This indicates the number of studies for each type of research design that includes the feature being examined.

^CThe percentages that appear in parentheses refer to the percentage of studies including the feature being examined that found significant sex differences.

in support of the existence of gender differences in ethical orientation. This study, however, simply administers a survey to a group of males and females to measure their attitudes and then draws conclusions about gender differences based on reported means rather than using t-tests or analysis of variance (ANOVA).

With respect to the finding of sex differences in ethical orientation across research designs, 84% (32/38) of the pre-experimental studies found sex to be significant on at least one measure. Only four of 12, or 30% of the experimental studies, however, found the sex variable to be significant.

Sample Selection and the Significance of Sex

Although authors such as Hunt and Vitell (1986) and Randall and Gibson (1990) have criticized the ethics literature for its use of student samples, only 32% (16/50) of the studies used non-student samples. Of even greater concern is the finding that only 16% (2/12) of the quasi-experimental studies used managers. A strong case could be made for the use of student samples if the purpose was to test theory. Very few of the studies reviewed, however could even be considered quasi-experimental. Therefore, the validity of using student samples is lessened to those cases where the purpose of the study was to investigate the ethical orientation of students.

Close examination of the finding of significance of the sex variable by type of sample reveals that 68% (23/34) of the student-sample studies found sex to be significant while 81% (13/16) of the studies that use manager samples found sex to be significant.

With respect to the quasi-experimental studies, 16% (2/12) of the student-sample studies

found significance while all of the quasi-experimental studies that used manager samples found sex to be significant. Unfortunately, the limited number of experimental studies in the sample restricts the degree of interpretation that can be used in assessing the meaningfulness of the results.

Dependent Measures and the Significance of Sex

Even though there is a large body of literature that suggests that intentions are much more related to actual behavior than ethical judgment (Ajzen, 1988; Hoyer & MacInnis, 1997; Mowen & Minor, 1997; Robin & Babin, 1997), a majority of the studies in the sample, 84% (42/50), focus on ethical judgment rather than behavioral intention. Only 22% (11/50) of the studies focused on or included a measure of behavioral intention. This is a puzzling finding since collecting data on behavioral intentions should not entail any more effort than collecting data on ethical judgments.

With respect to the finding of significant sex differences across different dependent measures, 74% (31/42) of the ethical judgment studies and 91% (10/11) of the behavioral intention studies found the sex variable to be significant. The sex variable was not found to be significant in the two laboratory experiments that measured behavior rather than judgment or intention.

Instrument Development and the Significance of Sex

The majority of the studies reviewed, 68% (34/50), used instruments that were not taken from, or based on, previous literature findings. Furthermore, only 8% (1/12) of the

quasi and true-experimental studies based the development of their research instrument on the literature. Studies that did, or did not refer to the literature in the development of their research instruments were also reviewed. Sixty-five percent (22/34) of the studies that developed their instruments found sex to be significant, while 81% (13/16) of the studies that referred to the literature in the development of their research instrument found significant sex differences in ethical orientation.

Comparing Reviews of the Literature

Robin and Babin (1997) reviewed the gender differences in ethical orientation literature that employed the use of scenarios. The result of their review was the suggestion that sex differences in ethical behavior are largely inconsequential and should therefore be discarded because they do not have practical significance. In making this claim, however, the authors are not truly taking into account the effect that traditions of measurement and observation of an area of study have on the magnitude of the findings. Unreliable and invalid measures lower the magnitude of findings and the percentage of variability that can be explained (Eagly, 1995). This is especially true of ethics research in general (Hunt & Vitell, 1986; Randall & Gibson, 1990) and ethics research dealing with gender differences (Ford & Richardson, 1994). Furthermore, Robin and Babin (1997) do not distinguish between the different types of research designs employed by the studies that they reviewed. Because 76% (38/50) of the research reviewed by this study was not of the experimental research design type, and most of these were included in Robin and Babin (1997) review, the usefulness of their results are questionable.

Franke et al. (1997) performed a meta-analysis on 66 studies containing data from 20,000 respondents. They found that sex differences in ethical orientation in students declined as work experiences of samples increased. Franke et al. (1997) also found that differences by sex or the actor of the target of the behavior are not contingent upon whether the behavior involves personal relationships.

Although the meta-analytic design of the Franke et al. (1997) study can be considered to be superior, from a methodology perspective, to the review by Robin and Babin (1997), the Franke et al. (1997) study suffers from a similar deficiency. As in Robin and Babin (1997), Franke et al. (1997) placed little emphasis on the fact that many of the studies in their sample use simplistic research designs. Consequently, the results of their meta-analysis may also be misleading even though Franke et al. (1997) confidently state "Our results suggest that further research assessing only this question is unwarranted: on average, women do show higher ethical standards than men" (p. 928).

The review provided in this study was restrained by many of the same problems that Franke et al. (1997) and Robin and Babin (1997) encountered. The most important being the general lack of studies that employed an experimental research design. It was demonstrated in this study, however, that the meaningfulness of the analysis of past research on sex differences in ethical orientation can be improved by identifying the results of reviewed work by research design. Even when the analysis in this study was restricted to quasi-experimental research, 40% of the studies found sex to be significant on at least one measure. Given this finding, it is difficult to conclude that sex differences in ethical orientation are merely trivial.

Explicating Sex Differences in the Ethical Orientation Literature

Two broad explanations for the role of gender in ethical orientation can be found in the literature (Ameen et al., 1996; Betz et al., 1989; Callan, 1992; Dawson, 1995, 1997; Franke et al., 1997; Robin & Babin, 1997; Stanga & Turpin, 1991), the gender socialization approach and the structural approach. The gender socialization approach suggests that males and females follow distinct gender roles (Bakan, 1966; Bussy & Maughan, 1982; Gilligan, 1982) while the structural approach suggests that people occupy multiple roles, such as work roles, that can override the gender ideologies (Betz et al., 1989; Eagly & Johnson, 1990; Feldberg & Glenn, 1979; Kanter, 1977; Mason & Mudrack, 1996). To assess which approach provides a better explanation of sex differences, with respect to the level of understanding and prediction, these two approaches will be discussed in detail in the following sections.

The Socialization Approach

The gender socialization school can be traced as far back as the work of Freud, Piaget, and Mead (Dawson, 1992). This work was continued by authors such as Stoller (1964) and Chodorow (1978) who described how gender identity was established in early childhood and later by Lever (1978) who discussed how sex differences in personality formation are further reinforced in middle childhood. Despite the contribution of earlier authors, however, references to the gender socialization school most commonly reflect the work of Gilligan (1982, 1987) who suggests that males and females differ in the way

that they solve moral dilemmas (Robin & Babin, 1997). According to Gilligan (1982), males consider moral issues from a justice perspective whereas females look at moral issues from a caring perspective.

Gilligan's view of moral development was a serious departure from previously held beliefs proffered by Kohlberg (1971). Kohlberg (1971) applied cognitive-development theory to the moral development of adolescents, identifying three separate levels of moral development with each level containing two stages. Kohlberg's study of subjects over a 20-year period resulted in a six-stage model of moral development focused on the development of a "just-community approach" to moral education (Borkowski & Ugras, 1992). Unfortunately for Kohlberg, he came to his conclusions using a sample that consisted of males only. This was a fact that Gilligan was quick to point out in her contention that Kohlberg did not fully capture certain gender specific concepts of morality (Jones & Hiltebeitel, 1995).

Gilligan's work was also longitudinal in nature, but focused on the moral dimension of gender socialization (Dawson, 1997). Gilligan suggests that females' identity is defined in the context of relationships of intimacy and care, with the judgment of morality based on a standard of inclusion and an injunction against hurting others. In contrast, identity for males is more individualistic and logical, with morality being defined in terms of objective standards, reasoned compromises, and rational resolution of competing claims (Dawson, 1992). From this analysis emerges Gilligan's "different voice" of men and women:

Women's conception of morality as concerned with the activity of care centers moral development around the understanding of responsibilities and relationships, just as men's conception of morality as fairness ties moral development to the understanding of rights and rules (Gilligan, 1982, p. 19).

In summary, the socialization hypothesis is that males and females will respond differently to the same set of occupational factors (Lueptow, 1981; Veroff, 1977) because of their differences in moral orientation (Gilligan, 1982, 1987). Empirical evidence in support of this hypothesis has been provided by a number of authors who claim that females are more ethical than males. Of the more commonly cited student sample studies, Beltramini, Peterson, and Kozmetsky (1984), Betz et al. (1989), and Jones and Gautsche (1988) found significant differences between males and females on ethical judgment. Studies using managers can also be found in support of the gender socialization process. Akaah (1989), Chonko and Hunt (1985), Ferrell and Skinner (1998), all found evidence of a higher standard of ethical judgment by females.

There are, however, numerous studies that did not find significant sex differences in ethical orientation, especially when managerial samples are used in combination with advanced research designs. This would appear to be a serious challenge to the gender socialization theory. The concept of self-selection, however, has been used to explain the discrepancies. Self-selection theory asserts that women who choose business careers, both students and managers, have traits different from those of their genders (Dawson, 1997). This implies that studies that claim to examine gender differences using business

type subjects may actually be measuring differences by sex rather than stereotypical gender role.

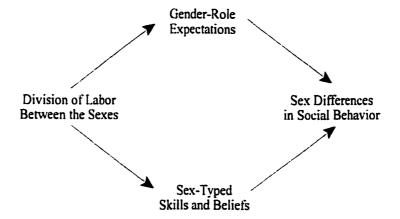
The Structural Approach

Structural explanations emphasize that members of social groups experience common situational constraints because they tend to have similar social positions at work and in other structures such as families (House, 1981). The main premise of the structural approach is that basic gender roles can be overridden by work roles that are learned during the occupational socialization period (Robin & Babin, 1997). Although numerous authors have contributed to the structural school of thought (e.g., Feldberg & Glenn, 1979; Gomez-Mejia, 1983; Harris, 1990; House, 1981; Lacy, Bokemeir, & Shepard, 1983; Posner & Munson, 1981) Eagly's (1987) social role theory and Kanter's (1977) structural interpretation of organizational behavior may be the two most influential structural accounts of gender differences.

According to social role theory "sex differences in social behavior stem from normative beliefs about appropriate actions for men and women as well as from sex differences in skills and attitudes derived from men's and women's prior role enactment" (Eagly & Wood, 1991, p. 314). Eagly and Wood's (1991) summary of the role-theory account of the causes of sex differences is presented in Figure 2.3.

Figure 2.3

Eagly and Wood's (1991) Social-Role Theory of Sex Differences in Social Behavior



Social-role theory asserts that sex differences in social behavior are caused, at least in part, by the tendency of people to behave consistently with their appropriate gender roles. Gender roles refer to the basic stereotypical roles that are associated with the masculine and feminine genders.

The two basic gender roles or gender stereotypes are commonly referred to as agency and communion (Bakan, 1966; Eagly, 1987; Gilligan, 1982). Agency represents self-protection, self-expansion, and self-assertion and is associated with the male gender while communion represents affiliation, contact, openness, and union and is commonly associated with the female gender (Bakan, 1966).

In addition to differences in gender-role expectations, social-role theory also acknowledges that an individual acquires gender specific skills and beliefs from enacting social roles that are gender specific. "Sex-differentiated prior experiences cause men and

women to have somewhat different skills and attitudes, which then cause them to behave differently" (Eagly & Wood, 1991, p. 309).

Where social role theory differs from the socialization approach is in its recognition that gender roles are not the only social roles that we enact. "In natural settings, role requirements other than gender roles are likely to be salient, and the sexes may well behave similarly as long as the formal role assigned to men and women is the same" (Eagly & Wood, 1991, p. 313). Consequently, when organizations base their selection of male and female workers on a similar set of criteria and then subject them to a similar organizational socialization process to establish their organizational roles, their behavior should not differ (Eagly & Wood, 1991).

Eagly's (1987) social-role argument that organizational roles may override gender roles is consistent with Kanter's (1977) structural interpretation of organizational behavior. According to Kanter (1977), sex differences in the behavior of organizational leaders are a result of differences in structural positions of the sexes within organizations. Women, for example, are more often in positions of little power or opportunity for advancement and subsequently, they behave in ways that reflect their lack of power (Kanter, 1977). Kanter (1977) also reasoned, however, that males and females who are equivalent in terms of status and power in the organization will behave similarly, even though sex differences may appear to be substantial when males and females are compared outside of the organizational environment.

Eagly and Wood's (1990) meta-analysis of gender differences in leadership studies provides empirical evidence for both the social-role theory and Kanter's (1977)

structural interpretation of organizational theory in that there were no overall sex differences in either interpersonal or task style in organizational studies. In contrast, in experimental studies and the assessment studies, there were larger tendencies toward stereotypical sex differences. More specifically, females appeared to be somewhat more concerned with interpersonal issues while males showed more concern with the task (Eagly & Wood, 1990).

Another, more recent, meta-analysis on gender differences in ethical perceptions and business practices by Franke et al. (1997) adds even more support to the claims of the structural approach. In this meta-analysis, the authors hypothesized, consistent with social-role theory, that occupational socialization would lead to a decrease in sex differences in what constitutes ethical business practices as work experiences increased. Using a sample of 66 studies and 20,000 respondents, Franke et al. (1997) found sex differences were smaller in samples where the level of work experience was greater.

Although the socialization approach and structural approach to explaining sex differences in ethical orientation have received empirical support in the literature, the remainder of this study will focus on the structural approach. The rationale for this decision is that the structural approach, and the social-role explanation specifically, includes the key elements of the socialization approach. That is, the social-roles explanation acknowledges that sex differences in social behavior may result from the enactment of gender roles by males and females. In contrast to the socialization approach, the explanatory power of the structural approach is not limited to situations that are characterized by gender role enactment.

The Effects of Social Roles on Judgment

One of the difficulties in studying the effects of social roles on judgment is determining what social role the subject was enacting when the data was collected.

Deaux (1984) and Eagly (1987) contend, for example, that in controlled setting one's subject role may overwhelm one's gender role. Consequently, making conclusions based on experimental research may be widely misleading if the researchers did not control for the enactment of social roles. The following section discusses the role priming method that has been used in quasi-experimental designs in the consumer behavior literature.

Role Priming and Sex Differences

Understanding the effect of gender roles on judgment is complicated by the contention of the structural school of thought that individuals are not always enacting their appropriate gender roles. To address this concern, researchers turned to what are termed gender-role primes. Typically, subjects in priming studies are required to perform certain tasks which access attitudes that influence later judgment (Whittler, 1994).

Experimental evidence from the field of consumer behavior suggests that the change in roles influenced by the primes may also alter judgments by altering the way in which information is processed and by changing the individual's preference for information consistent with the values associated with their new role (Meyers-Levy, 1988). Meyers-Levy (1988, 1989b) found that consumers' judgments of a stimulus can be affected by sex primes when they are presented before or after the viewing of the stimulus.

More specifically, Meyers-Levy (1988) found that the persuasibility of either sex is enhanced when appropriate gender role concepts are activated prior to judgment and used to interpret messages that embody gender role consistent values. Furthermore, "either gender may be more persuaded depending upon the consistency between the values represented in a message and the genders' activated sex roles" (Meyers-Levy, 1988, p. 526).

Literature pertaining to the first objective of the study, which was to analyze the effect of gender-role primes on the presence of sex differences in managers' ethical judgments and behavioral intentions to use rewards or punishments to enhance the ethical behavior of subordinates, will be reviewed in the following section. The first proposition of the study and a set of hypotheses will be presented at the end of the section.

Communal and Agentic Gender Roles

With respect to the social-role theory of sex differences (Eagly, 1987), the enactment of appropriate gender roles by individuals is one the major determinants of sex differences in social behavior. The differences in the stereotypical gender roles may have been best described by Bakan (1966) who suggested that the agency and communion represent the two fundamental modalities of living forms.

This basic division of roles has also been studied in other streams of literature by authors such as Hofstede (1980), in his discussion of masculine and feminine dimensions of cultures, and McClelland (1975) in his characterization of the achievement/affiliation dichotomy. Similarly, the justice/caring dichotomy suggested by Gilligan (1982) and

proffered by the socialization school of thought is based on the contention that males' greater concern for achievement and the females' concern for affiliation creates ethical differences between the sexes.

In summary, gender role stereotypes represent knowledge structures referring to those beliefs about behaviors and dispositions that characterize males and females in our society (Halpern, 1992). Gender-role primes activate male and females awareness of their socially determined gender roles. Priming effects occur when subjects are influenced by the content of recently activated knowledge structures (Meyers-Levy, 1989b). Finally, although the effect of gender-role priming has not been demonstrated in the sex differences in ethical orientation literature, there is evidence that gender-role primes can lead to sex differences in judgments (Meyers-Levy, 1988, 1989b). From this line of reasoning, the following proposition can be stated:

P1.1: The presence of gender-role primes will stimulate subjects to enact their appropriate gender roles and the enactment of these roles will lead to sex differences in ethical orientation.

The ensuing hypotheses were derived from the above proposition for the purpose of empirical testing. The first two hypotheses test for the interaction effect of sex and gender-role primes on the components of ethical orientation.

- H1.1.1:The interaction effect of sex by presence of gender-role prime by scenario on ethical judgment is significant.
- H1.1.2:The interaction effect of sex by presence of gender-role prime by scenario on intention to punish or reward is significant.

The second objective of the study, to analyze the effect of work role primes on the presence of sex differences in managers' ethical judgments and behavioral intentions to use rewards or punishments to enhance the ethical behavior of subordinates, is addressed in the next section. Propositions two and three and their associated hypotheses were derived from literature related to the issues outlined in this objective.

Agentic and Communal Work Roles and Their Performance

Eagly and Wood (1991) suggest that in natural settings, role requirements other than gender roles are likely to be salient. Agentic and communal gender-roles, therefore, are not the only social roles that subjects enact. Middle manager positions, for example, which stress teamwork, interpersonal relationships, and the good of the whole over the individual are clearly communal in nature. In contrast, salesperson work-roles which emphasize the achievement of sales quotas, personal gain, and self-promotion, can be classified as agentic in nature. Thus, formal work roles may have a self-oriented or other-oriented focus and, in turn, these formal work-roles determine appropriate social behavior (Eagly & Wood, 1991).

The following proposition was derived from the previous discussion:

P2.1: In the presence of work-role primes, subjects that enact common work-roles (agentic or communal) will not exhibit differences in their ethical orientations by sex.

Hypotheses 2.1.1 through 2.1.4 were derived from proposition 2.1 to test for significant differences in managers' ethical judgments and intentions to use punishments

or rewards when the work roles they are enacting are agentic or communal.

- H2.1.1:Sex differences in ethical judgments are not significant for subjects enacting communal work roles.
- H2.1.2:Sex differences in intentions to punish or reward unethical behavior are not significant for subjects enacting communal work roles.
- H2.1.3:Sex differences in ethical judgments are not significant for subjects enacting agentic work roles.
- H2.1.4:Sex differences in intentions to punish or reward unethical behavior are not significant for subjects enacting agentic work roles.

Eagly and Wood (1991) also suggest that a division of labor between the sexes may lead to sex differences in work role expectations and the use of sex-typed skills and beliefs. Consequently, individuals in an organization may enact different work roles. In turn, these differences in work roles are expected to produce differences in social behavior (Eagly, 1987; Eagly & Wood, 1991). Following this line of reasoning, the following proposition was derived:

P2.2: In the presence of work-role primes, individuals that enact different work roles will differ in their ethical orientations.

Hypotheses 2.2.1 and 2.2.2 test for sex differences in ethical orientation for subjects enacting roles that have been categorized as either agentic or communal.

H2.2.1:Significant differences in ethical judgments exist between subjects that enact agentic versus communal work roles.

H2.2.2:Significant differences in intentions to punish or reward unethical behavior exist between subjects that enact agentic versus communal work roles.

The focus of objective three is the effects of considering organizational and individual consequences on managers' ethical judgments of behavior when subjects are enacting an agentic versus a communal role. In the following section, literature related to these objectives is reviewed and integrated to develop propositions and empirically testable hypotheses.

Social Roles, Organizational and Individual Consequences, and Managers' Judgments and Intentions

Hunt and Vitell (1986) suggest that the probability of consequences for oneself and the company affect managers' judgments and behavioral intentions. The evaluation of these consequences are embodied in the teleology variable in the H-V model shown in Figure 2.1. Bellizzi and Hite (1989) also found that supervisory reactions were more severe when consequences were negative than when negative consequences were not present. Previous studies, however, did not empirically test the separate effects of individual (egoist) versus organizational (utilitarian) consequences nor did they analyze the possible main effects or interaction effects that social roles may have on a subject's ethical orientation. The following attempts to address this dearth in the literature by extending the previous research on the effects of organizational consequences on managers' ethical judgments and behavioral intentions to reward or punish by including an analysis of the effects of social roles.

Social Roles and the Effects of Egoist and Utilitarian Consequences

Meyers-Levy (1988) found that males were more persuaded by self-oriented messages while females were found to be equally persuadable by other and self-oriented message when they were exposed to a gender-role prime before viewing an advertising stimulus that contained both other and self-oriented messages. Although females appeared to have a preference for other-oriented information when exposed to a gender-role prime, it did not have a significant greater effect on their product judgments. When a gender-role prime was not present, Meyers-Levy (1988) did not find significant differences in males' and females' judgments.

Meyers-Levy (1988) suggests that the sex differences in preferences for self and/or other-oriented information has to do with the consistency of the information with the focus of the subject's appropriate sex role. Males' agentic goals stress self-assertion, self-efficacy, and mastery (Meyers-Levy, 1988). In contrast, females are guided by more communal concerns that embrace interpersonal affiliation and the desire to foster harmonious relations amongst themselves and disparate parties (Meyers-Levy, 1988). Thus, communal roles, because of their emphasis on interpersonal relations, entail sensitivity to both self and other.

Meyers-Levy's work on gender differences in subject's judgments of product descriptions (1994, 1989b, 1988) may be useful in helping explain sex and work type differences in subjects' ethical orientations. The rationale for this is that utilitarian consequences of an ethical scenario refer to message cues that focus primarily on other-oriented, rather than self-oriented, consequences of a behavior. The egoist consequences

of an ethical scenario, however, refer to message cues that focus on self-oriented, rather than other-oriented, consequences of a behavior. The self-oriented nature of egoist consequences must be differentiated, however, from that described by Meyers-Levy (1988). More specifically, Meyers-Levy suggests that communal roles entail a sensitivity to self-oriented information because to be concerned about interpersonal relationships, one must show concern for information about all parties within the relationship, including one's self. Thus, the concern for self-oriented information by subjects enacting communal roles is in the context of how this information will impact subjects' relationships. Egoist information, in the context of ethics, is solely focused on personal consequences and would be difficult to reinterpret as having even an indirect impact on one's interpersonal relationships.

It should be noted that the H-V model suggests that the effect of the teleology variable affects subjects ethical judgments along with their deontology evaluation.

Furthermore, it is their deontology evaluation that serves as the primary determinant of their ethical judgment (Hunt and Vasquez-Parraga, 1993). Subjects' deontology evaluations, however, are not directly connected to their intentions to reward or punish subordinate behavior (Hunt and Vitell, 1986).

Although Hunt and Vasquez-Parraga (1993) found that the teleology variable only explained two percent of the variance in subjects ethical judgments, their lack of distinction between egoist and utilitarian cues in their scenarios limited their ability to analyze which part of teleology had the biggest impact. If subjects process information when confronted with an ethical dilemma in a similar manner to subjects that are

presented with advertising stimuli that is other-oriented and self-oriented, respectively, then the following propositions and associated hypotheses, concerning agentic and communal work roles, can be derived:

P3.1: The influence of utilitarian message cues on managers' ethical orientations is greater than the influence of egoist message cues when subjects are enacting communal roles.

Because managers that enact communal work roles are expected to enact communal roles when subjected to work-role primes, they should place heavy emphasis on the deontological content and the utilitarian content because of their preference for other-oriented information. Managers that enact communal work roles are not expected to have a preferences for egoist information because of its narrow focus on the consequences of the act for the individual.

In an effort to build on the literature, which has provided good understanding of the effects of deontologically ethical and unethical conditions on subjects' ethical orientations, the focus of the following hypotheses was restricted to the effects of egoist and utilitarian message cues on subjects' ethical judgments and intentions.

- H3.1.1:Utilitarian message cues have a significant affect on the ethical judgments of subjects enacting communal roles.
- H3.1.2:Utilitarian message cues have a significant affect on the intentions of subjects enacting communal roles.

In contrast to females, males have been shown to be much more selective in their use of message cues when forming judgments about products (Meyers-Levy 1989b;

Meyers-Levy and Maheswaren 1991). More specifically, males appear to have a preference for self-oriented information because of its congruity with their agentic gender role. Moreover, it has been suggested that because of males' common use of heuristics to process information, these self-oriented message cues have a greater impact on their judgments (Meyers-Levy & Sternthal, 1991). Egoist message cues, because of their emphasis on the individual, therefore, should have a greater effect on ethical orientation than utilitarian or other-oriented message cues. The following proposition is presented to summarize the discussion on agentic gender roles and the effects of egoist message cues:

P3.2: The influence of egoist message cues on managers' ethical orientations is greater than the influence of utilitarian message cues when subjects are enacting agentic roles.

It was the determined that two hypotheses would be needed to test the relationships outlined in proposition 3.2.

- H3.2.1:Egoist message cues have a significant affect on the ethical judgments of subjects enacting agentic work roles.
- H3.2.2:Egoist message cues have a significant affect on the intentions of subjects enacting agentic work roles.

The final objective of the study, to examine the relationship between ethical orientation and the use of information processing strategies, is addressed in the following section. A review of the literature from various academic fields was used to develop the propositions and hypotheses needed to analyze the issues outlined in this objective.

Sex-Typed Skills and Sex Differences in Ethical Orientation

The Social-Role Theory of sex differences in social behavior suggests that these differences occur because of sex differences in role expectations and the use of sex-typed skills. To this point, the focus of this study has been on the effects of the role expectations associated with communal and agentic gender and work roles on subjects' judgments and intentions. The following section discusses how sex differences in information processing, as a sex-typed skill, may provide additional explanation for sex differences in ethical orientation.

Gender Differences in Information Processing

Information processing differences are one example of a sex-typed skill that may play an important role in determining the existence of sex differences in social behavior. Sex-based information processing differences are thought to be the result of differences in the way that the male and female cortical hemispheres are organized and function (Meyers-Levy, 1994).

The human brain is unlike any other mammalian brain in that it has laterally specialized hemispheres (Levy, 1971). Research has shown that there are basic differences in the way that information is processed in the two hemispheres. The right hemisphere is essentially a Gestalt specialist, not overly interested in details (Levy, 1971), and consequently, is said to process information in a relatively undifferentiated manner (Nebes, 1978). The left hemisphere, in contrast, is an expert in symbol translation and

analysis, acting more like a computer in that it can analyze and describe the results of its analysis, but also like a computer, it is unable to appreciate the overall significance (Levy, 1971). Evidence in the literature suggests that males are generally right-hemisphere dependent whereas females are more likely to be left-hemisphere dependent (Meyers-Levy, 1989a; McGinness, 1976) or to use a combination of the two hemispheres (Meyers-Levy, 1989b; Levy, 1971).

Meyers-Levy and Sternthal (1991) speculate as to the ontogeny of basic gender differences in information processing by referring again to Bakan's (1966) communal/agentic duality. This view, which is based on the theorizing of Hall (1984), suggests that the enactment of a communal role requires a more sensitive approach to a broader array of phenomenon than the more self-focused agentic role enacted by males. Consequently, females develop the ability to process information in a detailed manner without the need of a heightened awareness. Male roles, on the other hand, only require the ability to process information in a detailed manner under certain, relatively less common circumstances, such as hunting or fighting. As a result, males develop processing strategies that allow them to accomplish tasks while blocking out nonessential information.

The selectivity model is a model of sex differences in information processing. It essentially implies that females are more consistent in their use of all available message cues as a basis for judgment while males are more selective in that they employ heuristic devises that serve as proxies for more detailed processing (Darley & Smith, 1995). The most significant contribution of the selectivity model, however, is its premise that males'

choice of a less detailed information processing strategy is not fixed. Although the more extensive lateralization of the male brain is thought to result in the heavy use of the right hemisphere which has been tied to the heuristic processing style, this division also allows males to become very detailed processors when they are stimulated to use their left hemisphere (Meyers-Levy, 1989a). Consequently, gender differences can exist quite vividly when females are acting as detailed processors and males are using a more heuristic style. Gender differences, however, are thought to disappear when males are encouraged by situational variables to employ their left hemisphere's more detailed abilities which are similar to that of females. In theory, the ability of males to use either the left or right hemisphere, rather than drawing on both, should allow for an even greater level of detailed processing than that of females because of their tendency not to forgo processing information in the right hemisphere (Meyers-Levy, 1989a, 1989b).

Information Processing and Ethical Orientation

Although work done in the past on information processing differences in social roles has focused on masculine and feminine gender roles, it stands to reason that agentic and communal work roles would be similar because of their respective focus on other versus self-oriented information. Accordingly, the selectivity model would suggest that subjects enacting agentic work roles would tend to use a heuristic or schema-based processing information processing strategy. Subjects enacting communal work roles, in contrast, would likely employ a detailed information processing strategy.

Extending the selectivity model of information processing to the study of ethical orientation is plausible because the ethical decision making process involves similar processes of judgment and behavioral intention formulation to that found in the study of consumer behavior. Furthermore, subjects' appetites for self and other-oriented information, as described in Meyers-Levy (1988), can be satisfied respectively by the egoist and utilitarian evaluations associated with the teleology evaluation of ethical behavior.

Following Meyers-Levy (1988, 1989b), subjects that enact agentic roles should have a preference of self-oriented information and use a heuristic information processing strategy. Subjects that enact a communal role, even though they appear to have a preference for other-oriented information, should use a more detailed information processing strategy. This argument is stated formally in proposition 4.1:

P4.1: Subjects that enact an agentic role will use a heuristic information processing strategy while those that enact a communal role will tend to use a detailed information processing strategy.

Determining the type of information processing strategy used while a subject is enacting an agentic or communal social role is complicated by the fact that the subjects are probably not aware of which type of strategy they are using. Consequently, researchers needed to find alternative ways to look for clues as to which type of information processing strategy is being used. One way of assessing the type of information processing strategy used is through a measure of recognition accuracy. When individuals use a detail-based information processing strategy, their recognition skills are

highly accurate and their ability to discriminate between real and fictitious items from a scenario is very good (Meyers-Levy & Maheswaran, 1991). In contrast, subjects that use a schema-based information processing strategy accurately recognized target items that were actually in the scenario and consistent with the message-implied theme or schema, and when the items were not in the scenario and inconsistent with the implied theme.

Accuracy will be poor, however, when the target items are consistent with the schema but are not in the scenario or when the target items are in the scenario but are inconsistent with the schema (Meyers-Levy & Maheswaran, 1991). This implies that when the heuristic-based schema is used, people judge themes rather than facts (Reder & Anderson, 1980).

The following hypotheses were derived from proposition 4.1:

- H4.1.1:Subjects that enact agentic work roles will be less accurate in their identification of fictitious items that are consistent with the theme of the egoist message cues than fictitious items that are inconsistent with the theme of the egoist message cues.
- H4.1.2: When subjects enact communal work roles, their accuracy in identifying fictitious target items will not be significantly affected by their consistency with the utilitarian theme of the scenario.

The relationships and hypotheses presented above are summarized and discussed in the model of the effects of gender and work roles on the presence of sex differences in ethical orientation in Figure 2.4. Additionally, propositions and hypotheses are presented in Table 2.3 for easy reference.

Table 2.3

Summary of Study Objectives, Propositions, and Hypotheses

OBJECTIVE ONE

To analyze the effect of gender-role primes on the presence of sex differences in managers' ethical judgments and behavioral intentions to use rewards or punishments to enhance the ethical behavior of subordinates.

- P1.1: The presence of gender-role primes will stimulate subjects to enact their appropriate gender roles and the enactment of these roles will lead to sex differences in ethical orientation.
- H1.1.1:The interaction effect of sex by scenario by presence of gender-role prime on ethical judgment is significant.
- H1.1.2:The interaction effect of sex by scenario by presence of gender-role prime on intention to reward or punish is significant.

OBJECTIVE TWO

To analyze the effect of work role primes on the presence of sex differences in managers' ethical judgments and intentions to use rewards or punishments to enhance the ethical behavior of subordinates.

- P2.1: In the presence of work-role primes, subjects that enact common work-roles (agentic or communal) will not exhibit differences in their ethical orientation by sex.
- H2.1.1:Sex differences in ethical judgments are not significant for subjects enacting communal work roles.
- H2.1.2:Sex differences in intentions to punish or reward unethical behavior are not significant for subjects enacting communal work roles.
- H2.1.3:Sex differences in ethical judgments are not significant for subjects enacting agentic work roles.
- H2.1.4:Sex differences in intentions to punish or reward unethical behavior are not significant for subjects enacting agentic work roles.

P2.2: In the presence of work-role
primes, individuals that enact different
work roles will differ in their ethical
orientations.

H2.2.1:Significant differences in ethical judgments exist between subjects that enact agentic versus communal work roles.

H2.2.2:Significant differences in intentions to punish or reward unethical behavior exist between subjects that enact agentic versus communal work roles.

OBJECTIVE THREE

To analyze the effect of organizational and individual consequences on managers' ethical judgments and behavioral intentions when subjects are enacting agentic versus communal roles.

- P3.1: The influence of utilitarian message cues on managers' ethical orientations is greater than the influence of egoist message cues when subjects are enacting communal roles.
- H3.1.1:Utilitarian message cues have a significant affect on the ethical judgments of subjects enacting communal work roles.
- H3.1.2:Utilitarian message cues have a significant affect on the intentions of subjects enacting communal work roles.
- P3.2: The influence of egoist message cues on managers' ethical orientations is greater than the influence of utilitarian message cues when subjects are enacting agentic roles.
- H3.2.1:Egoist message cues have a significant affect on the ethical judgments of subjects enacting agentic work roles.
- H3.2.2:Egoist message cues have a significant affect on the intentions of subjects enacting agentic work roles.

OBJECTIVE FOUR

To examine the relationship between ethical orientation and the use of information processing strategies.

- P4.1: Subjects that enact an agentic role will use a heuristic information processing strategy while those that enact a communal role will tend to use a detailed information processing strategy.
- H4.1.1:Subjects that enact agentic roles will be less accurate in their identification of fictitious items that are consistent with the theme of the egoist message cues than fictitious items that are inconsistent with the theme of the egoist message cues.
- H4.1.2: The accuracy of subjects enacting communal work roles in identifying fictitious target items will not be significantly affected by the consistency of the statement with the utilitarian theme of the scenario.

Research Model

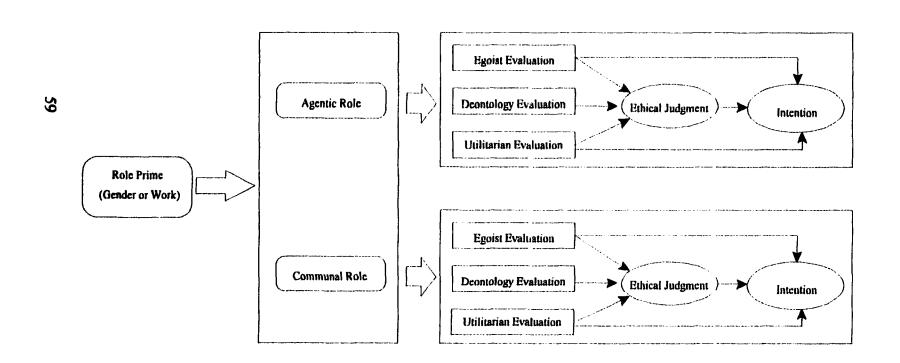
The basic premise of the study is that individuals' ethical orientations are a function of the social roles that they are enacting at the time they respond to a question of ethical judgment or intention. When subjects enact similar roles they should have similar ethical judgments and intentions. When the roles enacted differ, subjects' judgments and intentions should also differ. Figure 2.4 shows that once subjects are stimulated to enact a particular social role, a gender role or work role for example, their emphasis on the deontological evaluations as well as their egoist and utilitarian (teleological) evaluations will differ from those enacting dissimilar roles. Subjects enacting agentic gender roles will differ from subjects enacting communal gender roles. Subjects enacting agentic work role will differ from subjects enacting communal work roles.

These differences, however, are suggested to be inherent to the social role rather than the individual. Thus, a female enacting a communal gender role may appear to be more ethical in her judgment and intention than a male enacting an agentic gender role.

Under different conditions, the same female may appear to be less ethical than the same male if the female is enacting an agentic work role and the male is enacting a communal work role.

Figure 2.4

Model of the Effects of a Role Prime on the Presence of Sex Differences and Work
Differences in Ethical Orientation



Chapter Summary

The focus of this chapter was on reviewing and integrating the relevant literature on the effects of agentic and communal social roles on sex differences in ethical orientation. Propositions and hypotheses were then derived from the results of the review. These propositions and hypotheses were then used to construct a model of the phenomenon. The basic premise of this chapter was that ethical orientation is influenced by the subject's social role and the type of information processing strategy that is associated with that role. Sex differences occur when males and females occupy different roles but disappear when the roles are similar. The following chapter focuses on how the hypotheses developed in Chapter II can be empirically tested.

CHAPTER III

RESEARCH METHODOLOGY

This study is based on a posttest-only control group experimental design. In this design, subjects are randomly assigned to the experimental group(s) and the control group(s) so that all possible independent variables can be controlled if a sufficient sample size is used. This type of research design has the following advantages: (1) the treatment and posttest can be given to the subject as a single package when the use of a pretest would be awkward (Campbell & Stanley, 1963), (2) it has the best built-in theoretical control system of any of the experimental designs, (3) it can be extended to any number of groups and any number of variables, and finally, (4) if more than one variable is included, it can test multiple hypotheses at the same time (Kerlinger, 1986).

A randomized subjects factorial variation of the basic posttest-only control group experimental design was chosen for the study. Factorial analysis of variance analyzes the independent and interactive effects of two or more independent variables on a dependent variable (Kerlinger, 1986). The primary benefit of a factorial design is its ability to identify interaction between independent variables. The ability to test for interaction effects allows us to hypothesize interactions in the form of "If p, then q, but only if condition r is present" as compared to one-way analysis where we are restricted to "If p,

then q." The term interaction refers to "the working together of two or more independent variables in their influence on a dependent variable" (Kerlinger, 1986, p. 230). Second, it allows the researcher to manipulate and control two or more variables simultaneously. Finally, a factorial design is considered to be more precise than one-way analysis.

The discussion of the research methodology to be used in this study will be as follows. First, a general discussion of the research design will cover the manipulation of two factors: social roles and individual and organizational consequences. It will also include an explanation of the factorial design that will be employed in the study and the measurement of the dependent variables (managers' ethical judgments and managers' intentions to punish or reward). The second major topic of this chapter deals with issues associated with the sample that will be used, such as the type of subjects, sampling frame, and sampling procedures. A discussion of the questionnaire development and administration will follow the section on sample issues. Finally, a discussion of the methods of analysis that will be used in the eventual analysis will conclude the chapter.

Research Design

A research design is essentially the blueprint or the framework for the completion of a study. The purpose of a research design is "(1) to provide answers to research questions and (2) to control variance" (Kerlinger, 1986, p. 280). Kerlinger (1986) suggests that the research design should enable researchers to answer research questions as validly, objectively, accurately, and economically as possible. Keeping these issues in

mind, this chapter presents the blueprint for examining the effect of social roles on sex differences in subjects' ethical orientations in the following sections.

Manipulation of the Independent Variable Social Role

Changing the social role enacted by the subject through the use of gender-role primes has been shown to alter judgments by changing the way in which information is processed and by changing the individual's preference for information consistent with the values associated with their new role (Meyers-Levy, 1988).

In this study, role primes were used to manipulate the social role enacted by the subjects when they respond to the questionnaire. Two specific social roles were manipulated: subjects' work roles and their gender roles. Subjects that did not receive a role prime served as the control group. Thus, this manipulation produced three treatment groups: presence of a work-role prime, presence of a gender-role prime, and no role prime present.

Gender roles and work roles can both be categorized as bipolar variables with the two extremes being agentic and communal. Although gender roles have been described as either communal or agentic (Bakan, 1966), categorizing work roles as communal or agentic is not as well documented in the marketing literature but has been the subject of a number of studies in the field of psychology (e.g., Eagly & Johnson, 1990; Eagly & Wood, 1991; Kanter, 1977).

Primes. The gender-role prime was developed from examples of gender primes used in the consumer behavior literature. The gender-role prime contained eight

statements that emphasized agentic and communal concerns by stressing the consideration of other (communal) or self (agentic). An example of an agentic item in the prime is "I feel a need to openly compete against others." In contrast, an example of a communal item is "I am sympathetic to the needs of others." Subjects were asked to indicate their level of agreement or disagreement with each statement on a seven-point Likert scale anchored by "Strongly Agree" and "Strongly Disagree".

Even though no examples of work-role primes could be found in the marketing or psychology literature, their characterization as either agentic or communal suggests that a role prime similar to a gender-role prime could be used. The work-role prime was modified, however, to focus the subjects on their work-roles. This was accomplished by inserting the statement "When I am at work, "before each of the statements that made up the gender-role prime.

The role primes used in the study were developed from the results of numerous pretests on graduate and undergraduate business students. The eight statements that made up the role primes were taken from a pool of statements gathered from various sources in the literature. Although the search began with Meyers-Levy (1988), the use of gender-role primes was not widespread in the literature and consequently, other areas of research had to be explored. The largest pool of statements came from research on the agency-communion dichotomy. This area or research included works by authors such as Bakan (1966) and Watts, Messse, and Vallacher (1982). The work of Hofstede (1980) was also tapped because of his work on the cultural dimension of masculinity which is based in large part on the agency-communion dichotomy discussed by Bakan (1966). It is

important to note that although subjects were required to assess their level of agreement or disagreement with the statements, the primes were in no way intended to serve as measures of the subjects' roles. Their purpose was instead to simply have the subjects think about how they would act in the role for which they are being primed. This act alone, according to Meyers-Levy (1988), should be enough to stimulate the subjects to assume the role for a period of up to 15 minutes. The gender-role prime and work-role prime are shown in Appendix C

Manipulation of the Independent Variables Egoist and Utilitarian Consequences

Ford and Richardson (1994) suggested, in their review of the ethics literature, that in general, few studies use scenarios that were previously developed and tested. To address this delimitation, emphasis was placed on finding scenarios in the literature that have been well established though empirical testing. The basic components of the scenario were first developed by Bellizzi and Hite (1989) as part of a four-scenario research design. They were then modified by Hunt and Vasquez-Parraga (1993) to include positive and negative consequences. These scenarios were also used in replications of Hunt and Vasquez-Parraga (1993) in Mengüç (1998) and Vasquez-Parraga and Kara (1995). Additionally, these scenarios were modified for use in the tax industry in Burns and Kiecker (1995).

Part of the scenario development process was determining the number of treatment groups. Although Hunt and Vitell (1986) suggest that the teleological component could be logically separated into egoist and utilitarian consequences, they did

not test the separation empirically. Similarly, the Hunt and Vasquez-Parraga (1993) study of the effects of the teleological component did not separate organizational and individual consequences. Following the suggestion of Hunt and Vitell (1986), this study separated the teleological component into positive/negative egoist and positive/negative utilitarian components. This produces four combinations of teleological conditions; (1) positive egoist/positive utilitarian, (2) positive egoist/negative utilitarian, (3) negative egoist/positive utilitarian, and (3) negative egoist/negative utilitarian. Since the focus of the study is on the impact of egoist versus utilitarian outcomes, conditions one and four are included as part of a manipulation check to assess the effectiveness of the scenarios.

With respect to the teleological manipulations, two scenarios involve positive egoist and negative utilitarian consequences and two others involve negative egoist and positive utilitarian consequences, as shown below:

	+Egoist	-Egoist
+Utilitarian	Scenario 1 + Egoist/ +Utilitarian	Scenario 3 -Egoist/ +Utilitarian
-Utilitarian	Scenario 2 + Egoist/ - Utilitarian	Scenario 4 -Egoist/ -Utilitarian

The selling issue that was used as a base for scenario development was overstating utilization of plant capacity. Gene, a fictitious salesperson, tells customers that utilization of plant capacity is very high and consequently, they must pay more for the product.

Gene does this even though plant capacity is quite low. The name Gene was chosen because it is not gender specific. This was done to avoid the confounding effect of

possible stereotypes of male versus female salespeople. Gene's deontologically unethical act is common in all four scenarios. The consequences of the act, for Gene, the boss (the study subject), and for the organization, were then varied across the four scenarios.

The four scenarios used in the study are presented below. The deontological condition is separated from the utilitarian consequences by the italicized egoist consequences so that the reader can easily examine the component parts.

Scenario 1 (Deontology -, Egoist +, Utilitarian +)

Gene, a salesperson you supervise, has been one of your top performers over the last several years. Recently, Gene has been telling purchasing agents that rising popularity of the company's product has driven the utilization of plant capacity to a very high level and as a result, the company's production costs have also increased. Gene adds, however, that upper management has been persuaded to pass on only part of these cost increases so that the company's customers can remain competitive. Gene does this even though utilization of plant capacity is actually low. Purchasing agents are generally unaware of these overstatements. The use of this selling tactic has resulted in higher prices and sales for Gene. Gene's performance has also been beneficial for you in that you were one of the few divisional sales managers to meet the company's sales quotas. Furthermore, the company's relationships with its customers have actually been strengthened by the perception that Gene had acted on their behalf to avoid an even greater price increase that would have compromised their ability to subsequently satisfy the end consumers.

Scenario 2 (Deontology -, Egoist +, Utilitarian -)

Gene, a salesperson you supervise, has been one of your top performers over the last several years. Recently, Gene has been telling purchasing agents that rising popularity of the company's product has driven the utilization of plant capacity to a very high level and as a result, the company's production costs have also increased. Gene adds, however, that upper management has been persuaded to pass on only part of these cost increases so that the company's customers can remain competitive. Gene does this even though utilization of plant capacity is actually low. Purchasing agents are generally unaware of these overstatements. The use of this selling tactic has resulted in higher prices and sales for Gene. Gene's performance has also been beneficial for you in that you were one of the few divisional sales managers to surpass the company's sales quotas. This

selling tactic has, however, created conflict between the company and its customers as they have been forced to pass on the price increases to the end consumer. This was especially true for the company's smaller customers that have had to absorb a greater portion of the price increase to remain competitive.

Scenario 3 (Deontology -, Egoist -, Utilitarian +)

Gene, a salesperson you supervise, has been one of your top performers over the last several years. Recently, Gene has been telling purchasing agents that rising popularity of the company's product has driven the utilization of plant capacity to a very high level and as a result, the company's production costs have also increased. Gene adds, however, that upper management has been persuaded to pass on only part of these cost increases so that the company's customers can remain competitive. Gene does this even though utilization of plant capacity is actually low. During a recent sales call, however, Gene lost all credibility with a major prospect because the prospect knew through a personal friend that the plant was operating significantly below capacity. From that point, Gene had trouble just getting in to see this prospect and your ability to meet your divisional sales quotas was severely hampered. The company's relationships with the rest of its customers, however, have actually been strengthened by the perception that Gene had acted on their behalf to avoid an even greater price increase that would have compromised their ability to subsequently satisfy the end consumers.

Scenario 4 (Deontology -, Egoist -, Utilitarian -).

Gene, a salesperson you supervise, has been one of your top performers over the last several years. Recently, Gene has been telling purchasing agents that rising popularity of the company's product has driven the utilization of plant capacity to a very high level and as a result, the company's production costs have also increased. Gene adds, however, that upper management has been persuaded to pass on only part of these cost increases so that the company's customers can remain competitive. Gene does this even though utilization of plant capacity is actually low. During a recent sales call, however, Gene lost all credibility with a major prospect because the prospect knew through a personal friend that the plant was operating significantly below capacity. From that point, Gene had trouble just getting in to see this prospect and your ability to meet your divisional sales quotas was severely hampered. Furthermore, this selling tactic has, created conflict between the company and its customers as they have been forced to pass on the price increases to the end consumer. This was especially true for the company's smaller customers that have had to absorb a greater portion of the price increase to remain competitive.

The scenarios used in this study were restricted to the deontologically unethical condition so that the effects of varying organizational (utilitarian) and individual (egoist) consequences could be studied. Furthermore, it was reasoned that the expansion of the research design to include another treatment would have compromised the focus of the study. Previous research in this area (see Hunt & Vasquez-Parrage, 1993), as well as the results of pretests completed for this study suggest, however, that examining the effects of egoist versus utilitarian consequences on deontologically ethical versus unethical situations would be a valid topic for future research.

Factorial Design

Manipulation of the treatments resulted in a 3 (role prime: work, gender, none) x 4 (ethical condition: -deontology/+egoist/+utilitarian, -deontology/+egoist/-utilitarian, -deontology/-egoist/-utilitarian), factorial design. The twelve treatment groups are shown below:

-Deon

Organizational and Individual Consequences

-Deon

-Deon

12

	+Util.	-Util.	+Util.	+Util.
Work	Group	Group	Group	Group
	l	2	7	10
Gender	Group	Group	Group	Group
	3	4	8	11
None	Group	Group	Group	Group

Role Prime

5

Measurement of the Dependent Variables

Three dependent variables will be used in this study. The first is managers' intentions to use punishments or rewards to enhance ethical conduct. The second dependent variable is managers' ethical judgments. Even though the measure of managers' ethical judgments is suggested to mediate the effects of the deontology and teleology evaluations on the intention variable, the ethical judgment variable will follow the measure of managers' intentions on the questionnaire. The measure of ethical judgment was placed after the measure of intention to avoid the bias that may be introduced by the question of ethics in the judgment measure. Although the same argument could be made for the effects of placing the measure of intention before the judgment measure, accurate measures of managers' intentions were deemed to be more valuable since they are thought to be much more closely related to actual behavior.

The third dependent variable, information processing strategy, was needed to assess the relationship between communal roles, ethical orientation, and sex-typed skills that was addressed in objective four. The measurement of these dependent variables is discussed in the following sections.

Manager's Intentions to Punish or Reward. After reading the scenario, the subject will be asked "How would you respond to Gene's behavior with respect to punishments or rewards?" Subjects were then instructed to rate their intention to reward or punish the subject's behavior on a metric rating scale ranging from the "The Most Severe Punishment" (-10) to "The Most Kind Reward" (+10). The validity of the scale

was established in Hunt and Vasquez-Parraga (1993). This was done by giving subjects in a supplementary study nine different alternatives in dealing with the subjects actions. These alternatives were ranked on a scale from -10 through +10. They ranged from giving the subject a raise (+10) to terminating the subject's employment (-10). The alternative of no action at all was rated as zero.

Manager's Ethical Judgments. The second dependent variable in the study measures managers' ethical judgments of the principle subject's behavior in the scenario. Ethical judgments have been linked to the decision making process most notably by Fishbein and Azjen (1975) and Sheppard, Hartwick, and Warshaw (1988) and to the ethical decision making process by Hunt and Vitell (1986), and Hunt and Vasquez-Parraga (1993). Subjects' ethical judgments will be obtained using a single item 7-point Likert scale anchored by "Very Unethical" and "Very Ethical". This measure was taken form Vasquez-Parraga (1990) and was also used in Hunt and Vasquez-Parraga (1993). The measure was also similar to the majority of the ethical judgment measures examined in this study and in Robin and Babin (1997).

Ethical judgments, as in judgments in general, do not necessarily determine our behavior or even our behavioral intentions (Hoyer & MacInnis, 1997). Including measures of intention and judgment, however, allows for a better assessment of how an ethical decision is made. The use of measures of both intentions and judgments will also allow for an assessment of the validity of the measures since they have been shown to be

highly correlated in the literature. A finding of correlation between the two dependent variables, therefore, would be an indication of the criterion-related validity of the measures.

Although this study employs a single item measure of ethical judgment (Robin & Babin, 1997), authors such Reidenbach and Robin (1990) suggest that multi-item scales do a better job of capturing the ethical judgment construct. This view, however, contradicts the literature on the nature of judgment tasks. Meyers-Levy (1989) suggests that "rather than stimulating a detailed search and consideration of specific message items represented in memory, judgments are believed often to be based on readily accessible information" (p. 85). Thus, the use of a multi-item, elaboration intensive scale to measure ethical judgment may in fact distort subjects' actual judgments. Although the use of multi-item scales may have merit for investigating "why" a subject reported a particular ethical judgment, the purpose of the ethical judgment measure in this study is to illicit a realistic "what". Thus, the "why" in this study is examined through the examination of the effects of the independent variables on the ethical judgment variable; the "what".

Establishing the reliability of the measures used in the study is complicated by the fact that data on managers' ethical judgments and intentions are gathered on single item measures. Although it is possible to assess the reliability of single item measures by establishing the correlation between responses to two administrations of the survey, called the test-retest method (Carmines & Zeller, 1979), the factorial design of this study

makes even this method of reliability assessment impractical. The use of multiple survey versions that result from the factor manipulation means that accurate measures of reliability could only be obtained using the test-retest measure if the analysis was restricted to responses to each individual survey. The usefulness of this approach, however, is questionable because the number of subjects in each cell is expected to be around 20.

To overcome these difficulties in assessing reliability, it is proposed that simple one-way analysis of variance be used to test for differences between subjects' responses to the dependent measures over different time periods. If the measures are indeed reliable then there should be no significant differences in subjects' responses based on when the questionnaire was administered. Alternatively, unreliable measures would likely lead to differences in subjects' responses over different administrations.

Measurement of Information Processing Strategies

The type of information processing strategy used by a subject in the enactment of a social role will also be measured in this study, even though it is considered an independent variable in the determination of ethical orientation. The purpose of measuring this variable is to investigate the relationship between social roles, information processing strategies, and ethical orientation that was presented in proposition four. The basis of this measurement comes from Reder's (1987) finding that recognition accuracy varies systematically when a detail-based versus a heuristic-based information processing strategy was used by subjects.

After answering the ethical judgment question and the eleven demographic questions, subjects will be required to answer eight general questions about the scenario they have just reviewed. Four of the items are based on the deontological component of the scenario and four dealt with the consequences. Although all eight items were designed to be consistent with the theme that Gene's actions had positive egoist and utilitarian consequences, the items contained statements about the scenario that were not true. Subjects are required to indicate if the statements referred to actual events in the scenario. They are given three options for their response: Yes, No, and Unsure. The third option was included to reduce the effects of guessing. The information processing measure is presented in Appendix D.

Sample

Business managers are the subjects of the study. Managers were selected for the study because the relative homogeneity of situational restraints to which they are subjected allows for a more accurate assessment of the effects of organizational and individual consequences on judgments and intentions than if subjects were chosen across different professions.

Sample Frame

The sample frame for the study is U.S.-based managers from sales management, human resources, and accounting. Equal numbers of females and males were taken from

each business area. Best Mailing Lists, a national mail list company, was used to generate the pool of managers for sampling.

Sample Size

Hair, Anderson, Tatham, and Black (1995) suggests that at least 20 subjects per cell are needed for accurate results when using a factorial design. The factorial design in this study has 12 cells, however, the number of cells has to be doubled to 24 allow for an analysis of results across males and females. Sample size is also affected by the effect size and power of the test of the null hypothesis that "the social role activated by the individual does not have a significant effect on the impact of positive or negative egoist or utilitarian consequences on males' and females' ethical orientations." Unfortunately, there is little information on the size of the effect in the literature.

Given the recommendation of 20 subjects per cell and uncertainty of the effect size, it was determined that at least 480 responses were needed (20 x 24). Hunt and Vasquez-Parraga (1993) reported that the typical response rate for ethics studies was from 19% (Mayo & Marks, 1990) to 53% (Hunt & Vasquez-Parraga, 1993). With a 20% response rate, a sample of 2400 would be needed to obtain the 480 responses. To be conservative, a sample of 4000 managers was selected. This included 2000 sales managers (1000 females and 1000 males) and 2000 accounting and human resource managers (1000 females and 1000 males). With this sample size, only a 12% response rate is required.

Questionnaire Development

Pretests

Undergraduate and graduate students at the University of Texas-Pan American and the University of Texas at Brownsville and Texas Southmost College were used to pretest the scenarios, dependent measures, manipulations, and questionnaire completion times. A total of 825 subjects took part in the pretests. Results of these pretests were used to make adjustments to scenario content, clarity of instructions, and the strength of the manipulations. Students were selected as pretest subjects primarily because of their convenient and economical use, and because the pretests served as a test of the instruments. The results of the pretests were not intended to be generalized to the business population.

Pretest one. Pretest one served as a manipulation check for the variations in the egoist, utilitarian, and deontological conditions of the scenarios developed from Vasquez-Parraga (1990) and a test of the ethical judgment and behavioral intention dependent variable measures. Although only scenarios based on an unethical condition, with respect to deontology, would be used in the final study, pretest one included both ethical and unethical scenarios. The inclusion of the ethical scenarios allowed the researcher to assess the validity of the unethical manipulation.

Sixteen versions of two base scenarios were distributed to 184 undergraduate students. Eight of these were based on the overstating plant capacity scenario that was used in this study, and eight were based on an over recommending products scenario that

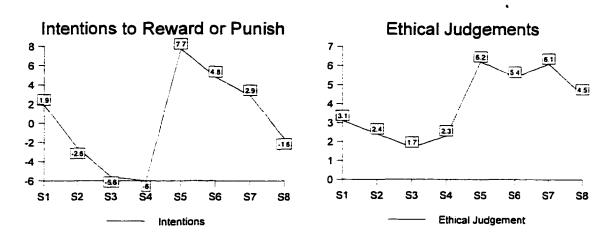
were included in Hunt and Vasquez-Parraga (1993) and Vasquez-Parraga (1990). The over recommending products scenario was included in the pretest to determine if it was appropriate to use only one of the base scenarios in the study so that the research design could be simplified. The sixteen scenarios and more detailed results are presented in Appendix E.

Analysis of the responses to the two scenarios revealed only minimal differences for both ethical judgments and intentions. Only scenarios eight and the corresponding scenario, scenario sixteen, were significantly different with respect to ethical judgments $(\mu_8=4.5,\,\mu_{16}=6.55,\,F_{1,\,22}=32.605,\,p<.000) \text{ and intention } (\mu_8=-1.53,\,\mu_{16}=3.30,\,p<.000)$

The results suggest that the unethical/ethical manipulation was successful as the ethical judgments were significantly lower ($F_{1.87}$ = 235.325, p < .000) for the deontologically unethical scenarios (μ = 2.4) versus the deontologically ethical scenarios (μ = 5.5). Similarly, subjects' intentions to use rewards were significantly greater ($F_{1.87}$ = 88.310, p < .000) for deontologically ethical scenarios (μ = 3.5) than deontologically unethical scenarios (μ = -3.1). The expected pattern of responses, higher for scenarios with positive outcomes than four scenarios with negative scenarios, was also confirmed. The pattern of ethical judgments and intentions is best illustrated in Figure 3.1.

Graphical Representation of the Means for Subjects' Ethical Judgments and Intentions to Reward or Punish (Un)ethical Selling Behavior for Pretest one

Figure 3.1



Pretest two. The primary purpose of pretest two was to test the effect of the gender-role prime instrument on the judgments and intentions of male and female subjects. Two versions of a questionnaire were developed. Version one of the questionnaire included a gender-role prime and a scenario while version two only included the scenario. The scenarios were based on those used in pretest one. Only two scenarios were used in the pretest. These scenarios were similar to scenarios two and three in pretest one. The first scenario contained a positive egoist component and a negative utilitarian component. In case two, the egoist component was negative and the utilitarian component was positive.

The interaction effect of the presence of a gender-role prime by egoist and utilitarian consequences was not significant for ethical judgments (F < 1) but it did approach significance for intentions ($F_{1.38} = 2.500$, p < .123). The main effect of

organizational or individual consequences approached significance, however, for ethical judgment (F $_{1.38}$ = 2.620, p < .115) and was highly significant for intentions (F $_{1.38}$ = 6.376, p < .017). Males' intentions to punish Gene were more severe for case 2 (μ = -5.229) than for case 1 (μ = -3.000). The interaction effect of the presences of a gender-role prime by egoist and utilitarian consequences approached significance for females' ethical judgments (F $_{1.38}$ = 2.118, p < .152) and was significant for intentions (F $_{1.38}$ = 3.882, p < .055). Females' intentions to punish Gene were less severe for case 2 than case 1 when a gender-role prime was present. When the gender-role prime was not present, females' intentions were not significantly different across cases. More detailed results and discussion can be found in Appendix F.

Although the sample size for pretest two was relatively small (N = 41), the analysis of the results suggested that the gender-role prime and scenarios needed to be improved. This was especially true for the scenario content. Comments from subjects suggested that there was confusion over the scenarios that may have led to the inconsistent results.

Pretest three. The purpose of pretest three was to further test the effectiveness of the deontology and teleology manipulation as well as the agentic/communal role prime. Surveys were distributed to 128 undergraduate business students at the University of Texas-Pan American and the University of Texas at Brownsville. Pretest three also contained a follow-up test on revised role prime items. The sample size for the follow-up test was 119.

The interaction effect of role prime by sex was not significant for intention (F < 1) but it did approach significance for ethical judgment (p < .097). Similarly, the interaction effect of prime by occupation was not significant for intention (F < 1) but it approached significance for ethical judgment (p < .103). The main effect of scenario was significant for ethical judgment (p < .019) and approached significance for intention $(F_{1.30} = 2.041, p < .157)$.

The results of pretest three were interpreted as an indication that further pretesting was needed with respect to scenario content. Although the results for the main effect of scenario were promising, it was determined that the teleology content needed to be clarified because of the lack of significance of scenario type on intention. The rationale for this is that the teleology evaluation is predicted to have a direct effect on intention and since the teleology content is the only thing that differed between the scenarios, a lack of significance would suggest that a more effective manipulation is needed.

Initial analysis of the factor analysis on role prime items in pretest three revealed a four-factor solution. The items and more detailed results of analysis are presented in Appendix G. The two factors with the largest Eigen values were determined to contain items that matched the characteristics of agency (α =.67) and communion (α =.78). A subsequent analysis was then conducted on a new list of items that contained most of the items from the first test that loaded on the agency and communion factors and additional items from the Watts et al. (1982) study. The second factor analysis revealed, once again, a four-factor solution. The two primary factors with respect to Eigen values and the

percentage of cumulative explained variance were determined to represent agency $(\alpha=.77)$ and communion $(\alpha=.85)$. The agency and communion factors identified in the second factor analysis of pretest three served as the basis for the final role prime.

Pretest four. Pretest four used a 2 prime condition by 4 scenario factorial design to test the effectiveness of the expanded scenario content manipulations and the prime manipulation. Based on the previous pretest findings, it was determined that it would be beneficial to include the two scenario conditions in which the egoist and utilitarian components of teleology were both positive or negative. The two primary reasons for this change in design were: (1) the final research findings would be more comparable to studies that did not separate the teleology component such as Hunt and Vasquez-Parraga (1993), and (2) it would allow for the analysis of the relative change in subjects' responses when one teleology variable was changed and the other held constant.

Surveys were distributed to 256 undergraduate students at the university of Texas-Pan American and the University of Texas at Brownsville. The main effect of scenario, a test of the scenario manipulations, was found to be highly significant for intention $(F_{3,216} = 17.919, p < .000)$ and ethical judgment $(F_{3,216} = 8.840, p < .000)$. The main effect of role prime approached significance for ethical judgment $(F_{1,216} = 3.529, p < .062)$ but not for intention $(F_{1,216} = 1.351, p < .246)$. The interaction effect of role prime by sex was not significant for intention (F < 1) or ethical judgment (F < 1). The role prime by sex by scenario interaction was not significant for intention $(F_{3,216} = 1.804, p < .147)$ but it was highly significant for ethical judgment $(F_{3,216} = 4.481, p < .004)$.

The finding of a highly significant scenario effect was a positive sign that the scenario manipulations were working. These empirical findings were followed up interviews with five students and five professors at the University of Texas at Brownsville. The subjects were given a copy of all four scenarios at the same time and were asked to rank them on the basis of their ethicalness and on how they would respond. The subjects were then asked to discuss their rankings and give suggestions on how the scenario manipulations could be improved. This exercise led to a number of modifications to the language of the scenarios.

Although the results of the pretests were generally positive with respect to the analysis of the scenario manipulation and the use of the ethical judgment and intention measures, there appeared to be continued problems with respect to the effectiveness of the role prime. The sample may have been one reason for lack of effectiveness of the role prime. Unlike the final sample of managers, which was expected to be made up primarily of subjects born and socialized in the U.S., the sample used in the pretest consisted of almost 23% non-U.S. born and almost 22% non-U.S. raised subjects. This may have affected the results of the test if the roles enacted by the subjects differed based on their nationality or on the place where they were raised.

An ANOVA was performed to investigate the influence of a subject's nationality on their ethical judgments and intentions. The results of this test are presented in Table H.2 in Appendix H. The place in which the subject was raised was also included in the analysis to control for cases where the individual was born in one country and raised in another country. Although they may technically be a citizen of country A, their

socialization would have taken place in country B and consequently, they would most likely behave like citizens from country B when primed. This was a strong possibility in this case because of the closeness between Mexico and the two schools in which the data was collected. This was evidenced by the percentage of Mexican citizens that took part in the study.

Table H.2 shows that the main effect of nationality was significant for intention $(F_{3.238} = 2.577, p < .054)$ and ethical judgment $(F_{3.238} = 2.511, p < .059)$. The main effect of place raised was not significant for either dependent variable (F < 1) for both). Furthermore, the interaction effect of nationality by place raised by prime approached significance for intention (p < .087) but not for ethical judgment (F < 1).

To further test for the effects of nationality and the place raised on subjects' ethical judgments and intentions the interaction effect of prime by sex by scenario was tested once again with nationality and place raised imputed at covariates. Although the significance of the interaction on ethical judgment changed only slightly (p < .002) the interaction effect on intention was now quite significant ($F_{3.214} = 4.648$, p < .004). Recall that the interaction effect on intention was not found to be significant (p < .147) when nationality and place raised were not controlled for, as shown in Table H.1 in Appendix H. From these results, it was determined that part of the problem with the effectiveness of the role prime could be attributed to characteristics of the sample. The results of this test led to the inclusion of questions on nationality and place raised in the final questionnaire. The ramifications of these findings on the effects of nationality on subjects' ethical judgments and intentions are discussed further in Chapter V.

Questionnaire

Twelve versions of the questionnaire, representing each of the groups produced by the manipulations of the treatment variables, were prepared. Special emphasis was placed on creating an instrument that was easy to complete with respect to task instructions and time requirement.

The total length of the survey was two pages printed back-to-back on one 81/2 x 14 inch page. The survey was then folded into four sections. The cover letter and three sections of the survey were placed on the first page. The remaining two sections and the business reply mail information were placed on the second page. Once the subject had completed the survey, he or she was asked to fold the survey as instructed and then seal it with an adhesive provided in the envelope. The adhesives were four different colors so that the returned surveys could be easily classified into male, female, sales, and human resources. Copies of the 12 surveys can be found in Appendix I.

Questionnaire Administration

The sample was reviewed for possible cases of duplication and to confirm zip codes using Microsoft Direct Mail Manager, a direct mail program. Approximately 10% of the zip codes could not be confirmed. There were no duplicate addresses. The first mailing was sent to 4000 subjects and included a randomly selected version of the questionnaire that included the cover letter and the business reply information. Three weeks after the first mailing was sent, a follow-up mailing was sent to a random sample

of 25% of the original sample. This was a 25% larger follow-up sample than the one used in Hunt and Vasquez-Parraga (1993).

Response Rates

Of the 4,000 questionnaires mailed, 551 envelopes were returned including 436 questionnaires and 115 returned mail. This gives an overall response rate of 13.8% and an effective response rate of 11.2% (436/(4000 - 115)). The 115 undeliverable mail were subtracted from the denominator used in the response rate calculation because the researcher knew with certainty that the sample subjects in these cases did not have the opportunity to respond. This method was consistent in theory with that used in Hunt and Vasquez-Parraga (1993). From the 436 answered questionnaires, 429 or 98.4% were useable. This response rate was comparable to the 15% unadjusted rate found in Vasquez-Parraga (1990) and provided a sufficient number of respondents for the analysis.

Analysis of Non-respondents

To assess the generalizability of the findings, an analysis of non-respondents was performed. Following (Armstrong and Overton, 1977) late respondents were used as proxies for non-respondents. Surveys were coded based on the time that they were received over a ten-week period. The majority of the surveys came in two waves. The first was from week two through week three and the second was from week nine through week ten. Because of the experimental research design, differences in respondents were analyzed by prime. No significant differences were found for any of the gender prime,

work prime, or no role prime groups. The variables used in the analysis were ethical judgment and intention as well, as the demographic variables. More detailed results of the analysis can be reviewed in Appendix J.

Readers should pay special attention to the finding in the analysis of nonrespondents that subjects' did not differ in their ethical judgments or intentions based on
the week they responded for any of the three prime conditions. As noted earlier in this
chapter, a finding of a lack of significance for differences between subjects' responses to
the dependent variable measures over different weeks would indicate that the measures
were indeed reliable. This approach to assessing reliability was needed since the
dependent measures were made up of a single item and because the factorial design made
the test-retest approach to establishing reliability impractical.

Sample Characteristics

Table 3.1 shows that the efforts taken to acquire a relatively equal distribution across sexes and work roles, the two key subject characteristics, were successful.

Approximately 228 subjects were males versus 201 females (53.1% versus 46.9%, respectively). Subjects occupying communal work roles made up 58.6% of the sample while those occupying agentic work roles made up 41.4% of the sample. The variables age, years employed at current company, total business experience, compensation, and education were also well distributed and did not appear to be skewed towards category extremes.

Table 3.1

Individual Characteristics of the Sample (N = 429)

Variable and Category		Percent
Sex	Male	53.1
	Female	46.9
Age	Less than 35 years old	18.2
	35-44	32.8
	45-54	34.9
	More than 55	14.1
	(average in years $= 44.3$)	
Occupation	Accounting	21.2
	Human Resources	37.4
	Marketing	21.4
	Sales	20.0
Years Employed at Current Company	Less than 11 years	52.5
	11-20	33.8
	21-30	9.7
	More than 30	4
	(average in years = 11.54)	
Total Business Experience	Less than 11 years	10.9
	11-20	36.5
	21-30	39.8
	More than 30	12.8
	(average in years = 22.3)	

Table 3.1 (Continued)

Table 3.1 (Collinaed)		
Number of Subordinates	Less than 5	39.8
	5-9	28.9
	10-14	10.2
	More than 14	21.1
	(average = 24.5)	
Approximate Compensation	Up to \$49,999	30.1
	\$50,000 - \$89,999	41.3
	\$90,000 or more	28.6
	(average in U.S. \$ = \$88110.0	00)
Type of Compensation	Salary	64.3
	Straight commission	0.7
	Salary and commission	20.7
	Salary and Bonus	11.5
Education	High school or less	5.7
	Some college	25.1
	College graduate	49.4
	Graduate degree	19.9
Place of Birth	United States	96
	Latin America	1.6
	Asia	0.2
	Europe	1.6
Place Raised	United States	98.1
	Latin America	0.2
	Asia	0.5
	Europe	0.9

Three sample characteristics that did raise concern were: the number of subordinates, place of birth, and place raised. The finding that nearly 40% of the subjects had less than five subordinates caused the greatest concern. This may have an adverse effect on the variability of subjects' responses to the work-role primes within work roles. The skewness of the sample distribution toward U.S. born, U.S. raised subjects was not critical to the study but it did preclude a follow-up to a pretest finding of a significant interaction effect of place born by place raised on subjects' ethical orientation.

Methods of Analysis

The two primary analytical methods that will be used in the study are analysis of variance and hierarchical multiple regression. Factor analysis was used in the pretests of the role prime. Non-parametric tests will also be used but only for the analysis associated with objective four. These methods are discussed in the following sections.

Analysis of Variance

Given the use of a randomized subjects experimental design, the primary method of analysis was a two-way analysis of variance (ANOVA). Two-way refers to the fact that the data was classified based on more than one criterion, or factor. ANOVA is used to determine the probability that differences in means across several groups are due solely to sampling error. The primary advantage of ANOVA is that it avoids the Type I error inflation that may occur when multiple t-tests are used (Hair et al., 1995). A Type I error refers to the probability of rejecting the null hypothesis when it should be accepted.

The basic assumptions of the ANOVA model are that each group is an independent random sample from a normal population and that the groups should come from populations with equal variances. The use of randomization in the assignment of subjects to treatment groups satisfied the assumption of independence of errors.

Levene's homogeneity-of-variance test was used to check for violations of the homogeneity of variance assumption. Frequency distributions of the dependent variables were examined for each treatment group to check if the data was normally distributed. Even though the ANOVA procedure is notably robust (SPSS 9.0, 1999), the analysis did not uncover any serious violations of the normality or homogeneity of variance assumptions.

The factors used for separating the data into groups were the presence or absence of a role prime (three treatment groups: work-role prime, gender-role prime, no role prime) and egoist and utilitarian consequences (two treatment groups: positive egoist and negative utilitarian, negative egoist and positive utilitarian). The combination of these three factors produces six treatment groups that are described as follows:

- 1. Gender-role prime with a positive egoist consequence and a positive utilitarian consequence scenario.
- Gender-role prime with a positive egoist consequence and a negative utilitarian consequence scenario.
- 3. Gender-role prime with a negative egoist consequence and positive utilitarian consequence scenario.

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- 4. Gender-role prime with a negative egoist consequence and negative utilitarian consequence scenario.
- 5. Work-role prime with a positive egoist consequence and a positive utilitarian consequence scenario.
- 6. Work-role prime with a positive egoist consequence and a negative utilitarian c consequence scenario.
- 7. Work-role prime with a negative egoist consequence and a positive utilitarian consequence scenario.
- 8. Work-role prime with a negative egoist consequence and a negative utilitarian consequence scenario.
- 9. A positive egoist consequence and a positive utilitarian consequence scenario.
- 10. A positive egoist consequence and a negative utilitarian consequence scenario.
- 11. A negative egoist consequence and a positive utilitarian consequence scenario.
- 12. A negative egoist consequence and a negative utilitarian consequence scenario.

ANOVA was used to estimate the common variance between the factors and the dependent variables (managers' ethical judgments and intentions to punish or reward) and the managers' sex or job type: accounting and human resources or marketing. ANOVA was also used to examine common variance between managers' ethical judgments and managers' intentions to use punishments or rewards to enhance ethical conduct as well as between the dependent variables. The size differences among the groups were not large enough to affect the results of the ANOVA tests.

Multiple Regression

Multiple regression is a multivariate statistical technique used to examine the relationship between a single dependent variable and a set of independent variables (Hair et al., 1995). In this study, multiple regression was used to assess the impact of the egoist and utilitarian components of each ethical scenario on managers' ethical judgments and managers' intentions to use punishments or rewards to enhance ethical conduct when work-role and gender-role primes are present or absent.

Hierarchical regression. Hierarchical regression will be the specific form of multiple regression that will be used in this study. A set correlation technique, such as that used in hierarchical regression, is a flexible data-analytic method that is useful for controlling irrelevant or spurious sources of variance (Kaynak, 1996). Hierarchical regression was chosen because it allows the researcher to specify the entry of independent variables into the equation based on their causal priority (Cohen & Cohen, 1983). A major advantage of the hierarchical multiple regression analysis of data is that once the order of the independent variables has been specified, a unique partitioning of the total variance accounted by the k independent variables may be made.

The four primary assumptions of the multiple regression technique are: 1) the independent variables are nonstochastic and that no exact linear relationship exists between two or more of the independent variables, 2) the error term has an expected value of 0 and constant variance for all observations, 3) errors corresponding to different observations are independent and thus uncorrelated, and 4) the error variable is normally distributed (Pindyck & Rubinfeld, 1991).

Plots of the residual values from the model were examined to check for severe violations of the assumptions. Additionally, the Durbin-Watson statistic and the variance inflation factor (VIF) were used to check for serial correlation and for multicollinearity, respectively. Multicollinearity refers to a situation where multiple independent variables are significantly correlated. This generally occurs when independent variables are haphazardly added to a model in an effort to explain more of the variance in the dependent variable. This results in a case of overfitting (SPSS 9.0, 1999). No severe violations of the primary assumptions were found. Furthermore, the collinearity diagnostics revealed that multicollinearity was not a problem.

Factor Analysis

Factor analysis is used to understand the structure of a correlation matrix (SPSS Inc., 1999). Factor analysis determines the minimum number of independent coordinate axes necessary to plot or reproduce the variation in vectors in the space. Each coordinate axis is termed a dimension or factor (Rummel, 1970). It is an exploratory method that groups variables that are more highly correlated within each factor than with variables with other factors. Factor analysis can be applied to the data of any matrix, even nominally scaled data of a yes-no, or presence-absence type. Additionally, the data used in the factor analysis need not be linear (Rummel, 1970).

The typical factor analysis model expresses each variable as a function of factors common to several variables and a factor unique to the variable:

$$z_j = a_j F_1 + a_{j2}F_2 + ... + a_{jm}F_m + U_j$$

where:

 z_i = the jth standardized variable,

 F_i = the common factors,

m = the number of factors common to all the variables,

 U_i = the factor unique to variable z_i , and

 a_{ii} = the factor loadings.

Typically, the number of factors, m, will be small and the factor loadings, a_{ji} , will be either very high or low for each factor. This minimizes the problems of cross-loading where items load similarly on multiple factors. The unique factors, U, are assumed to be uncorrelated with the common factors and each other (SPSS Inc., 1999).

Non-parametric Tests

Non-parametric tests are needed for the analysis of subjects' responses to the recognition task that is part of objective four. The purpose of this task is to assess subjects' accuracy in identifying fictitious target items. Responses are ranked categorically as correct (5), unsure (3), or incorrect (1). Since the scale is categorical, the assumptions associated with parametric tests such as a normal distribution and equivalence of variance would most likely be violated and the results of such tests may be misleading. The main non-parametric test used in the analysis is the Krushkal-Wallis one-way analysis of variance by ranks. The Mann-Whitney and Jonckheere-Terpstra will also be used in selected situations in the analysis.

Krushkal-Wallis test. This test is essentially the non-parametric version of the parametric t-test. It tests the null hypothesis that the k samples come from the same population. The alternative hypothesis is that at least one of the groups has a different median. In the computation of the Kruskal-Wallis test, the scores from all of the k samples are combined and ranked in a single series from the smallest, rank 1, to the largest, rank N, where N is the total number of independent observations in the k sample. When this is completed, the sum of the ranks in each sample is found and then an average rank for each group is computed (Siegel and Catellan, 1988).

Mann-Whitney U test. This test is quite similar to the Kruskal-Wallis test in that it is computed based on the ranks of the scores. This test is used when the number of groups in the analysis is 2 whereas the Kruskal-Wallis test is used in analyses that include more than 2 groups (SPSS Inc., 1999).

Jonckheere-Terpstra test. The Jonckheere-Terpstra test for ordered alternatives is used to test for differences in the rank order of subjects' categorical responses when the order of the groups is hypothesized to be in a specific a priori sequence. The test involves counting the number of times a response in the *i*th group is preceded by an observation in the *j*th group. As in the case of the Kruskal-Wallis and the Mann-Whitney U tests, the null hypothesis for the Jonckheere-Terpstra test is that the median are the same for all groups. The alternative hypothesis for the Jonckheere-Terpstra test, however, is that the medians are ordered in magnitude. Thus, $H_a: \theta_i \leq \theta_2 \dots \leq \theta_k$ (Siegel and Catellan, 1988). This test will be useful for testing for differences in subjects'

accuracy across the different scenarios when a specific order of responses is hypothesized.

Chapter Summary

The purpose of this chapter was to discuss the research design that will be used in the study. This discussion included explanations of independent variable manipulations and the measures of the dependent variables. This chapter also proposes a 3 (role prime: work, gender, none) x 2 (ethical condition: -deontology/+egoist/-utilitarian, -deontology/-egoist/+utilitarian) factorial design and a discussion of the analytical methods that will be used in the analysis. Issues dealing with questionnaire development and sample selection were also discussed.

CHAPTER IV

RESULTS AND DISCUSSION

The main purpose of this chapter is to test the hypotheses associated with each of the four objectives and thereby develop a better understanding of how a subject's ethical orientation is determined. It begins with a discussion of the interaction effects of genderrole primes and ethical conditions on sex differences in ethical judgments and intentions. This is followed by an investigation of how the presence or absence of work-role primes may affect the significance of sex differences in ethical orientations. This chapter also looks at the effects of enacting communal roles such as feminine gender roles or other oriented work roles versus agentic roles, such as masculine gender roles or self oriented work roles. Finally, the chapter concludes with an exploration of the possibility that differences in ethical orientations associated with changes in social role enactment are due to differences in subjects' preferences for particular types of strategies for processing information.

Gender Roles and Their Effects on Sex Differences in Ethical Orientation

The first objective of the study was to analyze the effect of gender-role primes on the presence of sex differences in managers' ethical judgments and behavioral intentions to use punishments or rewards to enhance the ethical behavior of subordinates. The central argument here is that subjects' ethical orientations are not inherent to their being. That is, in contrast to the socialization school (Gilligan 1982, 1987; Veroff, 1977), ethical judgments and intentions are reflections of the social role enacted at the time responses are made. Primes were used in this study to stimulate subjects to enact different roles. Accordingly, when these newly enacted roles are different for males versus females, sex differences should arise. When the enacted roles are similar across sexes, no differences in judgment and intention should be evident. Hypotheses H1.1.1 and H1.1.2 were put forth to test the effects of subjects' sex and the ethical scenario on subjects' ethical judgments and intentions under the presence or absence of a gender-role prime.

- H1.1.1:The interaction effect of sex by scenario by presence of gender-role prime on ethical judgment is significant.
- H1.1.2:The interaction effect of sex by scenario by presence of gender-role prime on intention to punish or reward is significant.

Although the primes were designed to stimulate the enactment of a social role, not measure a current role, it was reasoned that analyzing subjects' response to the primes may help the researcher identify possible problems with the research design in the event that the empirical tests do not support the hypotheses. Consequently, before the tests of the hypotheses H1.1.1 and H1.1.2 were conducted, subjects' responses to the role primes were factor analyzed to assess their validity and reliability. The results of this analysis are presented in detail in Appendix K.

The factor analysis of the gender-role prime data revealed a two factor solution that captured almost 50% of the variance. The two items were identified as agency (α =.46) and communion (α =.70). Although the alpha for the communal factor would be considered acceptable for exploratory research (Nunnally, 1978) the agentic factor was not found to be sufficiently reliable. The factor analysis of the work-role data revealed a three factor solution that explained almost 67% of the variance. The first two factors were identified as communion (α =.73) and agency (α =.64). The third factor contained only one item, statement seven in section one of the questionnaire, and consequently its reliability, as indicated by Cronbach's α , could not be calculated.

Even though the factor analysis results were promising, given the exploratory nature of the priming aspect of this research, readers should note once again that the role primes were not intended to be accurate measures of the subjects' roles. Rather, they were used to stimulate the enactment of a role. Since the study does not control for the role the person was enacting before they started the survey, subjects' responses may not be accurate representations of their work roles or gender roles. A more accurate indicator of the effectiveness of the role primes is their affect on subjects' responses. Thus, the finding of empirical support for the central proposition that subjects' ethical judgments and intentions change when the social roles they enact change would suggest that the primes were effective.

From Table 4.2, it can be seen that the interaction between sex, scenario, and gender-role prime was highly significant for ethical judgment (p < .001) and for ethical intention (p < .001). Interestingly, the main effect of sex was highly insignificant for both

ethical judgment and intention. Furthermore, the effect of the presence of a gender-role prime, when viewed as a main effect only, is not found to be significant. It is only when the three-way interaction is studied that a high degree of significance arises.

When the analysis was restricted to respondents subjected to the gender-role prime, a similar pattern of interaction was found. In this case the interaction effect of the sex of the subject and the scenario reviewed was highly significant for both ethical judgment (p < .003) and ethical intention (p < .001). When the gender-role prime was not present, sex and the scenario viewed did not have an interaction affect on ethical judgment or intention.

Readers should note that the scenario variable was generally found to be significant. The one exception to this was the effect of the scenario variable on subjects' ethical judgments when the gender-role prime was present. When read in context with the other findings, however, this would suggest that under this condition, subjects were placing a greater emphasis on one component of the scenarios. Thus, this finding of a lack of significance could be considered further evidence of the effectiveness of the primes and the effectiveness of the manipulations of the scenario components.

Although many studies have examined subjects' ethical judgments for differences based on their sex, very few have looked at the interaction of the sex variable with other variables, including the type of scenario. See Table 2.1 in Chapter II for a review of studies that examine the interaction effects of the sex variable. Indeed, the lack of analysis with respect to possible interaction effects of sex and other variables may be the most glaring testament to the lack of methodological rigor in the study sex differences in

ethical judgment literature. The simple fact that there were major differences in the findings of the significance of the sex variable should have indicated to previous researchers that the analysis had to progress past the main effect stage.

The finding that sex differences in ethical judgments and intentions became significant when subjects were exposed to a gender-role prime lends credence to the position of the structural school of thought, that sex differences have more to do with the social roles subjects play rather than the inherent ethicalness of a particular group.

Although the implications of this finding are most noteworthy for the sex differences in ethical judgment literature, with respect to its explanation of the inconsistency of the findings in the literature, it also has important managerial implications. Authors such as Hunt (1999) and Etzioni (1988) suggest that one way to overcome ethical work place problems is to hire workers that stress deontology. Gilligan (1982) writes that women possess a "different voice" with respect to ethics and morality and consequently, followers of this stream of literature may suggest that hiring the inherently more ethical sex would solve many of the problems endured by the most ethically challenged, the corporate sales force. This research would suggest that the basis for the search for the inherently ethical sales employee may be severely flawed.

Table 4.1

Means and Standard Deviations for Ethical Intention and Ethical Judgment by Sex,
Scenario, and the Presence or Absence of a Gender-Role Prime

Dependent Variable	Sex	Scenario	Prime	Mean	Std. Error
Ethical Intention ¹	Male	1.00	1.00	-1.937	.642
		2,000	3.00	-2.500	.605
		2.00	1.00	-6.385	.712
		2000	3.00	-1.300	.812
		3.00	1.00	-3.833	.605
			3.00	-5.040	.513
		4.00	1.00	-5.412	.622
			3.00	-6.667	.605
•	Female	1.00	1.00	-4.167	.524
			3.00	-2.800	.812
		2.00	1.00	-3.500	.686
			3.00	-4.100	.812
		3.00	1.00	-4.167	.605
			3.00	-3.923	.712
		4.00	1.00	-4.385	.712
			3.00	-6.462	.712
Ethical Judgment ²	Male	1.00	1.00	2.313	.182
			3.00	2.222	.172
		2.00	1.00	1.538	.202
			3.00	2.400	.230
		3.00	1.00	2.000	.172
			3.00	1.880	.146
		4.00	1.00	1.882	.177
			3.00	1.611	.172
	Female	1.00	1.00	1.667	.149
			3.00	2.500	.230
		2.00	1.00	2.357	.195
			3.00	1.900	.230
		3.00	1.00	1.944	.172
			3.00	2.154	.202
		4.00	1.00	2.000	.202
			3.00	1.692	.202

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measured on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).
2 Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

Table 4.2

Summary of Analysis of Variance for the Main and Interaction Effects of Sex, Scenario, and the Presence or Absence of a Gender-Role Prime on Subjects' Ethical Judgments and Ethical Intentions

Source	Dependent Variable	df	F	Sig.
_		Between Su	bjects	
Corrected Model	Ethical Intention ^{1.a} Ethical Judgment ^{2.b}	15 15	5.348 2.335	.000 .004
Sex (A)	Ethical Intention Ethical Judgment	1 1	.025 .213	.874 .631
Scenario (B)	cenario (B) Ethical Intention Ethical Judgment		13.082 2.811	.000 .040
Prime (C)	Ethical Intention Ethical Judgment	1	.136 .738	.713 .391
A x B	Ethical Intention Ethical Judgment		1.663 .647	.176 .569
AxC	Ethical Intention Ethical Judgment	1	1.34 4 .018	.247 .894
ВхС	Ethical Intention Ethical Judgment	3 3	5.347 2.221	.001 .086
AxBxC	Ethical Intention Ethical Judgment	3 3	5.907 5.450	.001 .001
error	Ethical Intention Ethical Judgment	234 234		

Table 4.2 (Continued)

	Dependent Variable			
Source		df	F	Sig.
Presence of C	Gender-Prime			
Corrected	Ethical Intention ^c	7	3.925	.001
Model	Ethical Judgment ^d	7	2.130	.045
A	Ethical Intention	1	.559	.456
	Ethical Judgment	1	.187	.666
В	Ethical Intention	3	4.110	.008
	Ethical Judgment	3	.028	.994
AxB	Ethical Intention	3	5.744	.001
	Ethical Judgment	3	4.875	.003
error	Ethical Intention	125		
	Ethical Judgment	125		
Absence of G	ender-Role Prime			
Corrected	Ethical Intention ^e	7	7.741	.000
Model	Ethical Judgment ^r	7	2.910	.008
Α	Ethical Intention	1	.784	.378
	Ethical Judgment	1	.063	.802
В	Ethical Intention	3	13.864	.000
	Ethical Judgment	3	5.365	.002
AxB	Ethical Intention	3	2.498	.064
	Ethical Judgment	3	1.629	.187
error	Ethical Intention	109		
	Ethical Judgment	109		

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measured on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).
2 Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

 $a R^2 = 0.255$

 $b R^2 = 0.130$

 $c R^2 = 0.179$

 $d R^2 = 0.106$

 $e R^2 = 0.328$

 $f R^2 = 0.155$

Summary of Findings for Objective One

The empirical analysis suggests strong support for both H.1.1.1 and H1.1.2. More specifically, the findings from the testing of the first two hypotheses provide support for the contention that the ethical orientation of subjects may not be constant. This finding in itself may explain many of the discrepancies in the sex-differences in ethical orientation literature in that the vast majority of the studies do not examine the variable sex in the context of its interactions with other variables. This occurs even though authors such as Halpern (1992) state that the sex variable has to interact with other variables.

Work Roles and Their Effects on Sex Differences in Ethical Orientation

Whereas the first objective of the study looks at the effects of enacting gender roles on subjects' ethical orientation, the focus of objective two is on the effect of work role primes on the presence of sex differences in managers' ethical judgments and intentions to use punishments or rewards to enhance the ethical behavior of subordinates. The analyses associated with this objective serve as tests of the structural approach to explaining the presence or absence of sex differences in ethical orientation in work environments.

Work-role primes, instead of gender-role primes, are used to stimulate subjects to enact their appropriate work roles. The main proposition being that in the presence of work-role primes, subjects that enact common work-roles (agentic or communal) will not

differ in their ethical orientation by sex. Subjects' declared occupations were used as proxies for their work roles.

Those that identified their occupation as sales management or marketing management were considered to represent agentic work roles because they were believed to place a heavier focus on the outcomes of their actions. Subjects occupying accounting or human resource positions were grouped as communal work roles because of their emphasis on the way jobs are performed rather than their outcomes. The first two hypotheses (H2.1.1 and H2.1.2) deal with communal work roles while the second two hypotheses (H2.1.3 and H2.1.4) deal with agentic work roles.

- H2.1.1:Sex differences in ethical judgments are not significant for subjects enacting communal work roles.
- H2.1.2:Sex differences in intentions to punish or reward unethical behavior are not significant for subjects enacting communal work roles.
- H2.1.3:Sex differences in ethical judgments are not significant for subjects enacting agentic work roles.
- H2.1.4:Sex differences in intentions to punish or reward unethical behavior are not significant for subjects enacting agentic work roles.

A review of the results of the analysis of variance tests for the effects of sex and scenario, shown in Table 4.4, suggest strong support for the hypotheses that sex differences in ethical judgments (H2.1.1) and ethical intentions (H2.1.2) are not significant when the enacted work role for males and females is communal. Neither the main effect of sex nor the sex by scenario interaction effect even approach significance

for ethical judgment (p < .447, p < .437, respectively) or ethical intention (p < .413, p < .132, respectively). Thus, male and female accounting and human resource managers that were subjected to a work-role prime, did not differ in their ethical judgments or intentions, regardless of the scenario. The means of accounting and human resource managers' ethical judgments and ethical intentions in the presence of a work-role prime are presented in Table 4.3.

Table 4.3

Means and Standard Deviations for the Ethical Intentions and Ethical Judgments of Subjects in Communal Work Roles (Accounting or HR Managers) Separated by Sex and Scenario

Dependent Variable	Sex	Scenario	Mean	Std. Error
Ethical Intention ¹	Male	1.00	-3.333	.827
		2.00	-4.556	.955
		3.00	-4.556	.955
		4.00	-6.750	1.013
	Female	1.00	-5.286	1.083
		2.00	-4.600	.906
		3.00	-2.200	1.282
		4.00	-4.750	1.013
Ethical Judgment ²	Male	1.00	2.000	.195
		2.00	1.889	.226
		3.00	1.667	.226
		4.00	1.750	.239
	Female	1.00	1.714	.256
		2.00	2.000	.214
		3.00	2.200	.303
		4.00	1.875	.239

I Managers' ethical intentions to reward or punish subordinates in the scenario were measured on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10). 2 Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

Table 4.4

Summary of Analysis of Variance for the Main and Interaction Effects of Sex and Scenario on the Ethical Intentions and Ethical Judgments of Subjects in Communal Work Roles (Accounting and HR Managers)

Source	Dependent Variable	df	F	Sig.
		Between Sub	ojects	
Corrected	Ethical Intention ^{1,a}	7	1.554	.173
Model	Ethical Judgment ^{2,b}	7	.488	.839
Sex (A)	Ethical Intention	1	.679	.413
	Ethical Judgment	1	.511	.477
Scenario (B)	Ethical Intention	3	1.694	.178
	Ethical Judgment	3	.142	.935
AxB	Ethical Intention	3	1.945	.132
	Ethical Judgment	3	.919	.437
ептог	Ethical Intention Ethical Judgment	60 60		

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measured on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).
2 Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

As in the case of accounting and human resource managers, sales and marketing managers were not expected to differ in their ethical judgments (H2.1.3) or intentions (H2.1.4) based on sex when they were exposed to a work-role prime. Once again, strong support was found for both hypotheses. From Table 4.6, it can be seen that neither the main effect of sex nor the interaction effect of sex by scenario were statistically significant for ethical judgment (p < .596, p < .626, respectively) or ethical intention (p < .188, p < .729, respectively). The main effect of scenario was significant for ethical intention (p < .002), however, but not for ethical judgment (p < .002). The means of sales

 $a R^2 = 0.152$

 $b R^2 = 0.054$

and marketing managers' ethical judgments and ethical intentions in the presence of a work-role prime can be reviewed in Table 4.5.

Table 4.5

Means and Standard Deviations for the Ethical Intentions and Ethical Judgments of Subjects in Agentic Work Roles (Marketing Managers) Separated by Sex and Scenario

Dependent Variable	Sex	Sex Scenario Mean		Std. Error
Ethical Intention ¹	Male	1.00	2.000	1.586
		2.00	.125	1.373
		3.00	-4.125	1.373
_		4.00	-4.000	1.737
	Female	1.00	1.333	2.242
		2.00	-2.714	1.468
		3.00	-4.000	2.746
		4.00	-7.600	1.737
Ethical Judgment ²	Male	1.00	2.833	.492
		2.00	2.500	.426
		3.00	2.125	.426
_		4.00	2.200	538
_	Female	1.00	1.667	.695
		2.00	2.429	.455
		3.00	2.500	.851
		4.00	2.200	.538

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measured on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).
2 Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

In summation, strong support was found for the hypotheses that were used to test the proposition that sex differences in ethical orientations should not exist when both males and females enact similar work roles. These findings lend support for the contention in Eagly's (1987) social role theory that sex differences are generally present when males and females occupy separate work roles.

Table 4.6

Summary of Analysis of Variance for the Main and Interaction Effects of Sex and Scenario on the Ethical Intentions and Ethical Judgments of Subjects in Agentic Work Roles (Marketing Managers)

Source	Dependent Variable	df	F	Sig.
		Between Sub	ojects	
Corrected Model	Ethical Intention ¹ Ethical Judgment ²	7 7	3.657 .364	.004 .917
Sex (A)	Ethical Intention Ethical Judgment	1	1.802 .287	.188 .596
Scenario (B)	Ethical Intention Ethical Judgment	3 3	6.261 .113	.002 .952
A x B	Ethical Intention Ethical Judgment	3 3	.435 .589	.729 .626
error	Ethical Intention Ethical Judgment	36 36		

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measured on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).
2 Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

These findings also suggest another source of research error in the ethics literature in which researchers assume that they have controlled for the influence of one's occupation by using managers or MBAs as their sample. Even if researchers attempt to control for the effect of subjects' occupational roles, through the analysis of its interaction with other variables or through the use of an analysis of covariance, the true effect of their work role may not arise because they may not have enacted that particular role while they were carrying out the study tasks.

Eagly (1987) and Eagly and Wood (1991) also suggest that subjects, regardless of their sex, that occupy different work roles, should differ in their ethical orientation. Thus, in the presence of work-role primes, individuals that enact different work roles should differ in their ethical orientation. In the context of this study, accounting and human resource managers (communal work roles) should differ in their ethical judgments (H2.2.1) and ethical intentions (H2.2.2) from sales and marketing managers (agentic work roles).

- H2.2.1:Significant differences in ethical judgments exist between subjects that enact agentic versus communal work roles.
- H2.2.2:Significant differences in intentions to punish or reward unethical behavior exist between subjects that enact agentic versus communal work roles.

The analysis of variance for the main effect of work role, found in Table 4.8, suggests strong support for hypotheses 2.2.1 and 2.2.2. When exposed to a work role prime, accountants and human resource managers differed significantly in their ethical judgments ($F_{1.104} = 6.494$, p < .001) and ethical intentions ($F_{1.104} = 11.284$, p < .001) from sales and marketing managers. The main effect of scenario was highly significant for ethical intentions (p < .000) but not for ethical judgments (F < 1). More specifically, it can be seen in Table 4.7, that accounting and human resource managers judged the actions in all four scenarios to be less ethical than sales or marketing managers. Similarly, accounting and human resource managers were more severe in their punishments for scenarios one and two and did not differ in the severity of their punishments for scenarios three or four.

Table 4.7

Means and Standard Deviations for the Ethical Intentions and Ethical Judgments of Subjects Separated by Work Role and Scenario in the Presence of a Work-Role Prime

Dependent Variable	Work Role	Scenario	Mean	Std. Error
Ethical Intention ¹	Communal	1.00	-4.053	.763
		2.00	-4.579	.763
		3.00	-3.714	.889
_		4.00	-5.750	.831
_	Agentic	1.00	1.778	.108
	_	2.00	-1.200	.859
		3.00	-4.100	.052
		4.00	-5.800	1.052
Ethical Judgment ²	Communal	1.00	1.895	.206
		2.00	1.947	.206
		3.00	1.857	.240
_		4.00	1.813	.225
	Agentic	1.00	2.444	.300
		2.00	2.467	.232
		3.00	2.200	.284
		4.00	2.200	.284

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measured on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10). 2 Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

The finding that subjects did not differ in their ethical judgments and intentions by sex, when subjects were enacting similar work roles, but did differ by sex when enacting separate sex roles provides even more support for Eagly's (1987) social role theory. It also lends credibility to the concept of using primes to stimulate the enactment of social roles by study subjects. Although the problems associated with subjects enacting a neutral social role, such as the study subject's role, while completing study tasks have been discussed in the literature as early as Deaux (1984), the priming technique has not appeared in the sex differences in ethics literature. The results of this research, along

with the results of Meyers-Levy's research in consumer behavior (1988, 1989a, 1989b, 1991), provide further evidence for the contention that subjects' enacted role needs to be controlled for, or at least taken into account, when the results of judgment and intention measures are interpreted.

Table 4.8

Summary of Analysis of Variance for the Main and Interaction Effects of Work Role and Scenario on Subjects' Ethical Intentions and Ethical Judgments When a Work-Role Prime is Present

Source	Dependent Variable	df	F	Sig.
		Between Su	bjects	
Corrected	Ethical Intention ^{a,1}	7	6.377	.000
Model	Ethical Judgment ^{b,2}	7	1.152	.337
Work Role (A)	Ethical Intention	1	11.284	.001
	Ethical Judgment	l	6.494	.012
Scenario (B)	Ethical Intention	3	8.399	.000
	Ethical Judgment	3	.339	.797
ΑxΒ	Ethical Intention	3	4.882	.003
	Ethical Judgment	3	.079	.971
error	Ethical Intention	104		
	Ethical Judgment	104		

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measured on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).
2 Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

Summary of Findings for Objective Two

In summary, all hypotheses (H2.1.1 to H2.2.2) developed to test the propositions

 $a R^2 = 0.300$

 $b R^2 = 0.072$

associated with the second objective of study, to analyze the effects of work role primes on the presence of sex differences in managers' ethical judgments and intentions to use punishments or rewards to enhance the ethical behavior of subordinates, were strongly supported. Taken together with the results of empirical tests carried out under objective one, these results provide comprehensive experimental evidence in support of the structural approach to explaining sex differences in ethical behavior. Contrary to the socialization approach (Gilligan 1982, 1987), subjects do not appear to be inherently ethical or unethical. Rather, their ethical orientation is subject to change depending on the social role that is enacted at the time responses are solicited.

To this point, the focus of the study has been on finding support for the presence or absence of sex differences in ethical orientation across gender roles and work roles but has not explored the relationship between communal and agentic roles and the egoist and utilitarian consequences of the acts in the scenarios. The following section will analyze the effects of considering egoist and utilitarian consequences on subjects' ethical orientations.

Work Roles, Egoist and Utilitarian Consequences, and Managers' Judgments and Intentions

Although Hunt and Vitell (1986) suggest that it would be logical to split the teleology evaluation in the H-V model of ethics into egoist and utilitarian consequences, this adaptation of the model had not yet been tested in the literature. In this study, however, the expansion of the H-V model to include the separate components of

teleology, egoism and utilitarianism, was needed to analyze the effect of considering individual and organizational consequences on managers' ethical judgments of behavior when subjects are enacting an agentic role versus a communal role.

Communal Work Roles and Teleology

In the literature, the performance of a communal role has been characterized as having a sensitivity to the concerns of others with an emphasis on interpersonal affiliation and the pursuit of goals that lead to harmonious relations (Meyers-Levy, 1988). In this study, accounting and human resource managers were considered to be examples of work roles that were communal in nature. If these managers indeed enact communal roles when subjected to work-role primes, then it is possible that they would be influenced more by utilitarian message cues because of their preference for information that impacts their ability to establish and maintain harmonious relationships. To test this proposition, the following hypotheses were presented:

- H3.1.1:Utilitarian message cues have a significant affect on the ethical judgments of subjects enacting communal work roles.
- H3.1.2:Utilitarian message cues have a significant affect on the intentions of subjects enacting communal work roles.

Hierarchical regression analysis was used to determine the effects of the H-V model variables as well as selected demographic variables on subjects' ethical judgments and intentions. These variables were entered in two groups. The first group of variables entered into the model contained the H-V model variables because of their theoretical

relationship with the dependent variables. Following the H-V model, the egoist and utilitarian independent variables were the first variables entered into the analysis for the dependent variable ethical judgment. For the dependent variable intention to punish or reward, the independent variables, egoist, utilitarian, and dependent variable ethical judgment, were entered first. Furthermore, for communal work roles, the utilitarian variable proceeded the egoist variable whereas in the agentic work role analysis the egoist variable proceeded the utilitarian variable. This was done to be consistent with the hypothesized relationships. Subsequent analysis, however, revealed that the order of the teleology variables did not affect the regression results.

The second group of variables entered into the regression analysis was made up of the selected demographic variables. The variables were chosen based on a review of the literature found in Chapter II of this study. Variables such as age (Callan, 1992; Jones & Gautschi, 1988; Hunt & Vasquez-Parraga, 1993), education (Beltramini et al., 1984; Chonko & Hunt, 1985; Laczniak & Inderrieden, 1987), experience (Callan, 1992; Dubinsky & Ingram, 1984), nationality (Hegarty & Sims, 1978, 1979; White & Rhodeback, 1992; Becker & Fritzsche, 1987), number of subordinates (Hunt & Vasquez-Parraga, 1993), and income (Chonko & Hunt, 1985) were included in previous studies of ethical orientation. The type of compensation was included because of the proposed relationship between commission-based pay and outcome-based behavior (Herbert, 1982). Tests for multicolinearity, a typical problem encountered in behavioral research, did not reveal any significant problems for any of the regressions reported in this section

as none of the variables had variance inflation factors (VIF) approaching 10, the accepted test statistic for multicolinearity (SPSS Inc., 1999; Hair et al., 1995).

The regression results for the analysis of the effects of the predictor variables on accounting and human resource managers' ethical judgments and intentions are summarized in Table 4.9. Equation 1 shows that neither egoist nor utilitarian message cues played a significant role in determining the ethical judgments of accountants and human resource managers. The F-statistic for equation 1 (F = .576) suggests, however, that the hypothesis that each coefficient in the equation is zero is not rejected. In other words, none of the variables entered into the model explained a significant proportion of the variance of the ethical judgment dependent variable.

Hypothesis 3.1.1 stated that both egoist and utilitarian message cues would have a significant impact on the ethical judgments of subjects enacting communal work roles. According to the H-V model of ethics (1986), evaluations of both deontology and teleology should have a significant effect on subjects' ethical judgments. In the case of accounting and human resource managers, however, the teleology variables did not explain a significant amount of the variance in ethical judgments. A possible explanation for this is that subjects' use of a detailed information processing strategy caused the managers in the study to carefully examine the deontology condition in the survey. This would be consistent with the findings of Hunt and Vasquez-Parraga (1993). Although they found the teleology variable to be a significant predictor of subjects' ethical judgments, it explained less than two percent of the variance.

Table 4.9

Summary of Hierarchical Regression Analysis for Variables Predicting Accounting and Human Resource Managers' Ethical Judgments and Ethical Intentions (N = 88)

Dependent	Predictor		Std.				\mathbb{R}^2	\mathbb{R}^2
Variable	Variable	В	Error S	Std. B	t	Sig.	(partial) (
1. Ethical	 						(
Judgment	Intercept	2.264	.746		3.034	.004		.089ª
J	•	-2.501E-02	.021	312	-1.188	.241	171	
	Company exp.		.012	.066	.353	.726	.051	
	Total experience		.021	.274	.921	.362	.133	
	Subordinates	1.475E-03	.001	.168	1.112	.272	.160	
	Salary	-2.095E-06	.000	114	719	.476	104	
	Compensation	-5.968E-02	.106	090	561	.577	082	
	Education	4.880E-02	.131	.057	.371	.712	.054	
	Place of Birth	.246	.213	.167	1.153	.255	.166	
2. Ethical							· · · · · · · · · · · · · · · · · · ·	
Intention	Intercept	1.622	.826		1.965	.055	****	.394 ^b
	Ethical							
	judgment	2.551	.431	.628	5.923	.000	.628	
3. Ethical								
Intention	Intercept	1.744	.798		2.186	.033		.447°
	Ethical intention	2.492	.416	.613	5.991	.000	.635	
	Utilitarian	0.631	.280	.231	2.254	.028	.296	
4. Ethical								
Intention	Intercept	.813	2.524		.322	.749		.495 ^d
	Ethical							
	judgment	2.402	.451	.591	5.321		.621	
	Utilitarian	.599	.297	.219	2.017	.050	.288	
	Age	4.389E-02	.066	.135	.662	.511	.098	
	Company exp.	3.665E-02	.039	.136	.944	.350	.139	
	Total experience	-3.780E-02	.065	132	580	.565	086	
	Subordinates		.004	030	256		038	
		-1.140E-05		153	-1.256		184	
	Compensation	121	.330	045	365	.717	054	
	Education	1.253E-02	.412	.004	.030	.976	.005	
a A divisted D2 -	Place of Birth	.392	.670	.066	.585	.562	.087	

aAdjusted $R^2 = -.066$, F = .576, p = .793.

bAdjusted $R^2 = .383$, F = 35.087, p = .000.

cAdjusted $R^2 = .426$, F = 21.409, p = .000.

dAdjusted $R^2 = .383$, F = 4.410, p = .000.

It is also possible that the test of this hypothesis was underpowered. The term power is used in the context of the probability that a null hypothesis will be rejected. In other words, it is the probability that a Type II error will be committed when testing hypotheses. A Type II error refers to a situation where a research mistakenly overlooks significant differences that do exist (Mone, Mueller, & Mauland, 1996). Statistical power is calculated based on the following four parameters: a) the size of the sample, b) the significance criterion (α), and c) the effect size (Cohen, 1977).

In light of the possibility that the hypothesis concerning the affect of the utilitarian variable on the ethical judgments of accounting and human resource managers was not supported because of a lack of statistical power (H3.1.1), a power analysis was performed to determine the probability that the researcher was committing a Type II error. Given that Hunt and Vasquez-Parraga (1993) found the teleology variable to explain slightly less than 2% of the variance of the ethical judgment dependent variable, it was determined that the utilitarian variable should not be dropped from the analysis if it explained at least 1% of the variance in the current study (1% of the variance is one half of the total variance explained by the teleology variable in Hunt & Vasquez-Parraga, 1993). Thus, the researcher would like to guard against the chance that $r_{Y(X \times A)}^2 = .01$.

Y refers to the dependent variable ethical judgment. X is made up of the utilitarian variable. A is made up of the egoist variable, the second component of the teleology variable.

As stated, it is assumed that the total variance explained by the two teleology variables together will be 2%. Thus, the proportion of variance in Y explained by the utilitarian and egoist variables is $R_{Y \times A,B}^2 = .02$ and f^2 is equal to .01/(1-.02) = .01. **B** is made up the utilitarian variable. The term f² is the effect size that is used to calculate power when regression analysis is used. For this particular case, $f^2 = (R_{Y \times A,B}^2 - R_{Y \times A}^2) \div (1 - R_{Y \times A,B}^2)$ (Cohen, 1977). The value of f^2 is then used, in addition to the denominator degrees of freedom (v), to calculate an L statistic. v is calculated by subtracting one plus the number of variables in set A and in set B from the sample size (N). In this case, v = 88 - 1 - 2 - 1 = 84. The L statistic (L = f^2v) is then used as a reference point, along with the significance criterion (α) and the number of variables in set **B** (u), to determine the power of the test in published tables of power values. L in this case is equal to .01(84) or .84. If the significance criterion is relaxed to .10, the following specifications would be used to calculate power: $\mathbf{u} = 1$, $\mathbf{L} = .84$, and

The results of the power analysis suggest that the test was indeed underpowered.

The remedy for this situation may be to increase sample size. This may be unreasonable, however, if the increase in sample size was dramatic. To calculate the sample size to

 α = .10. Because the power tables in Cohen (1977) do not include figures for values of L

less than 2, the power of the test was assumed to be less than 41, the power figure for

L = 2. Thus, the probability that a Type II error was committed was greater than 60%

(1-.40).

produce a statistical power of 80, the recommended limit by Cohen (1977), the L in this case would have to equal 6. Remember that the f² was equal to .01 and consequently, for L to equal 6, v would need to greater than 600. Because the number of variables in A and B would remain the same, N would equal 604. In other words, the number of accounting and human resource managers in the work role prime condition would need to be slightly greater than 600. Furthermore, because of the factorial design of the study (3 prime x 2 work role), the overall sample would need to be approximately 3600. It must then be concluded therefore, that although the power of the test of H3.1.1 was low, the effect size must also be very low and consequently, designing a study that would have the power to adequately test this hypothesis along with the other hypotheses in the study may not be feasible.

Although Hunt and Vasquez-Parraga (1993) did find the teleology variable to be significant, the variance described by this variable was, as noted, less than 2%. The effect size for the variable in that study was calculated to be .0121 ($f^2 = .012/(1-.012)$). N was equal to 747. The significance criterion was set at .05. Three variables were included in the analysis: deontology, teleology, and scenario. Thus, the number of variables in the set A would also be equal to three. v is equal to 743(N-A-1). From these specifications, L is calculated as 9.0 (f^2 v = .0121(743)) and the power of the test is equal to 70.5. Thus the power of the test in Hunt and Vasquez-Parraga (1993) was much higher than in the current study. It should be noted, however, that in that study the sample was not divided in the analysis based on sex or occupation. When the effect of the teleology variables on the ethical judgment dependent variable were regressed using the whole sample, the

results were very similar to that of Hunt and Vasquez-Parraga (1993). The total variance explained by the teleology variable was .024, significant at p < .002. N is equal to 431, u is equal to two, f² is equal to .025, L is equal to 10.5, and the power of the test is approximately 80.

The main predictor variable of accounting and human resource managers' intentions to punish or reward subordinate behavior is their ethical judgments. This variable explains approximately 39.4% of the variance. Equation 3, however, shows that the utilitarian variable is also a significant predictor of accounting and human resource managers' intentions, explaining more than 8.8% of the variance. The third model of intentions, shown in equation 4, included most of the demographic variables but did not increase substantially the explained variance of subjects' intentions. The adjusted R² for equation 4 is actually lower than the adjusted R² for equation 3 (.383 and .426 respectively).

Although the focus of the hypotheses in this section is on the effects of the teleology evaluation, the egoist and utilitarian variables, this does not suggest a reduced role for the ethical judgment variable, which has been shown to be the primary determinant of intentions (Hunt & Vasquez-Parraga, 1993; Menguc, 1998). Thus, the finding that ethical judgment was the main predictor of accounting and human resource managers' intentions was consistent with the H-V model of ethics (1986). The findings that utilitarian message cues, but not egoist message cues, were significant predictors of the intentions of accounting and human resource managers suggests support for the

hypothesis that subjects enacting a communal work role would include utilitarian evaluations in their intentions.

Although the effect of the egoist variable on the intentions of accounting and human resource managers was not included in H3.1.2, it may be postulated by the reader that the lack of significance of the egoist variable was due to the sample size used in the test. In other words, it may be suggested that the test was not powerful enough to detect the significant effect of the egoist variable.

To address this potential issue, a power analysis was used to calculate the probability the egoist variable was wrongly dismissed. The partial correlation statistic for the egoist variable was .162. Thus, $r_{Y(.X\times A)}^2 = .03$. From Table 4.9, the proportion of variance in the intention variable (**Y**) explained by the ethical judgment variable and the utilitarian variables (**B**) is approximately 45%. If **A** contains the egoist variable, then $R_{Y\times A,B}^2 = .48$ and f^2 is .03/(1-.48) = .052. **v** is equal to 84 (88 - 1 - 2 -1). **L** is therefore equal to .052(84) or 4.4. At a significance level of .1 (α), α , α = 1, and α = 4.4, the power of the test, as determined by linear interpolation, is approximately 67.5. The probability of a Type II error, therefore, would be less than 32.5%.

Although the power level is below 80, the level suggested by Cohen (1977), the significance of the egoist variable in the test (.262) did not even approach the .10 significance level. Thus, it can be suggested that the researcher can safely determine that the decision to eliminate the egoist variable was justified.

Agentic Work Roles and Teleology

In contrast to subjects enacting communal work roles, those enacting agentic work roles are expected to have a preference for egoist message cues because of their consistency with a social role that is focused primarily with individual goals. As previously stated in Chapter II, egoist message cues are more analogous to self-oriented information because of their focus on the consequences of the act in terms of the individual. In this study, sales and marketing managers that have been exposed to a work-role prime are considered representatives of subjects that enact agentic work roles. Hypotheses 3.2.1 and 3.2.2 were developed to test the proposition that the influence of egoist message cues on managers' ethical orientations is greater than the influence of utilitarian message cues when subjects are enacting agentic roles.

- H3.2.1:Egoist message cues have a significant affect on the ethical judgments of subjects enacting agentic work roles.
- H3.2.2:Egoist message cues have a significant affect on the intentions of subjects enacting agentic work roles.

Table 4.10 shows the regression results for the analysis of the effects of the independent variables identified in the study on subjects' ethical judgments and intentions to punish or reward subordinate behavior. Three models of subjects' intentions were found to be significant. These are represented in Table 4.10 as equation 2, 3, and 4.

Consistent with the H-V model of ethics, equation 1 shows that the main predictor variable of intentions is ethical judgment. This variable explains approximately 37% of

the variance in the dependent variable. Equation 3, however, shows that the addition of the egoist variable to the model increases the R² to .489. The egoist variable actually explains 18.6% of the variance in sales and marketing managers' intentions. The amount of variance explained by subjects' ethical judgments decreases to 33% in equation 3, down from 37% in equation 2.

As in the analysis of the effects of the teleology variables on the ethical judgments of accounting and human resource managers, a power analysis was used to calculate the probability the utilitarian variable was wrongly dismissed from the model. The partial correlation statistic for the egoist variable was .229. Thus, $r_{Y(.Y\times A)}^2 = .05$. From Table 4.10, the proportion of variance in the intention variable (**Y**) explained by the ethical judgment variable and the egoist variable (**B**) is approximately 49%. If **A** contains the utilitarian variable, then $R_{Y\times A,B}^2 = .54$ and f^2 is .05/(1-.54) = .11. **v** is equal to 51 (56 - 1 - 2 - 1). **L** is therefore equal to .11(51) or 5.61. At a significance level of .1 (α), α 0, α 1, and α 2 = 5.61, the power of the test, as determined by linear interpolation, is approximately 76.2. Thus, the probability of a Type II error would be less than 24%. Although the power level is below 80, the level suggested by Cohen (1977), the significance of the utilitarian variable in the test was .271. This was far below even the relatively weak .10 significance level.

Table 4.10

Summary of Hierarchical Regression Analysis for Variables Predicting Sales and Marketing Managers' Ethical Judgments and Ethical Intentions (N = 56)

Domandant	Dundistan		C+1				D2	D2
Dependent Variable	Predictor Variable	В	Std.	C+4 D		C:~	R2	R2
1. Ethical	v ariable	В	Error	Std. B	t	Sig.	(partial)	(model)
Judgment	Intonomt	3.367	1.082		3.112	004		.211ª
Judgmem	Intercept Age	1.454E-02	.022			.508		.211
	•		.022		843	_		
	Company exp. Total experience	-2.174E-02	.020	177	043	.400	100	
	rotal experience	-3.137E-02	.030	203	-1.048	304	198	
	Subordinates	-2.643E-03	.010		278			
	Subordinates	3.248E-06	.000		1.074			
	Compensation	.192	.161		1.187	_		
	Education	523	.267		-1.955		352	
2. Ethical	Lucation	523	.207	407	-1.933	.001	552	
Intention	Intercept	2.176	1.487		1.463	153		.372b
michion	Ethical	2.170	1.407		1.405	.155		.572
	judgment	2.714	.613	.610	4.425	000	.610	
3. Ethical	jaagiioiit	2.7.1	.015	.010	1. 123	.000	.010	
Intention	Intercept	2.996	1.396		2.145	.040		.489°
	Ethical	2.550	1.570					
	judgment	2.311	.582	.520	3.974	.000	.575	
	Egoist	1.515	.561	.353	2.701		.431	
4. Ethical								
Intention	Intercept	.539	4.466		.121	.905		.562 ^d
	Ethical	-						
	judgment	2.689	.687	.605	3.913	.001	.616	
	Egoist	1.278	.632	.298	2.022	.054	.375	
	_	-8.057E-02	.077	226	-1.053	.302	206	
	Company exp.	1.910E-02	.091	.039	.209	.836	.042	
	Total experience							
	•	.183	.108	.384	1.696	.102	.321	
	Subordinates	-3.030E-02	.034	147	895	.379	176	
	Salary	-1.697E-05	.000	333	-1.555	.133	297	
	Compensation	-5.926E-02	.582	017	102	.920	020	
	Education	1.034	1.010	.181	1.024	.316	.201	
a Adjusted P2 =	0.06 E = 1.020 n = 4	24						

aAdjusted $R^2 = .006$, F = 1.029, p = .434.

bAdjusted $R^2 = .353$, F = 19.580, p = .000.

cAdjusted $R^2 = .457$, F = 15.304 p = .000.

dAdjusted $R^2 = .404$, F = 3.559, p = .006.

The final model of sales and marketing managers' intentions has a higher R² than that of equation 3 (.562 versus .489). Thus, it explains more of the variance in the dependent variable, but it does so only by the addition of seven more independent variables, none of which are significant. In sum, the findings that the egoist variable and the ethical judgment variables were the main predictors of sales and marketing managers' intentions suggest strong support for hypothesis 3.2.2.

As in the case of accounting and human resource managers, none of the independent variables were found to be significant predictors of sales and marketing manager's ethical judgments as evidenced by the insignificant F-value for equation 1 in Table 4.10. Once again, it is quite possible that the lack of significance for the independent variables is due to subjects emphasis on the deontology content when making their ethical judgments. These findings, however, do not support hypothesis 3.2.1 and therefore it must be rejected.

As in the test of H3.1.1, however, it is also quite possible that the test was underpowered. To determine the power of the test, it was once again assumed that the total variance explained by the two teleology variables together will be 2%. Thus, the proportion of variance in Y explained by the utilitarian and egoist variables is $R_{Y\times A,B}^2 = .02$ and f^2 is .01/(1-.02) = .01. Because the only difference between the power analysis for H3.2.1 and H3.1.1 is the size of the sample, the specifications for the analysis are almost the same with the exception of v. The value of v for the marketing and sales management sample is 51 (N -A -B -1). Therefore, L in this case is equal to

.01(51) or .51. If the significance criterion is relaxed to .10, the following specifications would be used to calculate power: $\mathbf{u} = 1$, $\mathbf{L} = .51$, and $\mathbf{\alpha} = .10$. Because the power tables in Cohen (1977) do not include figures for values of \mathbf{L} less than 2, the power of the test was assumed to be less than 41, the power figure for $\mathbf{L} = 2$. This would suggest, once again, that the effect size for the relationship between the teleology variables and the ethical judgment dependent variable is quite small and the increases in the sample size needed to detect their significance in this study were unfeasibly.

Summary of Findings for Objective Three

Table 4.11

The results of the regression analysis on the predictor variables of subjects' ethical judgments and intentions are summarized qualitatively in Table 4.11.

Summary of the Predictors of Managers' Ethical Judgments and Intentions

Work Role	Ethical Judgment	Intention to Punish/Reward
Accounting and HR Managers	No significant predictors	Ethical judgment, Utilitarian
Sales and Marketing Managers	No significant predictors	Ethical judgment, Egoist

The finding that teleological components do not have a significant effect on the ethical judgments of subjects enacting agentic or communal work roles would suggest that their main focus when making this decision was the deontology component. This position is supported by the finding that the demographic independent variables were also

insignificant. This finding is also consistent with the H-V model of ethics in that Hunt and Vitell (1986) suggest that the deontology evaluation plays a much greater role in subjects ethical judgments than teleology evaluation. Although Hunt and Vasquez-Parraga (1993) found the teleology variable to be significant, it only explained 1.2% of variance in subjects' ethical judgments, in comparison to the deontology variable which explained 71.3% of the variance. Furthermore, unlike past studies in this area, this study separated the teleology component into two separate variables; egoism and utilitarianism. It is therefore possible that the separate teleology components were simply not strong enough to attract the attention of subjects while they were making their ethical judgments.

The analysis of the effects of the teleology components of the intentions of subjects enacting agentic work roles versus communal work roles provided strong support for the associated hypotheses. Both hypotheses addressing the main predictors of sales and marketing managers' intentions (H3.1.2 and H3.2.2) were supported. As predicted, subjects enacting agentic work roles focused more on egoist message cues whereas subjects enacting communal work roles focused more on utilitarian message cues when making their intentions to punish or reward subordinate behavior.

Ethical Orientation and Information Processing Strategies

The fourth objective of the study was to examine the relationship between ethical orientation and the use of information processing strategies. Meyers-Levy and Maheswaran (1991) suggest that subjects that enact communal roles are more likely to use a detailed processing strategy while those that enact agentic roles tend to use

heuristic-based, or schema-based processing strategies. When subjects use a detailed information processing strategy they generally include all of the message cues in their judgments and consequently, they are less likely to be swayed by individual cues. In contrast, when subjects use a schema-based processing strategy they tend to judge themes rather than facts (Reder & Anderson, 1980).

Reder and Anderson (1980) and Meyers-Levy and Maheswaran (1991) used subjects' ability to distinguish between fictitious and real items from a scenario or product description to test if subjects are using a detailed versus a schema-based information processing strategy. When individuals use a detail-based information processing strategy, their recognition skills are highly accurate (Meyers-Levy & Maheswaran, 1991). The accuracy of subjects that use a schema-based information processing strategy, however, was contingent on whether or not the target cue was consistent with the message implied theme or schema.

More specifically, subjects that used a schema-based processing strategy accurately recognized target items that were actually in the scenario and were consistent with the message-implied theme and when the target items were not in the scenario and/or not consistent with the implied theme. These same subjects were not very accurate in differentiating between real and fictitious target items when the target items were consistent with the schema but were not in the scenario or when the target items were in the scenario but were inconsistent with the schema (Meyers-Levy & Maheswaran, 1991).

In this study, subjects were presented with eight statements dealing with the contents of the scenario. Subjects were asked to indicate if the statement referred to an

actual event explicitly described in the scenarios by answering yes, no, or unsure. The "unsure" alternative was added to compensate for problems that may arise because of subjects guessing. All eight items were fictitious. Subjects' responses to the statements were coded categorically. A response of no was coded as 5, unsure as 3, and yes as 1. Since all statements were false, regardless of the scenario, indicated a correct answer or complete accuracy whereas a 1 represented an incorrect answer or complete inaccuracy. The rationale for assigning a 5 for correct answers and a 1 for incorrect answers was to lessen confusion in the interpretation of the results of the empirical analyses. Thus, a decrease in a group's error score would represent a decrease in their accuracy in identifying fictitious target items.

The first four statements dealt with the inherent rightness or wrongness of the scenario, the deontology evaluation. Statements five and six were consistent with the positive egoist theme in scenarios one and two and statements seven and eight were consistent with the positive utilitarian theme in scenarios one and three. The rationale for varying the focus of each statement was based on the proposition that as subjects' ethical judgments and intentions become more positive, their accuracy in distinguishing between fictitious and real target items will decrease.

Agentic Work Roles and Scenario Content Accuracy

The first hypothesis developed to test the proposition that subjects enacting agentic work roles would differ in their use of information processing strategies (Proposition 4.1) is as follows:

H4.1.1:Subjects that enact agentic roles will be less accurate in their identification of fictitious items that are consistent with the theme of the egoist message cues than fictitious items that are inconsistent with the theme of the egoist message cues.

It should be noted that, because all statements in this study were fictitious, support for hypothesis 4.1.1 would come in the form of lower accuracy scores for scenarios one and two, the two scenarios in which the egoist component was positive, than for scenarios three and four.

Because of the categorical nature of the dependent variables used to assess subjects' accuracy in identifying fictitious target items, the non-parametric Kruskal-Wallis test was used. This test is a nonparametric version of the parametric one-way analysis of variance for independent samples, calculated based on the sums of the ranks of the combined groups rather than group means (SPSS Inc., 1999). As in the parametric t-test, the null hypothesis is that the independent groups are not statistically different. The grouping variable in this analysis is the scenario version.

The Krushkal-Wallis test results for differences in the measures of sales and marketing managers' accuracy in identifying fictitious target items across the four scenarios are shown in Table 4.12. Each group is ranked from smallest too largest.

Given the coding of the accuracy variables in this study, 5 for a correct answer and 1 for an incorrect answer, the lowest rank group would represent the lowest level of accuracy while the highest ranked group would represent the highest level of accuracy. The means for sales and marketing managers' measures of accuracy are shown in Table 4.13.

Table 4.12

Krushkal-Wallis Test Results for Differences in Sales and Marketing Managers'

Accuracy in Identifying Fictitious Target Items Grouped by Scenario (N = 56)

Dependent Variable	Scenario	Rank	Chi Square	df
Deontology accuracy ¹	1.00	30.82	2.527	3
	2.00	31.95		
	3.00	25.04		
	4.00	24.96		
Egoist accuracy ²	1.00	14.50	21.766***	3
	2.00	23.66		
	3.00	37.54		
	4.00	38.32		
Utilitarian accuracy ³	1.00	15.68	12.852**	3
	2.00	30.66		
	3.00	28.42		
	4.00	35.71		
Teleology accuracy ⁴	1.00	12.82	18.709***	3
	2.00	26.74		
	3.00	33.50		
	4.00	38.93		
Total accuracy ⁵	1.00	17.77	6.543	3
	2.00	29.68		
	3.00	30.58		
	4.00	33.54		

^{***}significant at p < 0.001

Deontology accuracy. In the scenarios, the sales person lied to customers to justify a price increase as well as to pressure them into buying. The statements dealing with the deontology component were designed to be inconsistent with the overall unethical theme of the deontology component which was unethical but consistent with the misleading statements. Statement 4, for example, suggests that the subordinate persuaded

^{**}significant at p < 0.01

I Calculated by summing responses to the first four statements in the recognition test.

² Calculated by summing the responses to the fifth and sixth statements in the recognition test.

³ Calculated by summing the responses to the seventh and eighth statements in the recognition test.

⁴ Calculated by summing responses five through eight in the recognition test.

⁵ Calculated by summing responses one through eight in the recognition test.

management to pass on only part of the cost increase to the customers. Although this is what the subordinate told customers, it was clear to the reader that this was a lie (deontologically unethical).

Table 4.13

Means and Standard Deviations for the Dependent Measures of Sales and Marketing

Managers' Accuracy in Identifying Fictitious Target Items Grouped by Scenario (N = 56)

Dependent Variable	Scenario	Mean	Std. Error
Deontology accuracy ¹	1.00	17.636	.784
-	2.00	17.789	.596
	3.00	16.667	.750
	4.00	16.286	.695
Egoist accuracy ²	1.00	6.000	.510
	2.00	7.474	.388
	3.00	9.333	.488
	4.00	9.429	.452
Utilitarian accuracy ³	1.00	6.364	.563
	2.00	9.053	.429
	3.00	8.667	.539
	4.00	9.571	.499
Teleology accuracy ⁴	1.00	12.364	.956
	2.00	16.526	.728
	3.00	18.000	.916
	4.00	19.000	.848
Total accuracy ⁵	1.00	30.000	1.430
	2.00	34.316	1.088
	3.00	34.667	1.369
	4.00	35.286	1.268_

¹ Calculated by summing responses to the first four statements in the recognition test.

² Calculated by summing the responses to the fifth and sixth statements in the recognition test.

³ Calculated by summing the responses to the seventh and eighth statements in the recognition test.

⁴ Calculated by summing responses five through eight in the recognition test.

⁵ Calculated by summing responses one through eight in the recognition test.

In scenarios where the egoist and utilitarian components were positive, it was believed that subjects enacting an agentic role would use a schema-based processing strategy and focus on thematically consistent information cues. Thus, they would be more likely to indicate that the deontology related target items were true. Table 4.12 and Table 4.13 show that sales and marketing managers did not differ significantly in their accuracy in identifying fictitious target items related to deontology. This may be because of the inconsistency of the statements and an actual deontologically unethical act described in all four scenarios. This inconsistency, in turn, may have led to increased accessibility to scenario content which would have resulted in more accurate responses. Unfortunately, none of the deontology related statements were consistent with the theme of the deontology content. Consequently, it was not possible to determine with much certainty if a schema-based or a detailed information processing strategy was being used.

Egoist accuracy. As shown in Table 4.12 and Table 4.13, sales and marketing managers' accuracy in identifying the fictitious egoist-related statements was significantly lower than when the target items were inconsistent with the theme of the egoist component. This suggests that subjects had greater accessibility to encoded information when the statements were inconsistent or incongruent with the theme of the scenario. When the statements were thematically consistent, it appears that sales and marketing managers were less likely to access previously encoded information. The difference in accuracy, across the scenarios, does suggest that subjects did encode the information. Thus, differences in egoist accuracy were most likely due to differences in accessibility not availability.

Utilitarian accuracy. Table 4.12 and Table 4.13 also show that sales and marketing managers' accuracy in identifying utilitarian related target items was also highly significant across the four scenarios. The greatest difference, however, was between scenario one and the other three scenarios. When scenario one was removed from the analysis, the rank differences in the scenarios two, three, and four were not significant ($\chi^2 = 2.554$, p < .279). Thus, the only time that sales and marketing managers differed significantly in their accuracy in identifying utilitarian related target items was when the egoist and utilitarian components were positive. Even when the fictitious utilitarian related target statements were consistent with the utilitarian content of scenario three, sales and marketing managers' accuracy was not lower than in the much more incongruent case of scenario four, when all statements were inconsistent.

Overall, little support was found for the contention that sales and marketing managers' accuracy in identifying fictitious target items was tied solely to whether or not the statements were consistent with the theme of the egoist content in the scenarios. It appears that inconsistency between the statement and the theme of the egoist content or the utilitarian content was enough to stimulate increased accessibility of message content and in turn, increased accuracy.

It was thought that maybe the finding of inconsistency early on in the statement recognition task would have increased subjects accessibility of message content. It was found through the use of the Jonckheere-Terpstra test, however, that sales and marketing managers were more accurate in identifying egoist related target items when the utilitarian statements were inconsistent with the utilitarian theme of scenario two, even

though they came after the egoist related statements (J-T = 1.791, p < .073). This may suggest a connection between the judgment and intention tasks and the recognition task. There did not appear to be any relationship between sales and marketing managers' accuracy in identifying deontology related fictitious items and their judgments and intentions.

Communal Work Roles and Scenario Content Accuracy

The second hypothesis developed to test proposition 4.1 focused on the relationship between managers' that enact communal roles and their accuracy in identifying fictitious target items.

H4.1.2:The accuracy of subjects enacting communal work roles in identifying fictitious target items will not be significantly affected by the consistency of the statement with the utilitarian theme of the scenario.

Deontology accuracy. As in the analysis of sales and marketing managers, accounting and human resource managers' accuracy in identifying fictitious deontology related target items did not differ across the four scenarios. The results of this analysis are summarized in Tables 4.14 and Table 4.15. This suggests that subjects' accessibility to message content was similar regardless of the teleology content. Once again, this may have occurred because of the lack of statements in the deontology accuracy measure that were consistent with the theme of the deontology content. Thus, all deontology related statements in the recognition task may have been inconsistent enough to prompt subjects to access details of the previously encoded message content. It can be concluded,

however, that the presence of positive egoist and utilitarian consequences was not enough to suppress or alter accounting and human resource managers' encoding of scenario content related to the deontology evaluation.

Table 4.14

Krushkal-Wallis Test Results for Differences in Accounting and Human Resource

Managers' Accuracy in Identifying Fictitious Target Items Grouped by Scenario (N = 87)

Dependent Variable	Scenario	Rank	Chi Square	df
Deontology accuracy	1.00	47.83	1.520	3
	2.00	45.17		
	3.00	43.70		
	4.00	38.81		
Egoist accuracy ²	1.00	34.83	16.287***	3
	2.00	35.02		
	3.00	48.53		
	4.00	59.57		
Utilitarian accuracy ³	1.00	30.61	19.312***	3
	2.00	53.30		
	3.00	35.15		
	4.00	56.90		
Teleology accuracy ⁴	1.00	29.78	19.312***	3
	2.00	43.70		
	3.00	41.42		
	4.00	62.36		
Total accuracy ⁵	1.00	38.70	3.950	3
	2.00	44.70		
	3.00	40.30		
	4.00	52.57		

^{***}significant at p < 0.001

^{**}significant at p < 0.01

I Calculated by summing responses to the first four statements in the recognition test.

² Calculated by summing the responses to the fifth and sixth statements in the recognition test.

³ Calculated by summing the responses to the seventh and eighth statements in the recognition test.

⁴ Calculated by summing responses five through eight in the recognition test.

⁵ Calculated by summing responses one through eight in the recognition test.

Table 4.15

Means and Standard Deviations for the Dependent Measures of Accounting and Human Resource Managers' Accuracy in Identifying Fictitious Target Items Grouped by Scenario (N = 87)

Dependent Variable	Scenario	Mean	Std. Error
Deontology accuracy ¹	1.00	15.391	.905
	2.00	15.130	.905
	3.00	14.700	.971
	4.00	13.810	.947
Egoist accuracy ²	1.00	6.870	.408
	2.00	6.870	.408
	3.00	8.100	.438
	4.00	9.048	.427
Utilitarian accuracy ³	1.00	6.609	.445
	2.00	8.783	.445
	3.00	7.000	.477
	4.00	9.048	.466
Teleology accuracy ⁴	1.00	13.478	.712
	2.00	15.652	.712
	3.00	15.100	.763
	4.00	18.095	.745
Total accuracy ⁵	1.00	28.870	1.160
	2.00	30.783	1.160
	3.00	29.800	1.244
	4.00	31.905	1.214

¹ Calculated by summing responses to the first four statements in the recognition test.

Egoist accuracy. Table 4.14 and Table 4.15 show that accounting and human resources managers' accuracy in identifying fictitious egoist-related items is much lower for scenarios one and two than for scenarios three and four. Thus, when the egoist-related target items were consistent with the egoist component, accounting and human resource managers had difficulty identifying them as fictitious items. When the egoist-related

² Calculated by summing the responses to the fifth and sixth statements in the recognition test.

³ Calculated by summing the responses to the seventh and eighth statements in the recognition test.

⁴ Calculated by summing responses five through eight in the recognition test.

⁵ Calculated by summing responses one through eight in the recognition test.

target items were inconsistent with the egoist component (when the egoist component was negative), they were significantly more accurate in identifying the target items as fictitious.

Furthermore, unlike sales and marketing managers, accounting and human resource managers were no more accurate in identifying fictitious egoist-related target items for scenario two, when the utilitarian component was negative, than they were for scenario one, when the utilitarian component was positive (J-T = 43.320, p < .892). The results of the analysis of accounting and human resource managers' accuracy in identifying fictitious egoist-related target items provide strong support for the conclusion that subjects' choice of information processing strategy depended highly on the level of consistency of the statement with the theme of the scenario content. This was evidenced by the fact that subjects accuracy was much higher for scenarios three and four, when the target items were inconsistent, than for scenario one and two, when the target items were consistent.

Thus, the differences in accuracy across the scenarios were most likely the result of accessibility differences rather than availability differences. If accuracy differences were due to availability differences, then subjects would not have encoded the information properly and even though subjects may have differed across scenarios, accuracy would not have been high even when the target statements were inconsistent.

Utilitarian accuracy. Accounting and human resource managers also had difficulty identifying fictitious utilitarian related target items when they were consistent with the positive utilitarian component. Table 4.14 and Table 4.15 show that when the

utilitarian component was negative, as in scenarios two and four, accountants and human resource managers were much more accurate in identifying the same fictitious utilitarian related target items. Also, accounting and human resource managers' accuracy in identifying fictitious teleology related target items seemed to be tied to the presence of inconsistency with a specific component of teleology. That is, subjects' accessibility of message content appeared to be limited to the teleology component for which the inconsistency was found. Thus, when inconsistency was encountered between the egoist related statements and the theme of the egoist component scenario, accountants and human resource managers were quite accurate in their identification of these fictitious items. This heightened degree of accessibility did not lead to a similarly high degree of recognition of fictitious utilitarian related target items that were consistent with the theme of the utilitarian content in the same scenario.

Overall, Table 4.14 and Table 4.15 show that accountants and human resource managers were relatively accurate in recognizing deontology related target items as fictitious, with respect to teleology related items. This was true even though they appeared to differ in their accuracy in identifying fictitious egoist and utilitarian related target items across scenarios. As in the case of the analysis of subjects enacting an agentic work role, it is not possible to conclude that accounting and human resource managers' accuracy in identifying fictitious deontology related target items were because of their use of a detailed information processing strategy since none of the deontology related statements were consistent with the deontology component.

The results of the analysis of the accuracy of subjects enacting communal work roles would suggest that hypothesis 4.1.2, accounting and human resource managers' accuracy would not differ by scenario, should be rejected. Accounting and human resource managers' accuracy in identifying fictitious target items was in large part dependent on whether or not the target item was consistent with the scenario component. This was true for both fictitious egoist and utilitarian components and it could not be ruled out for the fictitious deontology component.

Accuracy and Subjects Judgments and Intentions

Overall, it would appear that accounting and human resource managers employed information processing strategies that had been previously associated with agentic roles more so than sales and marketing managers. Subjects enacting communal work roles exhibited patterns of accuracy that were more characteristic of schema-based processing, when the level of inconsistency was low, than subjects enacting agentic work roles. Sales and marketing managers also exhibited characteristics of schema-based processing but this type of processing appeared to be limited to cases where the fictitious teleology related target statements were consistent with the themes of both teleology components (scenario one) or when the fictitious egoist target statements were consistent with the theme of the egoist component (scenarios one and two).

The finding that subjects enacting communal work roles appeared to be processing information in a way that is more commonly associated with agentic social

roles is confusing since the agentic/communal role differences in information processing are suggested to be a causal factor when explaining sex differences in judgment (Meyers-Levy, 1989b; Meyers-Levy & Sternthal, 1991). In an effort to explain this apparent discrepancy with the literature, correlation analysis was performed to determine the extent of the relationships between subjects' judgments and intentions and the measures of their accuracy in identifying fictitious target items. The Spearman Rho correlations for sales and marketing managers and accounting and human resource managers are shown in Table 4.16 and Table 4.17, respectively.

Table 4.16

Spearman Rho Intercorrelations Between Sales and Marketing Managers' Ethical Judgments and Intentions and Their Accuracy in Distinguishing Between Real and Fictitious Target Items

Error	l	2	3	4	5
All Managers (N = 56)					
1. Ethical Judgment		.561**	160	314*	120
2. Intention		***	102	571**	313*
3. Deontology accuracy ¹			****	.110	.263*
4. Egoist accuracy ²				***	.602**
5. Utilitarian accuracy ³					

^{**}correlations are significant at 0.01

^{*}correlations are significant at 0.05

I Calculated by summing responses to the first four statements in the recognition test.

² Calculated by summing the responses to the fifth and sixth statements in the recognition test.

³ Calculated by summing the responses to the seventh and eighth statements in the recognition test.

Table 4.17

Spearman Rho Intercorrelations Between Accounting and Human Resource Managers' Ethical Judgments and Intentions and Their Accuracy in Distinguishing Between Real and Fictitious Target Items

Error	1	2	3	4	5
All Managers (N = 88)					
1. Ethical Judgment		.589**	056	050	081
2. Intention			048	138	213*
3. Deontology accuracy ¹				012	019
4. Egoist accuracy ²					.389**
5. Utilitarian accuracy ³					

^{**}correlations are significant at 0.01

The separate measures of accuracy are negatively correlated with ethical judgment for both sales and marketing managers and accounting and human resource managers, suggesting that as accuracy decreases subjects' ethical judgments and intentions increase. However, only the egoist accuracy-ethical judgment relationship for sales and marketing managers is significant. This suggests that subjects' accuracy in identifying fictitious target items related to the scenarios may not have been a good measure of the actual information processing strategy used during the formation of responses to the ethical judgment task.

As in the case of the relationships between subjects' accuracy and their ethical judgments, Table 4.17 shows that the relationships between accounting and human

^{*}correlations are significant at 0.05

¹ Calculated by summing responses to the first four statements in the recognition test.

² Calculated by summing the responses to the fifth and sixth statements in the recognition test.

³ Calculated by summing the responses to the seventh and eighth statements in the recognition test.

resource managers' accuracy and their intentions to punish or reward subordinates were also weak. The only accuracy measure significantly related to their intentions was utilitarian error (p < .046). Although accounting and human resource managers' accuracy in identifying fictitious egoist related target items were found to vary significantly, depending on its consistency with the theme of the egoist content in the scenario, the egoist accuracy variable did not even approach significance with respect to its correlation with the intention variable (p < .198).

In contrast to subjects enacting communal work roles, Table 4.16 shows that the ethical judgments of sales and marketing managers were significantly correlated with their accuracy in identifying fictitious egoist related target items. Furthermore, the intentions of subjects enacting agentic work roles were significantly correlated with the egoist accuracy variable and the utilitarian accuracy variable. The correlation between the egoist accuracy and intentions was much more significant, however, than the correlation between subjects' utilitarian accuracy and their intentions (p < .000 and p < .019, respectively).

Even though accounting and human resource managers appeared to be more selective in their information processing, a characteristic more commonly associated with agentic social roles than communal roles (Meyers-Levy, 1994), the lack of correlation between the accuracy measures and subjects' earlier judgments and intentions would suggest that their choice of information processing strategy may have been task specific. That is, accounting and human resource managers may have deemed the task demands

associated with identifying fictitious target items to be less than the demands associated with completing the ethical judgment and intention measures. Consequently, a more schema-based strategy would be deemed appropriate because of the lower level of processing involved.

If accounting and human resource managers had indeed been more passing in their judgments and intentions, as they were in their recognition task, then one would expect them to be much less severe in their judgments given the positive outcomes of some of the scenarios. Accounting and human resource managers' ethical judgments of, and intentions to punish, the subordinate were much more severe, however, than that of sales and marketing managers (ethical judgment, $F_{1,136} = 11.911$, p < .001; intention, $F_{1,136} = 18.713$, p < .000). This finding, in combination with the results of the correlation analysis, would suggest support for the contention that accounting and human resource managers' approach to the recognition task differed from their approach to the judgment and intention tasks. The results of the correlation analysis also suggest, however, that the processing strategies employed by sales and marketing managers for the two tasks were similar.

Unfortunately, the researcher's ability to provide a more detailed explanation as to the reasons for these differences was limited by the design of the recognition task. This subject will be discussed in more detail in the following Chapter V in the sections on limitations of the research and areas for future research.

Summary of Findings for Objective Four

To summarize this section, the accuracy of subjects enacting agentic work roles was thought to differ by scenario because of their tendency to use a schema-based information processing strategy. The accuracy of subjects enacting communal work roles was not expected to differ by scenario because they were expected to employ a more detailed information processing strategy. The results of the analysis for the two groups are summarized descriptively in Table 4.18.

Table 4.18

Summary of Subjects' Accuracy in Identifying Fictitious Scenario Items

Work Role	Deontology Related	Egoist Related	Utilitarian Related
Agentic	no difference	least accurate when consistent/most accurate when inconsistent	lower for scenario one only
Communal	no difference	least accurate when consistent/most accurate when inconsistent	least accurate when consistent/most accurate when inconsistent

Contrary to theory, subjects enacting communal work roles appeared to be more selective in their processing of information, switching back and forth between schema-based information processing and detail-based processing. Although sales and marketing managers also appeared to switch from schema-based to detailed processing, accounting and human resource managers' choice of processing strategy appeared to be affected by inconsistency in the target items when they were egoist related and when they were

utilitarian related. Sales and marketing managers processing of information appeared to become more detailed when either of the two teleology related accuracy measures were inconsistent with the themes of the associated teleology components in the scenarios.

Unlike sales and marketing managers, accounting and human resource managers' accuracy in identifying fictitious target items related to the scenarios was very weekly correlated with their ethical judgments and intentions. Whereas both the egoist and utilitarian error variables were significantly correlated with the intentions of subjects enacting agentic work roles, only the utilitarian error variable was significantly correlated with the intentions of subjects enacting communal work roles. Furthermore, none of the accuracy measures were significantly correlated with accounting and human resource managers' ethical judgments while the intentions of sales and marketing managers were found to be significantly correlated (p < .018) with the egoist error variable. This may suggest that the recognition task may not have been a good measure of the type of information processing strategy that subjects, and especially accounting and human resource managers, used to complete the ethical judgment and intention tasks.

Summary of Results for Tests of the Hypotheses

The hypotheses tested in this chapter were developed based on the two primary objectives of the study and the two supporting objectives. The results of the hypotheses tests are summarized in Table 4.19. The first two objectives dealt with the effects of role primes on the presence of sex differences in ethical judgments and intentions. Strong support was found for all eight hypotheses associated with these two objectives.

Table 4.19
Summary of the Results of Tests of the Hypotheses

Hypotheses	Results
H1.1.1:The interaction effect of sex by scenario by presence of gender-role prime on ethical judgment is significant.	Supported (p < .001)
H1.1.2:The interaction effect of sex by scenario by presence of gender-role prime on intention to reward or punish is significant.	Supported (p < .001)
H2.1.1:Sex differences in ethical judgments are not significant for subjects enacting communal work roles.	Supported (F < 1)
H2.1.2:Sex differences in intentions to punish or reward unethical behavior are not significant for subjects enacting communal work roles.	Supported (F < 1)
H2.1.3:Sex differences in ethical judgments are not significant for subjects enacting agentic work roles.	Supported (F < 1)
H2.1.4:Sex differences in intentions to punish or reward unethical behavior are not significant for subjects enacting agentic work roles.	Supported (F < 1)
H2.2.1:Significant differences in ethical judgments exist between subjects that enact agentic versus communal work roles.	Supported (p < .001)
H2.2.2:Significant differences in intentions to punish or reward unethical behavior exist between subjects that enact agentic versus communal work roles.	Supported (p < .001)

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H3.1.1:Utilitarian message cues have a significant affect on the ethical judgments of subjects enacting communal work roles.	Not supported
H3.1.2:Utilitarian message cues have a significant affect on the intentions of subjects enacting communal work roles.	Supported (p < .028, partial $R^2 = .09$)
H3.2.1:Egoist message cues have a significant affect on the ethical judgments of subjects enacting agentic work roles.	Not supported
H3.2.2:Egoist message cues have a significant affect on the intentions of subjects enacting agentic work roles.	Supported (p < .011, partial $R^2 = .19$)
H4.1.1:Subjects that enact agentic roles will be less accurate in their identification of fictitious items that are consistent with the theme of the egoist message cues than fictitious items that are inconsistent with the theme of the egoist message cues.	Partially supported
H4.1.2:The accuracy of subjects enacting communal work roles in identifying fictitious target items will not be significantly affected by the consistency of the statement with the utilitarian theme of the scenario.	Not supported

The focus of objective four was on the separate effects of egoist and utilitarian message cues on the ethical judgments and intentions of subjects in agentic work roles versus communal work roles. Of the four hypotheses associated with objective four, two received strong support. More specifically, the hypotheses associated with the effects of the teleology variables were supported for intentions but not for ethical judgments. It was suggested, however, that the tests of the hypotheses that dealt with the effects of the teleology variables on ethical judgment were underpowered. Thus, the use of a larger sample may have led to the finding of support for these hypotheses.

The final objective in the study explored the relationship between subjects' roles and their use of information processing strategies. Of the two hypotheses associated with

this objective, only one was partially supported. It was suggested, however, that the lack of support for these hypotheses may have been due to problems with the design of the test.

Chapter Summary

The purpose of this chapter was to present and discuss the results of the empirical analysis of the hypotheses associated with the two main objectives of the study, objectives one and two, and the two supporting objectives, objectives three and four. Strong support was found for the proposition that sex differences in ethical judgments and intentions are due, at least in part, to the social roles that subjects enact while rendering their responses to the measures. It was also found that only the utilitarian component of the teleology variable was a significant predictor of accounting and human resource managers' intentions whereas the egoist component was the only teleology related variable that was a significant predictor of sales and marketing managers' intentions. None of the independent variables were found to be significant predictors of the subjects' ethical judgments, regardless of the work role they enacted.

Finally, the analysis of subjects' use of information processing strategies suggested that sales and marketing managers and accounting and human resource managers were selective in their processing of information related to the recognition task. The accuracy of subjects enacting agentic work roles was more strongly correlated to their judgments and intention, however, than it was for subjects enacting communal work roles. The final chapter in the study will discuss possible conclusion that can be drawn from the findings, as well as the limitations of the study and areas for future research.

CHAPTER V

CONCLUSIONS, LIMITATIONS, AND SUGGESTIONS FOR FUTURE RESEARCH

Summary and Conclusions

The two underlying concerns that have been present throughout this research are:

(1) how a subject's sex affect their ethical orientation, and (2) the underlying mechanisms that lead to the presence or absence of sex differences in ethical orientations. The focus of the former is on explaining the role of the sex variable in the determination of the presence or absence of differences in ethical orientation. The focus of the latter is on exploring possible explanations of the actual mental processes that lead to differences in ethical orientation.

With respect to the first concern, the main research questions were:

How does a subject's sex affect their ethical orientation? Are sex differences in ethical orientation due to differences in gender roles as suggested by the gender socialization approach? Do employee work roles affect subjects' judgments and intentions in a similar manner to that of gender roles? For example, do marketing managers, regardless of their sex, have different ethical judgments and intentions than accounting or human resource managers when confronted with the same ethical situation?

The main research questions associated with the second concern are: How do agentic or communal social roles affect the impact of egoist (individual) and utilitarian (organizational) consequences on managers' ethical judgments and behavioral intentions? Are sex or work differences in ethical orientation due to differences in the type of information processing strategy associated with the particular social role they are enacting?

Thus, the study consists of four main relationships: (1) the impact of a subject's sex on their intentions to use punishments or rewards to encourage or discourage ethical or unethical behavior, (2) the impact of a subject's work role on their ethical judgments and intentions to use punishments or rewards, (3) the effect of egoist and utilitarian consequences on ethical judgments and intentions when subjects are enacting agentic versus communal roles, and (4) the use of information processing strategies and ethical orientation. Relationships three and four were studied in an attempt to explain the connection between variables identified in relationships one and two.

The results of this research show that the influence of a subject's sex on their ethical orientation is most evident when a gender role prime is present. When a gender role prime was not present, sex differences in ethical judgment and intention to punish or reward subordinate behavior were not significant. Furthermore, when subjects were exposed to a work role prime, those that occupied similar work roles did not differ in their ethical judgments and intentions based on their sex. Subjects that differed in their work roles, however, differed significantly in their ethical orientations. This suggests that a subject's ethical orientation is dependent on the social role they are enacting and

because individuals generally enact multiple social roles, their ethical orientation is not inherent.

The teleology variable in this study was separated into egoist, or individual consequences, and utilitarian, or organizational consequences, so that the separate effects of these components on subjects' ethical judgments and intentions could be studied when they were enacting an agentic versus a communal work role. The results show that neither the teleology variables nor the demographic variables were good predictors of subjects' ethical judgments. The teleology variables, however, were found to be significant predictors of subjects' intentions. More importantly, it was found that the impact of the egoist and utilitarian variables on subjects' intentions depended on the work role they were enacting. The egoist variable, along with the ethical judgment variable, were the main predictors of intentions for subjects enacting agentic work roles. In contrast, the utilitarian variable and the ethical judgment variable were the main predictors of intentions for subjects enacting communal work roles. These findings lend credence to the effort to separate the teleology evaluation in the H-V model of ethics.

The study of the relationship between subjects' accuracy in recognizing fictitious target items related to scenario content and the work roles being enacted showed that subjects from both agentic and communal work roles relied heavily on heuristic and, more specifically, schema-based processing. In contrast to the theory, subjects enacting communal work roles appeared to be more selective in their use of scenario content than subjects enacting agentic work roles. Thus, subjects enacting communal roles were more likely to switch form schema-based processing to detail-based processing when there was

a change in the inconsistency of the target item with the theme of the scenario content.

Unfortunately, the design of the recognition test limited extensive investigation of the reasons for this finding.

This study contributes to the literature in four areas. First, through the use of experimental research it was shown that subjects' ethical orientations, as measured by their ethical judgments and intentions to punish or reward subordinate behavior are not inherent. Subjects do indeed change their ethical orientations depending on the social roles that they enact. This finding in itself explains many of the discrepancies in the literature that show highly significant and highly insignificant sex differences in ethical orientation.

Second, it shows that differences in ethical orientation between marketing and staff positions, such as accounting and human resources, have more to do with the roles associated with those jobs than the sex of the subjects. This essentially switches the focus of ethics research from improving or selecting more moral individuals to improving the socialization process of the occupation.

Third, this study serves as a test of the research on ethical decision making by experimentally testing the Hunt and Vitell (1986) model with the dependent measures of managers' ethical judgments and intentions used by Hunt and Vasquez-Parraga (1993). Additionally, it extends the research on ethical decision making by providing a closer examination of the effects of the teleological evaluations by splitting it into its two bipolar components: the egoist and the utilitarian. The benefit of this addition to the H-V model was evident in the results of the analysis of the effects of the separate teleology

components on subjects ethical judgments and intentions when they were enacting agentic versus communal work roles.

Fourth, it serves as an exploratory piece in the investigation of the relationship between information processing strategies and social roles. Although different information processing strategies have been linked to gender roles in the consumer behavior literature, this study serves as the first attempt at using information processing strategies to explain differences in ethical orientation.

Limitations of the Study and Suggestions for Future Research

The use of managers as subjects in the study may be seen by many as an asset, especially with respect to the generalizability of the findings. The use of managers did, however, cause some concern. Of greatest concern was how would situational factors impacted the effectiveness of the role primes. Did subjects respond similarly to the gender-role prime when they answered the questionnaire at home versus at the office? Did situational variables affect the role enacted by subjects that did not receive a questionnaire containing a role prime? Although the use of an experimental design and the subsequent effects of randomly assigning questionnaires should have eliminated many of these problems, future research needs to incorporate measures of these situational variables so that the roles of subjects can be better controlled.

A second area of concern was the order of the measures of the dependent variables. Although intentions are generally accepted as being predicated by judgment (Azjen, 1988) the measurement of subjects' intentions came before the measurement of

their ethical judgments. The rationale for this was that having the respondents assess the ethicalness of the subordinate's behavior would have biased their subsequent responses to the intention measure. The argument can also be made, however, that the subjects' responses to the ethical judgment measure were biased by their responses to the intention measure. Indeed, exploratory analysis revealed that intentions were found to be the most significant predictor of both accounting and human resource managers' and sales and marketing managers' ethical judgments. Future research needs to investigate the presence and possibly the extent of this bias. Future research is also needed to determine if subjects' intentions are predicated by ethical judgments in all cases. Other hierarchies of decision making, that predict the formation of intentions before judgments, have been suggested by Nord and Peter (1980) and even by Hunt and Vitell (1986) in their suggestion that intentions can be formed based solely on the teleology evaluation.

A final area of concern was caused by the limitations of the recognition test used to assess subjects' use of information processing strategies. Analysis of the results of the test revealed that the dynamics of subjects' use of information processing strategies may be much more complex than the current literature suggests. It appeared that subjects enacting communal work roles were more likely to rely on schema-based information processing strategies than subjects enacting agentic work roles, even though the opposite finding was expected. Furthermore, the choice of information processing strategy seemed to be more dependent on the presence or absence of incongruity for subjects enacting communal work roles than for subjects enacting agentic work roles.

Unfortunately, because of concerns over the effects of an expanded questionnaire on response rates, space limitations did not allow for a more extensive recognition test. This severely affected the researcher's ability to make inferences about subjects' use of information processing strategies when the target items dealt with deontology related versus teleology related scenario content. Consequently, the analysis of the relationship between subjects' use information processing strategies and their enacted social role could not be considered more than exploratory. Clearly this is a promising area of research that requires considerable consideration in the future. Applications of this research may go a long way in explaining ethics based phenomena as well as consumer based phenomena.

Three other promising areas for future research, that did not grow out of limitation of the current study, were: (1) the overriding effects of a work role over a gender role or other social roles, (2) the gender and work role differences in international business, and (3) methods of managing work role socialization process so that ethical behavior is encouraged. The ability of one social role to override another social role would be a logical extension of the current study. What happens, for example, if an employee is exposed to a gender-role prime at work? Does this cause the individual to revert to a gender appropriate role or is the work role strong enough to remain stable at least while the employee is at work? The results of this type of research may be useful in explaining a wide range of workplace issues from sexual misconduct to conflict management, especially if males tend to enact their self-oriented agentic gender roles when subjected to gender role primes even when they are carrying out their jobs.

The pretest finding that a subject's nationality and the place in which they were raised had an impact on ethical orientation provides another area for future research. The continued globalization of world markets and organizations will no doubt lead to work places occupied by employees from radically different cultures. Understanding how one's prior socialization process affects their enculturation process at work would be useful for avoiding situations of ethical inconsistencies across corporate divisions located in foreign settings.

Finally, authors such as Garbarino and Johnson (1999) and Morgan and Hunt (1994) have theorized and tested the impact of trust on relationships. Swan, Bowers, and Richardson (1999), in a meta-analysis found that trust has a moderate but beneficial influence on the development of positive customer attitudes, intentions and behavior. Furthermore, Macchiette and Roy (1994) found that ethical behavior was important for relationship marketing. If ethical behavior begets trust, and trust is important for developing strong relationships between sellers and customers, then it would be beneficial for future research to examine the antecedents of ethical behavior. Past research, as described in Chapter II of this study, has focused on the antecedents of ethical behavior but this focus has generally been restricted to individual characteristics. The finding of evidence that individuals are not inherently ethical or unethical suggests that it would be beneficial to switch the focus of this search from looking for groups of individuals that are more inherently ethical employees to finding ways to develop more ethical work roles.

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Appendix A

Definition of Terms

Definition of Terms

Agency represents self-protection, self-expansion, and self-assertion (Bakan, 1966).

Communion represents affiliation, contact, openness, and union (Bakan, 1966).

Deontological theories of ethics hold that some things ought to be done or ought not to be done, without reference to the results to be expected from doing or omitting to do them" (Scarre, 1996, p. 12).

Detail-based strategy for processing information entails an effortful, comprehensive, piecemeal analysis of all available information (Meyers-Levy, 1989a).

Egoism is a non-utilitarian form of consequentialism which evaluates outcomes according to their propensity to enhance the agent's own welfare (Scarre, 1996).

Ethical orientation refers to the tendency of an individual's ethical decision making process to include a particular set of consequences and outcomes.

Ethical outcomes are the result of an individual's decision about an ethical dilemma. They are usually in the form of an ethical judgment and/or a behavioral intention.

Gender refers to "the meanings that societies and individuals ascribe to female and male categories" (Eagly, 1987, p. 6).

Gender roles refer to "those shared expectations that apply to individuals on the basis of their socially identified gender" (Eagly, 1987, p. 12).

Heuristic-based strategy for processing information uses rules of thumb as proxies for a more comprehensive processing of information (Meyers-Levy, 1989a).

Role primes are statements that stimulate subjects to think about how they enact the specified role in natural settings. Once the role being primed for is enacted, decisions about experimental stimuli will be made from that perspective (Whittler, 1994).

Sex refers to the grouping of humans based on biological differences into two categories: females and males (Eagly, 1987).

Social roles are those shared expectations about appropriate qualities or behaviors associated with the enactment of an individual's role in society.

Teleological theories of ethics focus on the amount of good or bad embodied in the consequences of the behavior when they make an ethical judgment (Hunt and Vitell, 1986).

Utilitarian theories of ethics are that an act is ethical when it promotes the best interest of everyone involved in the action (Almonde, 1998).

Appendix B

Study Coding Procedures

The research design of each study in the sample was determined based on the guidelines specified in Campbell and Stanley (1963) and Halpern (1992). The main factor used to separate experimental or quasi-experimental studies from exploratory or pre-experimental studies is the presence of experimental manipulations and the use of control groups(s). The pre-experimental research designs are considered to be the weakest of all research designs because they are subject to the most sources of invalidity (Campbell & Stanley, 1963).

True experiments are very uncommon in the area of sex differences. The primary reason for this is that the major variable of interest, sex, cannot be randomly assigned to the subject (Halpern, 1992). Additionally, a number of variables, such as hormone concentrations, learning experiences, and status are known to interact with the sex variable. Causal attributions for any between-sex differences, therefore, are difficult to show with certainty. As a result of this lack of certainty, all sex differences research is said to be basically correlational in nature (Halpern, 1992). This does not mean, however, that rigorous research designs cannot be used in the study of sex differences. Quasi-experiments, like true experiments, involve some type of experimental manipulation using control groups and, with the exception of sex, they can assign other treatments randomly to subjects.

In this study, quasi-experimental studies were separated into two categories: (a) those that took place in a laboratory setting, and (b) those that involved the distribution of questionnaires. Although sex differences studies performed in laboratory settings provide greater control of environmental factors and are considered to be more rigorous, they are

still not truly experimental (Halpern, 1992). This distinction was included to differentiate between quasi-experimental studies that used observational versus self-reporting data collection methods.

A study was determined to have found sex differences in ethical orientations if any significant differences were found in the measurement of their responses. Thus, a study was considered positive with respect to sex differences even if the sex differences were found in the responses to a small percentage of the survey questions or scenarios. Tsalikis & Ortiz-Buonafina's (1990) finding of significant gender differences in responses to only one of four scenarios is one example of the application of this coding rule.

The type of sample used in each study was coded as either student or management. Some studies, however, used both types of samples and consequently, these studies were counted twice, once for total number of student-based samples and once for total number of management-based samples.

The dependent variable for each study was categorized based on if it measured ethical judgment, intention, or behavior. Ethical judgment may have included terms such as attitude, perception, feeling, or belief. The study was considered to have measured intention if it looked at a subject's probability of performing a certain behavior. An example of an ethical judgment measure is "I think/feel/believe the behavior in question was unethical." In contrast, an intention measure would read "I would do the following if this behavior occurred." Finally, studies that measured behavior were actually recording how a subject physically responded to a treatment situation. It should be noted that some

studies measured ethical judgment and intention and were therefore counted more than once.

The final variable recorded in the overview of the literature findings was the origin of the primary survey instrument. Ford and Richardson (1994), Hunt and Vitell (1986), and Reidenbach and Robin (1988, 1990) point out that the use of unestablished measures is one of the common weaknesses in the ethics literature. Studies that specifically state that they developed their own research instruments were labeled as having internally developed instruments. A study was also considered to have an internally developed instrument if it did not contain a section on, or reference to, how the instrument was developed. Studies took part of the instrument from past research, even if the contribution was minimal, were labeled externally developed instruments.

Appendix C

Role Primes

Gender-Role Prime

Please indicate your level of agreement or disagreement with the following statements on the scale provided. Circle the number that best reflects your answer.

Strongly Agree 1	Agree 2	Slightly Agree 3	Neither Agree nor Disagree 4	Slightly Disagree 5		I	Disag 6	gree		Strongly Disagree 7
l. I am syn	npathetic to the	needs of others.		1	2	3	4	5	6	7
2. I share v	vith others.			1	2	3		5		7
3. I need th	ne affection of	other people.		I	2	3	4	5	6	7
4. I am cha	ritable.			1	2	3	4	5	6	7
5. I take ch	arge of situation	ns.		1	2	3	4	5	6	7
6. I openly	express my aff	fection for others.		1	2	3	4	5	6	7
7. I succeed	d because of m	y skills rather than	n hard work or luck.	i	2	3	4	5	6	7
8. I feel a	need to compet	e against others.		1	2	3	4	5	6	7

Work-Role Prime

Please indicate your level of agreement or disagreement with the following statements on the scale provided. Circle the number that best reflects your answer.

Strongly Agree 1	Agree 2	Slightly Agree 3	Neither Agree nor Disagree 4	Slightly Disagree 5		I	Disag 6	ŗee		Strongly Disagree 7
1. While at	work, I am syı	mpathetic to the n	eeds of others.	1	2	3	4	5	6	7
2. While at	work, I share	with others.		I	2	3	4	5	6	7
3. While at	work, I need t	he affection of otl	her people.	I	2	3	4	5	6	7
4. While at	work, I am ch	aritable.	-	ι	2	3	4	5	6	7
5. While at	work, I take cl	harge of situations	s.	1	2	3	4	5	6	7
6. While at	work, I openly	express my affect	ction for others.	1	2	3	4	5	6	7
7. While at	work, I succee	ed because of my								
	her than hard v	•		1	2	3	4	5	6	7
8. While at	work, I feel a	need to compete a	against others.	1	2	3	4	5	6	7

Appendix D

Information Processing Test

<u>DO NOT</u> look back at the case you read in Section B once you have started this section. Please indicate if the following statements refer to actual events explicitly described in the case that you have just read in Section B. If you are confident in your answer, circle Yes or No. Circle Unsure if you are uncertain about the answer.

1. Gene's actions led to price increases.	Yes	No_	Unsure	
2. Gene's behavior strengthened the			_	
company's relationships with its customers.	Yes	No	Unsure	
3. Demand for the product was increasing.	Yes	No	Unsure _	
4. The future of your company was strengthened.	Yes	No_	Unsure	
5. Profits increased.	Yes	No	Unsure	
6. Companies had the perception that				
Gene was responsible for keeping price increases low.	Yes	No	Unsure	
7. Production costs increased.	Yes	No_	Unsure	
8. Companies expressed their support for Gene.	Yes	No	Unsure	

Appendix E

Pretest One

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Pretest one served as a manipulation check for the variations in the egoist, utilitarian, and deontological conditions of the scenarios developed from Vasquez-Parraga (1990) and as a test of the ethical judgment and behavioral intention dependent variable measures. The first base scenario dealt with the overstating of plant capacity while the second scenario focused on over-recommending products. Eight versions of each scenario were written by creating different combinations of the ethical components. Although only those versions containing opposite egoist and utilitarian conditions would be used in subsequent research, the additional versions were deemed necessary to determine if the manipulations of the teleological conditions were working as expected.

The two dependent variables were "Intention to Punish or Reward" and "Ethical Judgment." Intention to punish or reward was measured on a 21-point metric scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10), as suggested by Hunt and Vasquez-Parraga (1993). A 7-point Likert scale, anchored by "Very Ethical" (7) and "Unethical" (1) was used to measure respondents' ethical.

The scenario versions were labeled as cases 1-8 for scenario one and cases 9-16 for scenario two. The two dependent variable measures followed each case on a one page questionnaire. Respondents were also asked to record their sex, age, and class rank.

Procedure

The sixteen versions of the questionnaire were randomly distributed to 184 business students at the University of Texas-Pan American. The respective professors for each class were responsible for distributing the questionnaires. The researcher was not

directly involved in gathering data as there was a chance that the introduction of an unfamiliar person may have had an effect on the role played by the study subjects.

Professors were instructed not to give their input on the questionnaire even if it was requested by the students. This did not lead to many problems since great care was taken to ensure that questionnaire instructions were easy to follow.

Questionnaires

The sixteen questionnaire versions, based on scenarios one and two, are presented below. For clarity, each version has been separated into its deontological, egoist, and utilitarian components. A negative sign before the abbreviation deon., denotes a deontologically unethical condition whereas a positive sign suggests a deontologically ethical condition. A positive sign before the egoist or utilitarian suggest a positive consequence, whereas a negative sign suggests a negative consequence.

Case 1 (Deon. -, Egoist +, Utilitarian +). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Recently, in an attempt to negotiate the best price, Gene has been telling purchasing agents that the utilization of plant capacity is at a very high level because of the popularity of the company's product. Gene does this even when utilization of plant capacity is low. Purchasing agents are generally unaware of Gene's overstatements. Indeed, the tactic has resulted in higher average prices and increased total dollar sales for Gene. The increased in prices and sales achieved by Gene have generated enough new resources to allow for the hiring of two new salespeople that are considered essential for the survival of their company which employs more than 30 people.

Case 2 (Deon. -, Egoist +, Utilitarian -). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Recently, in an attempt to negotiate the best price, Gene has been telling purchasing agents that the utilization of plant capacity is at a very high level because of the popularity of the company's product. Gene does this even when utilization of plant capacity is low. Purchasing agents are generally unaware of Gene's overstatements. Indeed, the tactic has resulted in higher average prices and increased total dollar sales for Gene. You have also heard rumors that the increases in prices achieved by Gene have put some of your customers in

financial trouble. Although these customers do not purchase a high volume of goods, they have been buying from your company for a long time. If the behavior continues, there is a strong possibility that some of these loyal customers will go out of business which may threaten the company's long-term survival.

Case 3 (Deon. -, Egoist-, Utilitarian +). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Recently, in an attempt to negotiate the best price, Gene has been telling purchasing agents that the utilization of plant capacity is at a very high level because of the popularity of the company's product. Gene does this even when utilization of plant capacity is low. However, during a recent sales call. Gene lost all credibility with a major prospect because the prospect knew through a personal friend that the plant was operating significantly below capacity. The prospect figured that if Gene was willing to mislead a customer with inflated accounts of plant usage, he might also be less than honest with regard to other, more important issues. From that point, Gene had trouble just getting in to see this prospect. When other company salespeople heard of the prospect's reaction to Gene's behavior, they decided as a group to implement a system for monitoring sales practices so that the trusting relationships they had developed with their clientele could be preserved. Although the salespeople were skeptical of using such a system in the past, they did not want one person's actions to ruin their good names. In turn, the new sales monitoring system led to a greater level of trust on the part of the company's existing customers and helped ensure that problems associated with misleading sales practices were kept to a minimum.

Case 4 (Deon. -, Egoist -, Utilitarian -). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Recently, in an attempt to negotiate the best price, Gene has been telling purchasing agents that the utilization of plant capacity is at a very high level because of the popularity of the company's product. Gene does this even when utilization of plant capacity is low. However, during a recent sales call, Gene lost all credibility with a major prospect because the prospect knew through a personal friend that the plant was operating significantly below capacity. The prospect figured that if Gene was willing to mislead a customer with inflated accounts of plant usage, he might also be less than honest with regard to other, more important issues. From that point, Gene had trouble just getting in to see this prospect. You have also heard rumors that the increases in prices achieved by Gene have put some of your customers in financial trouble. Although these customers do not purchase a high volume of goods, they have been buying from your company for a long time. If the behavior continues, there is a strong possibility that some of these loyal customers will go out of business which may threaten the company's long-term survival.

Case 5 (Deon. +, Egoist +, Utilitarian +). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Salespeople at Ajax manufacturing sometimes overstate their present plant capacity utilization, believing this will help them negotiate the best price with customers. Gene thinks that overstating plant utilization is an improper sales tactic and expressed this opinion in a recent sales meeting. Gene discussed the case of a colleague in another company who had been overstating

capacity utilization until he lost credibility with many of his customers as they discovered he was misleading them. Gene obtained some support in the meeting but also received some criticism. Several months later, salespeople who joined Gene's side had increased sales, whereas those who did not follow Gene's advice had lost credibility and experienced declines in their sales. Additionally, the actions of the salespeople who followed Gene's recommendation resulted in better relationships with the company's customers as the honest approach created a greater level of trust.

Case 6 (Deon.+, Egoist +, Utilitarian -). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Salespeople at Ajax manufacturing sometimes overstate their present plant capacity utilization, believing this will help them negotiate the best price with customers. Gene thinks that overstating plant utilization is an improper sales tactic and expressed this opinion in a recent sales meeting. Gene discussed the case of a colleague in another company who had been overstating capacity utilization until he lost credibility with many of his customers as they discovered he was misleading them. Gene obtained some support in the meeting but also received some criticism. Several months later, salespeople who joined Gene's side had increased sales, whereas those who did not follow Gene's advice had lost credibility and experienced declines in their sales. However, the increased success experienced by only some of the salespeople, led to tremendous internal problems. The salespeople who had not supported Gene were generally older and found it difficult to change their selling style and accused the ones who followed Gene of benefitting at their expense. Eventually, arguments amongst employees over which sales practices to follow became so great and so widespread that they presented a threat to the company's once promising future.

Case 7 (Deon. +, Egoist -, Utilitarian +). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Salespeople at Ajax manufacturing sometimes overstate their present plant capacity utilization, believing this will help them negotiate the best price with customers. Gene thinks that overstating plant utilization is an improper sales tactic and expressed this opinion in a recent sales meeting. Gene discussed the case of a colleague in another company who had been overstating capacity utilization until he lost credibility with many of his customers as they discovered he was misleading them. Gene obtained some support in the meeting but also received some criticism. Several months later, salespeople who followed Gene's recommendation had experienced declines in their sales, whereas those who did not follow Gene's advice had increased sales. However, the actions of the salespeople who followed Gene's recommendations resulted in better relationships with the company's customers as the honest approach created a greater level of trust.

Case 8 (Deon.+, Egoist -, Utilitarian -). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Salespeople at Ajax manufacturing sometimes overstate their present plant capacity utilization, believing this will help them negotiate the best price with customers. Gene thinks that overstating plant utilization is an improper sales tactic and expressed this opinion in a recent sales meeting.

Gene discussed the case of a colleague in another company who had been overstating capacity utilization until he lost credibility with many of his customers as they discovered he was misleading them. Gene obtained some support in the meeting but also received some criticism. Several months later, salespeople who followed Gene's recommendation had experienced declines in their sales, whereas those who did not follow Gene's advice had increased sales. Additionally, the decreased success experienced by those salespeople who refused to overstate plant capacity to their customers led to tremendous internal problems. Salespeople who had supported Gene found it difficult to change back to their original sales tactics and resented the success of those who continued to mislead their customers. Eventually, arguments amongst employees over which sales practices to follow became so great and so widespread that they presented a threat to the company's once promising future.

Case 9 (Deon. -, Egoist +, Utilitarian +). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Occasionally, Gene's customers ask for recommendations on products for their company. Regardless of real customer needs, Gene recommends one of the most expensive items in the product line. Gene's practice has been very effective, resulting in increased sales of the more expensive products and higher profits. The higher profits generated by the implementation of Gene's sales tactics have in turn allowed the company to allocate much needed new resources to it's the worker's healthcare fund.

Case 10 (Deon. -, Egoist +, Utilitarian -). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Occasionally, Gene's customers ask for recommendations on products for their company. Regardless of real customer needs, Gene recommends one of the most expensive items in the product line. The salesperson's practice has been relatively effective, resulting in increased sales of the more expensive products and higher profits for the company. The price increases achieved by Gene have naturally resulted in higher input costs for manufacturers that use your products. Although not much was said at first, the increased costs have put added financial pressure on many of your longtime customers. If the behavior continues, there is a strong possibility that some of these loyal customers will start looking for a new supplier. If this happens, your company's long-term success will be seriously threatened.

Case 11 (Deon. -, Egoist-, Utilitarian +). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Occasionally, Gene's customers ask for recommendations on products for their company. Regardless of real customer needs, Gene recommends one of the most expensive items in the product line. One customer learned of Gene's over-recommending of more expensive products from a competing rep and all future business with this customer was lost. When other company salespeople heard of the customer's reaction to Gene's selling tactics, they decided as a group to try to develop a system for monitoring sales practices so that the company's good reputation would not be damaged. In the past, the salespeople had avoided using

such a system because they did not think it was needed. Everyone involved was surprised to find, however, that when customers heard of the new sales monitoring system they were more likely to do business with the company because they felt that they could trust the salespeople.

Case 12 (Deon. -, Egoist -, Utilitarian -). Gene, a salaried salesperson you supervise, has been one of your top performers over the last several years. Occasionally, Gene's customers ask for recommendations on products for their company. Regardless of real customer needs, Gene recommends one of the most expensive items in the product line. One customer learned of Gene's over-recommending of more expensive products from a competing rep and all future business with this customer was lost. Additionally, the price increases that were achieved by Gene resulted in higher input costs for manufacturers that used your products. Although not much was said at first, the increased costs put added financial pressure on many of your longtime customers. If the behavior continues, there is a strong possibility that some of these loyal customers will start looking for a new supplier. If this happens, your company's long-term success will be seriously threatened.

Case 13 (Deon. +, Egoist +, Utilitarian +). Gene, a salaried salesperson you supervise has been one of your top performers over the last several years. Some salespeople at Century Fashion tend to "over-recommend" the company's products by encouraging customers to buy the more expensive items in the product line regardless of actual customer needs. Gene does not engage in this practice, believing it to be an improper sales tactic. When asked for advice about products, Gene first asks the customer what his/her needs are and then recommends the product that will best satisfy the customer at the minimum price. One customer learned of Gene's good recommendation and called to examine the possibility of buying other products. Similarly, other customers learned about this approach and soon Gene's sales had increased substantially. The higher profits generated by the implementation of Gene's sales tactics have in turn allowed the company to allocate much needed new resources to it's the worker's healthcare fund.

Case 14 (Deon.+, Egoist +, Utilitarian -). Gene, a salaried salesperson you supervise has been one of your top performers over the last several years. Some salespeople at Century Fashion tend to "over-recommend" the company's products by encouraging customers to buy the more expensive items in the product line regardless of actual customer needs. Gene does not engage in this practice, believing it to be an improper sales tactic. When asked for advice about products, Gene first asks the customer what his/her needs are and then recommends the product that will best satisfy the customer at the minimum price. One customer learned of Gene's good recommendation and called to examine the possibility of buying other products. Similarly, other customers learned about this approach and soon Gene's sales had increased substantially. Gene's success, however, was not experienced by other salespeople, especially those that had been over-recommending products. Many of these salespeople who were negatively effected had been with the company for a long time and had a lot of informal power within the organization. The resulting internal conflicts over which sales practices to follow became

increasing intense and presented a very negative image to new customers that began to threaten the company's once promising future.

Case 15 (Deon. +, Egoist -, Utilitarian +). Gene, a salaried salesperson you supervise has been one of your top performers over the last several years. Some salespeople at Century Fashion tend to "over-recommend" the company's products by encouraging customers to buy the more expensive items in the product line regardless of actual customer needs. Gene does not engage in this practice, believing it to be an improper sales tactic. When asked for advice about products, Gene first asks the customer what his/her needs are and then recommends the product that will best satisfy the customer at the minimum price. Gene's recent sales, however, have lagged far behind those of salespeople who have adopted the "over-recommending" sales tactic. Some managers at Century Fashion believe that recent declines in sales and profits are the result of salespeople like Gene not emphasizing enough expensive products in their sales presentation. Other managers, however, noted that although these actions did not lead immediately to greater sales of high priced products, they did result in better relationships with the company's customers as the honest approach created a greater level of trust.

Case 16 (Deon.+, Egoist -, Utilitarian -). Gene, a salaried salesperson you supervise has been one of your top performers over the last several years. Some salespeople at Century Fashion tend to "over-recommend" the company's products by encouraging customers to buy the more expensive items in the product line regardless of actual customer needs. Gene does not engage in this practice, believing it to be an improper sales tactic. When asked for advice about products, Gene first asks the customer what his/her needs are and then recommends the product that will best satisfy the customer at the minimum price. Gene's recent sales, however, have lagged far behind those of salespeople who have adopted the "over-recommending" sales tactic. Some managers at Century Fashion believe that recent declines in sales and profits are the result of salespeople like Gene not emphasizing enough expensive products in their sales presentation. Additionally, the decreased success experienced by those salespeople who refused to over-recommend products to their customers led to tremendous internal problems. Salespeople who had supported Gene found it difficult to change back to their original sales tactics and resented the success of those who continued to mislead their customers. Eventually, arguments amongst employees over which sales practices to follow became so great and so widespread that they presented a threat to the company's once promising future.

Results

An analysis of variance of dependent measures across like cases of the two different scenarios suggests that, with the exception of cases 8 and 16, the two scenarios are not considered significantly different. The means, F-statistics, and p-values for the

eight case comparisons are presented in Table 4.1. Only cases one through four will be used in future research.

There were no significant differences for either dependent variable for case pairs 2/10 or 3/11. Case pair 6/14, however, approached significance on Ethical Judgment ($F_{1.22} = 2.933$, p < .103) and Intention to Punish/Reward ($F_{1.22} = 3.903$, p < .063). Respondents found case 14 to involve a more ethical act ($\mu_{14} = 5.38$ versus $\mu_6 = 6.33$) and in turn, they thought the case subject should receive a much higher reward ($\mu_{14} = 4.75$ versus $\mu_6 = 7.83$). Similarly, case pair 7 and 15 approached significance on Intention to Punish/Reward ($F_{1.21} = 3.50$, p < .077).

The results of pretest one suggest that the manipulation of the egoist and utilitarian components of the scenarios are generally working as expected. Portions of scenarios six and seven do need to be modified so that they are more comparable to scenarios fourteen and fifteen.

Table E.1
Summary of Analysis of Variance for like Cases Derived from Scenario One and Two

Cases Numbers	Means	F-Statistic	P-value
<u>1 & 9</u>			
Ethical	3.09/3.60	$F_{1,21} = 2.691$	p < .589
PunRew	1.64/4.80	F < 1	p < .117
<u>2 & 10</u>			
Ethical	2.46/2.91	$F_{1.21} = 1.015$	p < .316
PunRew	-2.20/-1.30	F < 1	p < .564
3 & 11			
Ethical	1.92/2.50	$F_{1,22} = 2.195$	p < .155
PunRew	-3.72/-3.17	F < 1	p < .777
<u>4 & 12</u>	· · · · · · · · · · · · · · · · · · ·		
Ethical	2.55/3.03	F < 1	p < .481
PunRew	-5.85/-2.67	$F_{1,21} = 3.011$	p < .100
<u>5 & 13</u>			
Ethical	6.05/5.63	F < 1	p < .584
PunRew	6.91/7.86	F < 1	p < .370
<u>6 & 14</u>		· · · · · · · · · · · · · · · · · · ·	
Ethical	5.38/6.33	$F_{1,22} = 2.933$	p < .103
PunRew	4.75/7.83	$F_{1.22} = 3.903$	p < .063*
<u>7 & 15</u>			
Ethical	5.56/6.25	$F_{1,21} = 1.349$	p < .261
PunRew	2.06/5.42	$F_{1,21} = 3.50$	p < .077*
<u>8 & 16</u>			
Ethical	4.514/6.55	$F_{1,22} = 32.605$	p < .000***
PunRew	-1.53/3.30	$F_{1.22} = 5.691$	p < .028**

^{**}significant at the .05 level

^{***}significant at the .001 level

Appendix F

Pretest Two

The primary purpose of pretest two was to test the effect of the gender role prime instrument on the judgments and intentions of male and female subjects. According to Deaux and Major (1984) subjects may assume a 'study subjects' role rather than their appropriate gender role or other types of social roles, when they take part in research studies. Additionally, the study subject role is thought to involve a heightened level of elaboration. Sex differences in responses should not exist under these conditions because the level of elaboration on message cues should not differ by sex. In contrast, when subjects are primed to enact their appropriate gender roles, sex differences in judgment should arise because of the differences in role expectations and information processing strategies associated with the two primary gender roles (Meyers-Levy, 1988, Meyers-Levy and Sternthal, 1991). Thus, sex differences in judgment and intention should exist when gender-role primes are present but not in conditions where role primes are absent.

Procedures

Two versions of a questionnaire were developed. Version one of the questionnaire was printed on two sides of single 8.5 x 11 inch page. Side one contained a gender role prime while side two presented a brief scenario followed by an ethical judgment measure and an intention to punish or reward measure. Version two was used to measure the responses of subjects that had not been exposed to a gender-role prime and consequently, it could be printed on one side of the page. An example of the gender-role prime used in this pretest can be found in Appendix C. The scenario and questionnaire

portion used in this pretest were similar to that used in pretest one. Readers can refer to Appendix E for examples of the scenario and questionnaire portion of the instrument.

Only deontologically unethical versions of the overstating plant capacity scenarios were included in this pretest. Thus, a total of two cases were used. The first case contained a positive egoist component and a negative utilitarian component. In case two, the egoist component was negative and the utilitarian component was positive.

Results

Females' and Males' Judgments and Intentions for Case 1 and Case 2. With respect to case one (positive egoist and negative utilitarian components), the main effect of the presence of a gender-role prime was not significant for subjects' ethical judgments ($F_{1.39} = 1.128$, p < .295) or intentions (F < 1). The main effect of sex was not significant for ethical judgments ($F_{1.39} = 1.677$, p < .203) but it was highly significant for intentions ($F_{1.39} = 7.554$, p < .009). Males' intentions to punish the subordinate in the scenario were significantly less severe ($\mu = -3.000$) than females' ($\mu = -5.217$) overall. The interaction effect of sex x gender-role prime was not significant for judgments ($F_{1.39} = 1.677$, p < .203) or intentions (F < 1). The main effect of sex did approach significance when the analysis was restricted to when the gender-role prime was present ($F_{1.21} = 2.174$, p < .155).

In analyzing the results for case two (negative egoist and positive utilitarian), the main effect of the presence of a gender-role prime was highly significant for ethical judgment (F $_{1.38} = 7.814$, p < .008) and intention (F $_{1.38} = 6.293$, p < .017). The main

effect of sex was not significant for ethical judgment (F < 1) or intention (F < 1). The interaction effect of sex by the presence of a gender-role prime was also not significant for ethical judgment (F < 1) or intention (F < 1). The means and standard errors for males' and females' ethical judgments and intentions for case 1 and case 2 can be found in Table F.1. Further analysis of the significance of the main effect of sex was carried out after reviewing the graph of males' and females' intentions for case 2. When the analysis was restricted to the presence of a gender-role prime condition, however, the main effect of sex was not significant ($F_{1,23} = 1.535$, P < .228). This result was surprising because of the 2.1 unit difference between males' and females' responses to the behavioral intention measure. It was then noted that the standard error term for subjects' intentions to reward or punish in case 2 were high, relative to case 1 and to the measures of ethical judgments. This may have been the result of outliers or simply the small sample size.

The results of pretest two suggest that the measures of the dependent variables do not need modifications. Additionally, plots of the empirical results suggest that the manipulations of the independent variables are also working properly. Although, the lack of statistical significance for hypothesized interaction effects was probably due to the small sample size, it was determined that the results of future tests could be improved by strengthening the role primes and scenario components.

Table F.1

Means and Standard Errors for Males' and Females' Ethical Judgments and Intentions for Case 1 and Case 2

Dependent	Case				
Variable	Number	Prime	Sex	Mean	Std. Error
Ethical	1	GR	Male	3.000	.306
Judgment			Female	2.231	.268
		None	Male	2.300	.306
_			Female	2.300	.306
_	2	GR	Male	2.556	.294
			Female	2.333	.228
		None	Male	1.625	.312
			Female	1.700	.279
Intention	1	GR	Male	-3.500	.830
			Female	-5.231	.728
		None	Male	-2.500	.830
_	<u> </u>		Female	-5.200	.830
_	2	GR	Male	-4.333	1.213
			Female	-2.200	.939
		None	Male	-6.125	1.286
			Female	-6.200	1.150

Effects of Gender-Role Primes on Males' Ethical Judgments and Intentions. The main effect of the presence of a gender-role prime on males' ethical judgments was significant (F $_{1,33} = 5.558$, p < .024) but not for intentions (F < 1). Males judged Gene's behavior to be more ethical when they were exposed to a gender-role prime ($\mu = 2.778$) than when no gender-role prime was present ($\mu = 1.963$).

The main effect of organizational or individual consequences approached significance for ethical judgment (F $_{1.38}$ = 2.620, p < .115) and was highly significant for intentions (F $_{1.38}$ = 6.376, p < .017). Males' intentions to punish Gene were more severe for case 2 (μ = -5.229) than for case 1 (μ = -3.000). The interaction effect of the presence of a gender-role prime by organizational and individual consequences was not significant for ethical judgments (F < 1) but it did approach significance for intentions

(F $_{1,38}$ = 2.500, p < .123). Please refer to Table F.2 for means and standard errors for the interaction effect of the presence of a gender-role prime by organizational and individual consequences.

Males' appear to judge the behavior in case one (positive egoist condition) to be more ethical than case two (negative egoist condition). There does not appear to be any interaction between organizational and individual consequences (case one and case two) and the presence or absence of a role prime.

Males' intentions to reward or punish the behaviors represented in the scenarios varies less across case one and two when a role prime is present than when it is absent.

This was opposite of the expected effect of this manipulation. This result may have been caused by a confusing representation of the egoist component.

Table F.2

Means and Standard Errors for the Interaction Effect of Presence of Gender-Role

Prime by Organizational and Individual Consequences for Males

Dependent				
_Variable	Prime	Case Number	Mean	Std. Error
Ethical	Gender-Role	ī	3.000	.331
Judgment		2	2.556	.349
	None	1	2.300	.331
		2	1.625	.872
Intention	Gender-Role	1	-3.500	.845
		2	-4.333	.891
	None	1	-2.500	.845
		2	-6.123	.945

Effects of Gender-Role Primes on Females' Ethical Judgments and Intentions.

The main effect of the presence of a gender-role prime was significant for intentions

(F $_{1.44} = 3.765$, p < .059) but not for ethical judgments (F $_{1.38} = 1.366$, p < .249). Females'

intentions to punish Gene were less severe when a gender-role prime was present (μ = -3.715) than when no gender-role prime was given (μ = -5.700). The main effect of organizational or individual consequences was not significant for ethical judgment (F _{1.38} = 1.062, p < .308) or intentions (F < 1). The interaction effect of the presences of a gender-role prime by organizational or individual consequences approached significance for ethical judgments (F _{1.38} = 2.118, p < .152) and was significant for intentions (F _{1.38} = 3.882, p < .055). Females' intentions to punish Gene were less severe for case 2 than case 1 when a gender-role prime was present. When the gender-role prime was not present, females' intentions were not significantly different across cases. This suggests that the positive utilitarian component in case 2 had more influence on females' intentions when the gender-role prime was present and that their preferences for information that was consistent with their enacted role led to a less severe intention to punish. Means and standard deviations for females' ethical judgments and intentions for case 1 and case 2 are presented in Table F.3.

Table F.3

Means and Standard Errors for the Interaction Effect of Presence of Gender-Role

Prime by Organizational and Individual Consequences for Females

Dependent				
Variable	Prime	Case Number	Mean	Std. Error
Ethical	Gender-Role	1	2.231	.228
Judgment		2	2.333	.213
	None	1	2.300	.260
		2	1.700	.260
Intention	Gender-Role	1	-5.231	.968
		2	-2.200	.901
	None	1	-5.200	1.104
		2	-6.200	1.104

The analysis of the results suggests that females' responded well to the utilitarian manipulation as they judged it to be more ethical and intended to use less severe punishments when the gender-role prime was present. In contrast, females' judgments and intentions associated with case two did not seem to change when the gender-role prime was present. This may suggest that the egoist component needs to be strengthened.

Appendix G

Pretest Three

The purpose of pretest three was to further test scenario content as well as the effectiveness of gender-role and work-role primes. The questionnaires were printed on the front and back of 81/2 by 14 inch sheets of paper. It contained a cover page, a role prime, a scenario and the ethical judgment and intention measures along with demographic variables, and finally an eight-item test of scenario content. The only two scenarios included in pretest three were the improved versions of scenario two and three that appeared in different forms in pretest one and pretest two.

The surveys were distributed to 128 M.B.A. students at the University of Texas-Pan American and the University of Texas at Brownsville. Selected results of the analysis of variance are shown in Table G.1. The interaction effect of role prime by sex was not significant for intention (F < 1) but it did approach significance for ethical judgment (P < 0.097). Similarly, the interaction effect of prime by occupation was not significant for intention (P < 1) but it approached significance for ethical judgment (P < 0.019). The main effect of scenario was significant for ethical judgment (P < 0.019) and approached significance for intention (P < 0.019).

Although the role primes were still not as effective as hoped, as evidenced by the lack of significance of the prime by sex and prime by occupation interactions, the results were promising given the sample used in the pretest. Unlike the final study, the occupations of subjects could not be clearly separated into primarily agentic versus communal work roles. Furthermore, many of the subjects were either part-time or full-time students and this may have created even more inconsistencies in the roles being enacted.

Table G.1

Summary of the Analysis of Variance for the Interaction Effects of Prime by Sex and Prime by Occupation on Ethical Judgment and Intention

Source	Dependent Variable	df	F	Sig.
		Between Sub	ojects	
Corrected Model	Ethical Intention ^{1,a} Ethical Judgment ^{2,b}	22 22	1.245 1.805	.232 .028
Prime (A)	Ethical Intention Ethical Judgment	2	.228 .515	.634 .475
Sex (B)	Ethical Intention Ethical Judgment	1	.363 .918	.548 .340
Occupation (C)	Ethical Intention Ethical Judgment	2	1.156 4.120	.319 .019
Scenario (D)	Ethical Intention Ethical Judgment	1	2.041 8.423	.157 .019
A x B	Ethical Intention Ethical Judgment	2 2	.596 2.817	.442 .097
A x C	Ethical Intention Ethical Judgment	4 4	.082 2.860	.921 .062
error	Ethical Intention Ethical Judgment	90 90		

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measure on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).

The finding of a main effect of scenario would suggest that the modifications to the scenario manipulations were relatively successful. The lack of significance for the effect of the scenario variable on intentions would suggest, however, that the teleology content needs to be clarified. The rationale for this is the teleology evaluation is predicted to have a direct effect on intention and since the teleology content is the only

² Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

 $a R^2 = 0.314$

 $b R^2 = 0.348$

thing that differed between the scenarios, a lack of significance would suggest that a more effective manipulation is needed.

A second purpose of pretest three was to assess the dimensionality of the role prime. Although the prime will not be used as a true scale in the final analysis, its effectiveness in stimulating subjects to enact an appropriate social role should be enhanced if the scale is made of an agentic and communal factors or only one of the factors. Meyers-Levy (1989) showed that a gender-role prime did not need to contain both agentic and communal statements since a subject that enacted an agentic prime would simply disagree with a communal statement and vice versa. The role prime used in the pretest is as follows:

Strong Agree 1	•	Slightly Agree 3	Neither Agree nor Disagree 4	Slightly Disagree 5		ı	Disag 6	gree		Strongly Disagree 7
A.	I take the lead in	making decisions	i .	I	2	3	4	5	6	7
B.	I contribute a gre	I	2	3	4	5	6	7		
C.	I do not like bein	g under someone	else's control.	1	2	3	4	5	6	7
D.	I am sympathetic	i	2	3	4	5	6	7		
E.		a personal relatio nieving an importa	nship if it ant personal goal.	1	2	3	4	5	6	7
F.	I share with other	'S.		ī	2	3	4	5	6	7
G.	I find it difficult to for others' success	• • •		1	2	3	4	5	6	7
H.	I act for the good	of others.		I	2	3	4	5	6	7
I.	I do not emphasiz feelings when I n	• •		ī	2	3	4	5	6	7

J.	It is important for me to have the affection of other people.	1	2	3	4	5	6	7
K.	I like to be in charge.	1	2	3	4	5	6	7
L.	I try to gain the support of others when making decisions.	1	2	3	4	5	6	7

A factor analysis was performed to determine the dimensions of the prime. The results of the factor analysis are presented in Table G.2.

Table G.2

Factor Loadings for the Four Factor Solution for the Agentic/Communal Role Prime

Item ¹	Factor 1	Factor 2	Factor 3	Factor 4
B. I contribute a great deal to the well being of others.	.713			
D. I am sympathetic.	.687			
F. I share with others.	.825			
H. I act for the good of others.	.580			
J. It is important for me to have the affection of other people.	.720			
L. I try to gain the support of others when making decisions.	.430	.596		
A. I take the lead in making decisions.		.475		
C. I do not like being under someone else's control.		.837		
K. I like to be in charge.		.768		
G. I find it difficult to feel happy for others' success when I fail.			.781	
I. I do not emphasize other peoples' feelings when I make decisions.			.769	

Table G.2 (Continued)

E. I would sacrifice a personal relationship if it kept me from achieving an important personal goal.				.737
Eigenvalues	3.322	1.829	1.276	1.110
Cumulative % of Variance	27.683	42.926	53.556	62.807
Cronbach's α	.78	.67	.43	

¹ Varimax Rotation with Kaiser Normalization was used as the extraction method.

The factor analysis revealed that the prime contained four factors. Factor one was made up of five items that generally embodied the characteristics of communion as described by Bakan (1966). The second factor was made up of items that dealt with being in charge, characteristics that are described as part of agency by Bakan (1966). The statement "I try to gain the support of others when making decisions" loaded on both factor one and factor two. The third factor was composed of only two items and could be considered to represent concerns for the input of others. The final factor was composed of only one item. The variance of responses to this item was relatively high and it was determined that its meaning was not clear. Consequently, statement E was not used in subsequent analysis.

After analyzing the results of the first pretest, it was determined that additional statements were needed. These statements were taken from Manhardt (1978) and Watts et al. (1982). The new list of statements, shown in Table G.3, was pretested on a sample of 119 undergraduate students at the University of Texas-Pan American. The result of the factor analysis of these items is presented in Table G.4

Table G.3

List of Items Used in Agentic/Communal Role Prime Pretest

- A. To take the lead in making decisions.
- B. To be sympathetic to others.
- C. To take charge of situations.
- D. To share with others.
- E. To desire recognition for your achievements.
- F. To act for the good of others.
- G. To assume new responsibilities.
- H. To be in a friendly atmosphere.

- I. To focus on achieving personal goals.
- J. To develop a clear understanding of the expectations of others.
- K. To acquire authority over others.
- L. To acquire a feeling of security.
- M. To determine your own destiny.
- N. To be charitable.
- O. To become financially successful.

Once again, the factor analysis revealed a four factor solution. Items J, L, and M loaded strongly on more than one factor and were dropped from the analysis. The fourth factor, however, contained only one item and that item was dropped from the analysis. The third factor, which may be considered to represent security, was also dropped. The items in the third factor were similar to those found in the support factor found in the Watts et al. (1982) study. The third factor was considered to represent agency because the items focused on acquiring authority and control. The first factor was considered to represent communion because the items mainly focused on doing things for others. It was determined that the pretest analysis had provided enough items for a final role prime.

Table G.4

Factor Loadings for the Four Factor Solution for Revised Agentic/Communal Role Prime

Item	Factor 1	Factor 2	Factor 3	Factor 4
B. To be sympathetic to others.	.744			
D. To share with others.	.734			
F. To act for the good of others.	.698			
H. To be in a friendly atmosphere.	.719			
N. To be charitable.	.635			
J. To develop a clear understanding of the expectations of others.	.582	.501		
A. To take the lead in making decisions.		.856		
C. To take charge of situations.		.766		
G. To assume new responsibilities.		.619		
K. To acquire authority over others.		.655		
L. To acquire a feeling of security.		.432	.507	
M. To determine your own destiny.		.472	.610	
I. To focus on achieving personal goals.			.674	
O. To become financially successful.			.805	
E. To desire recognition for your achievements.				.800
Eigen Values	5.164	2.226	1.340	1.024
Cumulative % of variance	34.428	49.268	58.204	65.027
Cronbach's α	.85	.77	.71	

IVarimax Rotation with Kaiser Normalization was used as the extraction method.

Appendix H

Pretest Four

Pretest four used a 2 prime condition (gender-role prime, no role prime) by 4 scenario (neg. deon./pos. egoist/pos. utilitarian, neg. deon./pos. egoist/neg. utilitarian, neg. deon./neg. egoist/neg. utilitarian) factorial design to test the effectiveness of the expanded scenario content manipulations and the prime manipulation. Based on previous pretest finding, it was determined that it would be beneficial to include the two scenario conditions in which the egoist and utilitarian components of teleology were either both positive or negative. The two primary reasons for this change in design were: (1) the final research findings would be more comparable to studies that did not separate the teleology component such as Hunt and Vasquez-Parraga (1993), and (2) it would allow for the analysis of the relative change subjects' responses when one teleology variable was changed and the other held constant.

Surveys were distributed to 256 undergraduate students at the university of Texas-Pan American and the University of Texas at Brownsville. The main effect of scenario, a test of the scenario manipulations, was found to be highly significant for intention $(F_{3,216} = 17.919, p < .000)$ and ethical judgment $(F_{3,216} = 8.840, p < .000)$. The main effect of the prime approached significance for ethical judgment $(F_{1,216} = 3.529, p < .062)$ but not for intention $(F_{1,216} = 1.351, p < .246)$. The interaction effect of prime by sex was not significant for intention (F < 1) or ethical judgment (F < 1). The prime by sex by scenario interaction was not significant for intention $(F_{3,216} = 1.804, p < .147)$ but it was highly significant for ethical judgment $(F_{3,216} = 4.481, p < .004)$.

The finding of a highly significant scenario effect was a positive sign that the scenario manipulations were working. These empirical findings were followed up,

however, by interviews with five students and five professors at the University of Texas at Brownsville. The subjects were given a copy of all four scenarios at the same time and were asked to rank them on the basis of their ethicalness and on how they would respond. The subjects were then asked to discuss their rankings and give suggestions on how the scenario manipulations could be improved. This exercise led to a number of modifications to the language of the scenarios.

The lack of significance for the prime by sex interaction was a concern given that the scenario development process was in its final stages. The lack of significance of these interaction effects was thought to be due to a number of key factors. The first was that the prime had been modified from a 7-point Likert to a bipolar statement type scale. This may have reduced the effectiveness of the scale in stimulating subjects to enact an appropriate role. A second explanation was rooted in the sample itself. The premise behind the use of primes is that subjects from a certain group (i.e., male or female) will generally enact similar roles. The sample used in this pretest, however, was composed of subjects with a wide range of nationalities. Approximately 23% of the sample was made up of subjects of non-U.S. origin and 22% of the subjects were raised in a foreign country. Thus, there was a possibility that the gender-roles enacted may have also differed by nationality and/or the place where the subject was raised.

Table H.1

Summary of the Analysis of Variance for the Main Effects of Prime, Sex, and Scenario and their Interaction Effects on Ethical Judgment and Intention

Source	Dependent Variable	df	F	Sig.
		Between Su	bjects	
Corrected Model	Ethical Intention ^{1,a} Ethical Judgment ^{2,b}	15 15	4.561 3.137	.000 .000
Prime (A)	Ethical Intention Ethical Judgment	1	1.351 3.529	.246 .062
Sex (B)	Ethical Intention Ethical Judgment	1	.021 1.030	.884 .311
Scenario (C)	Ethical Intention Ethical Judgment	3	17.919 8.840	.000 .000
AxB	Ethical Intention Ethical Judgment	1	.000 1.410	.997 .236
AxC	Ethical Intention Ethical Judgment	2 2	3.842 1.804	.010 .147
AxBxC	Ethical Intention Ethical Judgment	3 3	1.804 4.481	.147 .004
error	Ethical Intention Ethical Judgment	216 216		

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measure on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).

² Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

 $a R^2 = 0.241$

 $b R^2 = 0.179$

To investigate the influence of a subject's nationality on their ethical judgments and intentions an ANOVA was performed. The results of this test are presented in Table H.2. The place in which the subject was raised was also included in the analysis to control for cases where the individual was born in one country and raised in another country. Although they may be technically citizens of country A, their socialization would have taken place in country B and consequently, they would most likely behave like citizens from country B when primed. This was a strong possibility in this case because of the closeness between Mexico and the two schools in which the data was collected.

Table H.2 shows that the main effect of nationality was significant for intention (F $_{3.238}$ = 2.577, p < .054) and ethical judgment (F $_{3.238}$ = 2.511, p < .059). The main effect of place raised was not significant for either dependent variable (F < 1 for both). Furthermore, the interaction effect of nationality by place raised by prime approached significance for intention (p < .087) but not for ethical judgment (F < 1). To further test for the effects of nationality and the place raised on subjects' ethical judgments and intentions the interaction effect of prime by sex by scenario was tested once again with nationality and place raised imputed at covariates. Although the significance of the interaction on ethical judgment changed only slightly (p < .002) the interaction effect on intention was now quite significant (F $_{3.214}$ = 4.648, p < .004). Recall that the interaction effect on intention was not found to be significant (p < .147) when nationality and place raised were not controlled for, as shown in Table H.1. From these results, it was determined that part of the problem with the effectiveness of the role prime could be

attributed to characteristics of the sample. The ramifications of these findings on the effects of nationality on subjects' ethical judgments and intentions are discussed in the suggestions for future research section in Chapter IV.

Table H.2

Summary of the Analysis of Variance for the Effects of Nationality and Place Raised

	Dependent			
Source	Variable	df	F	Sig.
		Between Sul	bjects	
Corrected	Ethical Intention ^{1,a}	11	1.513	.127
Model	Ethical Judgment ^{2,b}	11	1.593	.101
Prime (A)	Ethical Intention	1	3.470	.064
,	Ethical Judgment	1	.018	.893
Nationality (B)	Ethical Intention	3	2.577	.054
• • •	Ethical Judgment	3	2.511	.059
Place Raised	Ethical Intention	2	.394	.675
(C)	Ethical Judgment	2	.521	.595
AxB	Ethical Intention	1	.146	.827
	Ethical Judgment	I	.048	.699
AxC	Ethical Intention	1	.150	.699
	Ethical Judgment	1	.973	.325
ВхС	Ethical Intention	ı	2.003	.158
	Ethical Judgment	I	.304	.582
AxBxC	Ethical Intention	1	2.951	.087
	Ethical Judgment	1	.847	.358
error	Ethical Intention	214		
	Ethical Judgment	214		

¹ Managers' ethical intentions to reward or punish subordinates in the scenario were measure on a 21-point scale anchored by "The Most Severe Punishment" (-10) and "The Most Kind Reward" (+10).

² Managers' ethical judgments were measured on a seven-point Likert scale anchored by "Extremely Ethical" (7) and "Extremely Unethical" (1).

 $a R^2 = 0.065$

 $b R^2 = 0.069$

Appendix I

Questionnaires

Dear Business Professional:

The College of Business Administration at the University of Texas-Pan American is exploring how business professionals handle certain kinds of personal problems. Enclosed is a very short questionnaire describing a business event, the possible actions a manager might take in response to the event, and a few demographic questions for classification purposes. It only takes 5 minutes to complete the questionnaire.

Previous research has shown how students respond to the case described in the survey. Student-based surveys, however, are of little practical use in the business world. Please help us find out how "real world" business professional, like yourself, would respond. The response rate for a survey of this kind is typically quite low so you cooperation will be most appreciated. All individual responses are anonymous and confidential. If you would like to review the results of this study, please go to: http://members.tripod.com/jasonbmacdonald/ after 1 September, 1999. Sincerely yours,

Jason B. MacDonald
Project Manager, Department of Management/Marketing and International Business

SECTION 1 OF 5: Please indicate your level of agreement or disagreement with the following statements on the scale provided. Circle the number that best reflects your answer.

Strongly Agree 1	Agree 2	Slightly Agree 3	Slightly Disagree Disa 5 6				gree		Strongly Disagree 7		
1. I am syn	pathetic to the	needs of others.		1	2	3	4	5	6	7	
2. I share w	ith others.			1	2	3	4	5	6	7	
3. I need th	e affection of	other people.		1	2	3	4	5	6	7	
4. I am cha	ritable.	• •		1	2	3	4	5	6	7	
5. I take ch	arge of situation	ons.		ı	2	3	4	5	6	7	
6. I openly	express my aff	fection for others.		1	2	3	4	5	6	7	
7. I succeed	i because of m	y skills rather than	hard work or luck.	i	2	3	4	5	6	7	
		e against others.		1	2	3	4	5	6	7	

SECTION 2 OF 5: Please read the following short case and then answer the two case related questions.

Gene, a salesperson you supervise, has been one of your top performers over the last several years. Recently, Gene has been telling purchasing agents that rising popularity of the company's product has driven the utilization of plant capacity to a very high level and as a result, the company's production costs have also increased. Gene adds, however, that upper management has been persuaded to pass on only part of these cost increases so that the company's customers can remain competitive. Gene does this even though utilization of plant capacity is actually low. Purchasing agents are generally unaware of these overstatements. The use of this selling tactic has resulted in higher prices and sales for Gene. Gene's performance has also been beneficial for you in that you were one of the few divisional sales managers to meet the company's sales quotas. Furthermore, the company's relationships with its customers have actually been strengthened by the perception that Gene had acted on their behalf to avoid an even greater price increase that would have compromised their ability to subsequently satisfy the end consumers.

1.

How would you respond to Gene's behavior with respect to punishments or rewards. Please indicate your answer by circling the number that best represents your intention on the following scale that ranges from The Most Severe Punishment (-10) to The Most Kind Reward (+10). The Most The Most Severe Kind Punishment Reward -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 2. How ethical/unethical do you believe Gene's behavior was? Please circle the number that best represents your opinion on the following scale: Neither Very Slightly Ethical nor Slightly Very Ethical Ethical Ethical Unethical Unethical Unethical Unethical 7 6 3 2 SECTION 4 OF 5: Please complete the following information that will be used for classification purposes only. 1. Sex: Male Female 2. Age: ____ 3. Occupation: Accounting ____ Human Resources ____ Marketing ___ Other ____ 4. How many years have you been employed by your current company? 5. How many total years of business experience do you have? ___ 6. How many people do you supervise?___ 7. What was your approximate compensation from your employer in 1998? 8. How were you compensated in 1998? Straight Salary Straight Commission Salary and Commission 9. Which one of the following best describes your formal education? (Please circle one) A. High School Degree or less B. Some College C. College Graduate D. Graduate Degree (Master or Higher) 10. In What Country Were You Born: 11. In What Country Were You Raised: SECTION 5 OF 5: DO NOT look back at the case you read in Section B once you have started this section. Please indicate if the following statements refer to actual events explicitly described in the case that you have just read in Section B. If you are confident in your answer, circle Yes or No. Circle Unsure if you are uncertain about the answer. Yes ____ No___ 1. The popularity of your company's products was rising. Unsure Yes ____ No____ Unsure ____ 2. Production costs increased. Yes ____ No___ Unsure __ 3. Utilization of plant capacity was at a high level. 4. Gene persuaded management to pass only part of the cost increases to their customers. Yes ____ No___ Unsure Yes No___ Unsure _ 5. Gene has greatly increased profits. Yes ____ No___ Unsure ___ 6. Gene received a promotion 7. Gene helped the company's customers better satisfy their end Yes ____ No___ Unsure ____ Yes ___ No__ Unsure ____ consumer.

You Have Completed the Survey. Please Use the Adhesive Proved to Seal the Survey Before Mailing. If you prefer to fax your response, the number is (956)381-2867. Thank You!

8. Gene's customers increased their sales.

Dear Business Professional:

The College of Business Administration at the University of Texas-Pan American is exploring how business professionals handle certain kinds of personal problems. Enclosed is a very short questionnaire describing a business event, the possible actions a manager might take in response to the event, and a few demographic questions for classification purposes. It only takes 5 minutes to complete the questionnaire.

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Strongly Agree 1	Agree 2	Slightly Agree 3	Neither Agree nor Disagree 4	Slightly Disagree 5		I	Disag 6	gree		Strongly Disagree 7
1. I am sym	pathetic to the	needs of others.		1	2	3	4	5	6	7
2. I share w	ith others.			1	2	3	4	5	6	7
3. I need the	e affection of o	other people.		1	2	3	4	5	6	7
4. I am chai	ritable.			1	2	3	4	5	6	7
5. I take cha	arge of situation	ons.		1	2	3	4	5	6	7
6. I openly	express my aff	fection for others.		1	2	3	4	5	6	7
7. I succeed	l because of m	y skills rather than	hard work or luck.	1	2	3	4	5	6	7
		e against others.		1	2	3	4	5	6	7

SECTION 2 OF 5: Please read the following short case and then answer the two case related questions.

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How would you respond to Gene's behavior with respect to punishments or rewards. Please indicate

l.

your answer by circling the number that best represents your intention on the following scale that ranges from The Most Severe Punishment (-10) to The Most Kind Reward (+10). The Most The Most Severe Kind Punishment Reward -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 2. How ethical/unethical do you believe Gene's behavior was? Please circle the number that best represents your opinion on the following scale: Neither Very Ethical nor Slightly Slightly Very Ethical Ethical Ethical Unethical Unethical Unethical Unethical 7 6 5 3 2 SECTION 4 OF 5: Please complete the following information that will be used for classification purposes only. 1. Sex: Male Female 2. Age: ____ 3. Occupation: Accounting ____ Human Resources ___ Marketing ___ Other ____ 4. How many years have you been employed by your current company? 5. How many total years of business experience do you have? 6. How many people do you supervise? 7. What was your approximate compensation from your employer in 1998? 8. How were you compensated in 1998? Straight Salary Straight Commission Salary and Commission 9. Which one of the following best describes your formal education? (Please circle one) A. High School Degree or less B. Some College C. College Graduate D. Graduate Degree (Master or Higher) 10. In What Country Were You Born:___ 11. In What Country Were You Raised: SECTION 5 OF 5: DO NOT look back at the case you read in Section B once you have started this section. Please indicate if the following statements refer to actual events explicitly described in the case that you have just read in Section B. If you are confident in your answer, circle Yes or No. Circle Unsure if you are uncertain about the answer. Yes ____ No___ Unsure ____ 1. The popularity of your company's products was rising. Yes ____ No____ Unsure ____ 2. Production costs increased. 3. Utilization of plant capacity was at a high level. Yes ____ No___ Unsure ____ 4. Gene persuaded management to pass only part of the cost increases to their customers. Yes ____ No__ Unsure ____ 5. Gene has greatly increased profits. Yes ____ No___ Unsure 6. Gene received a promotion Yes No Unsure 7. Gene helped the company's customers better satisfy their end consumer. Yes No Unsure 8. Gene's customers increased their sales. Yes No Unsure

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1. I am sym	pathetic to the	needs of others.		1	2	3	4	5	6	7			
2. I share w	ith others.			1	2	3	4	5	6	7			
3. I need th	e affection of o	other people.		l	2	3	4	5	6	7			
4. I am cha	ritable.			1	2	3	4	5	6	7			
5. I take ch	arge of situation	ns.		1	2	3	4	5	6	7			
6. I openly	express my aff	ection for others.		1	2	3		5	6	7			
			hard work or luck.	1	2	3	4	5	6	7			
		against others.		1	2	3	4	5	6	7			

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I.

How would you respond to Gene's behavior with respect to punishments or rewards. Please indicate your answer by circling the number that best represents your intention on the following scale that ranges from The Most Severe Punishment (-10) to The Most Kind Reward (+10). The Most The Most Severe Kind **Punishment** Reward -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 2. How ethical/unethical do you believe Gene's behavior was? Please circle the number that best represents your opinion on the following scale: Neither Verv Slightly Ethical nor Slightly Verv Ethical Ethical Ethical Unethical Unethical Unethical Unethical 5 3 2 7 6 4 1 SECTION 4 OF 5: Please complete the following information that will be used for classification purposes only. 1. Sex: Male Female 2. Age: 3. Occupation: Accounting ____ Human Resources ____ Marketing ___ Other ____ 4. How many years have you been employed by your current company? 5. How many total years of business experience do you have?___ 6. How many people do you supervise?___ 7. What was your approximate compensation from your employer in 1998? 8. How were you compensated in 1998? Straight Salary Straight Commission Salary and Commission 9. Which one of the following best describes your formal education? (Please circle one) A. High School Degree or less B. Some College C. College Graduate D. Graduate Degree (Master or Higher) 10. In What Country Were You Born: _____ 11. In What Country Were You Raised: ___ SECTION 5 OF 5: DO NOT look back at the case you read in Section B once you have started this section. Please indicate if the following statements refer to actual events explicitly described in the case that you have just read in Section B. If you are confident in your answer, circle Yes or No. Circle Unsure if you are uncertain about the answer. 1. The popularity of your company's products was rising. Yes ____ No____ Yes ____ No___ Unsure Production costs increased. Yes ____ No__ Unsure Utilization of plant capacity was at a high level. 4. Gene persuaded management to pass only part of the Yes ____ No___ Unsure cost increases to their customers. Yes ____ No___ Unsure _ 5. Gene has greatly increased profits. Yes No Unsure 6. Gene received a promotion 7. Gene helped the company's customers better satisfy their end consumer. Yes ____ No___ Unsure __

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Yes No Unsure

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l. I am syn	npathetic to the	needs of others.		i	2	3	4	5	6	7
2. I share w	vith others.			l	2	3	4	5	6	7
3. I need th	e affection of o	other people.		i	2	3	4	5	6	7
4. I am cha	ritable.			I	2	3	4	5	6	7
5. I take ch	arge of situation	ons.		I	2	3	4	5	6	7
6. I openly	express my aff	fection for others.		i	2	3	4	5	6	7
7. I succeed	d because of m	y skills rather than	hard work or luck.	ı	2	3	4	5	6	7
8. I feel a n	eed to compete	e against others.		1	2	3	4	5	6	7

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Yes No Unsure

Yes No Unsure

Yes No Unsure

Yes No Unsure

7. Gene helped the company's customers better satisfy their end

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8. Gene's customers increased their sales.

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consumer.

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Strongly Agree 1	Agree 2	Slightly Agree 3	Neither Agree nor Disagree 4	Slightly Disagree 5		Disagree 6				Strongly Disagree 7	
1. While at	1	2	3	4	5	6	7				
2. While at	ı	2	_		5	6	7				
3. While at	her people.	1	2	3	4	5	6	7			
4. While at	work, I am ch	aritable.		1	2	3	4	5	6	7	
5. While at	work, I take cl	harge of situations	5.	i	2	3	4	5	6	7	
6. While at 7. While at	1	2	3	4	5	6	7				
of my sk	ills rather than	hard work or luci	k.	1	2	3	4	5	6	7	
8. While at	1	2	3	4	5	6	7				

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1.

consumer.

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6. How many people do you supervise? 7. What was your approximate compensation from your employer in 1998? 8. How were you compensated in 1998? Straight Salary Straight Commission Salary and Commission 9. Which one of the following best describes your formal education? (Please circle one) A. High School Degree or less B. Some College C. College Graduate D. Graduate Degree (Master or Higher) 10. In What Country Were You Born: 11. In What Country Were You Raised: SECTION 5 OF 5: DO NOT look back at the case you read in Section B once you have started this section. Please indicate if the following statements refer to actual events explicitly described in the case that you have just read in Section B. If you are confident in your answer, circle Yes or No. Circle Unsure if you are uncertain about the answer. 1. The popularity of your company's products was rising. Yes _____ No____ Unsure ____ Yes ____ No___ Unsure ____ 2. Production costs increased. Yes ____ No___ Unsure 3. Utilization of plant capacity was at a high level. 4. Gene persuaded management to pass only part of the Yes ____ No___ Unsure cost increases to their customers. Yes _____ No____ Unsure ____ 5. Gene has greatly increased profits. Yes ____ No___ Unsure_ 6. Gene received a promotion 7. Gene helped the company's customers better satisfy their end

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Yes ____ No___ Unsure __ Yes ___ No___ Unsure __

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Strongly Agree 1	Agree 2	Slightly Agree 3	Agree Disagree Disagree Disagree					Strongly Disagree 7		
I. While at	1	2	3	4	5	6	7			
2. While at	1	2	3	4	5	6	7			
3. While at	1	2	3	4	5	6	7			
4. While at	work, I am ch	aritable.		1	2	3	4	5	6	7
5. While at	work, I take c	harge of situations	5.	1	2	3	4	5	6	7
6. While at	l	2	3	4	5	6	7			
	work, I succee	•								
of my ski	lls rather than	hard work or luci	c.	l	2	3	4	5	6	7
•	work, I feel a	t	2	3	4	5	6	7		

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Strongly Agree 1	Agree 2	Slightly Agree 3	Neither Agree nor Disagree 4	Slightly Disagree 5		Disagree 6				Strongly Disagree 7	
1. While at	1	2	3	4	5	6	7				
2. While at	i	2	3	4	5	6	7				
3. While at	ner people.	l	2	3	4	5	6	7			
4. While at	work, I am ch	aritable.	-	I	2	3	4	5	6	7	
5. While at	work, I take c	harge of situation:	5.	i	2	3	4	5	6	7	
6. While at 7. While at	1	2	3			6	7				
of my sk	ills rather than	hard work or luci	c.	1	2	3	4	5	6	7	
8. While at	1	2	3	4	5	6	7				

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			r that best representishment (-10) to Th				scale that
The Most Severe Punishment							The Most Kind Reward
-10 -9	9 -8 -7 -6	-5 -4 -3	-2 -1 0 +1 +	2 +3 +4	+5 +6	+7 +8	+9 +10
	v ethical/unethic esents your opin	-	eve Gene's behavior owing scale:	r was? Pleas	e circle the	number th	at best
Very Ethical 7	Ethical 6	Slightly Ethical 5	Neither Ethical nor Unethical 4	• •		nethical 2	Very Unethical 1
SECTION 4 only.	OF 5: Please of	complete the f	ollowing informati	on that will	be used fo	r classifica	ition purposes
i. Sex: Mai	e Female_	2. Ag	e:				
3. Occupation	n: Accounting _	Human F	Resources M	larketing	Other _		
4. How many	years have you	been employed	d by your current co	ompany?			
5. How many	total years of b	usiness experie	nce do you have?_	6. How m	any people	do you su	pervise?
		•	n from your employ	_		·	_
	• •	•	aight Salary_Strai			v and Con	nmission
9. Which one	of the following	g best describe	s your formal educa	tion? (Please	circle one)	
io. In What C	Country Were Y	ou Born:	11. In '	What Country	Were You	u Raised:	
section. Plea that you have	se indicate if t	he following st section B. If y	the case you read atements refer to a ou are confident in swer.	actual events	s explicitly	described	l in the case
	rity of your con		ts was rising.	Yes		Unsure	
	costs increased of plant capacit		laval	Yes		Unsure	
	aded manageme			ı cs	. 140	Olisule	
•	ses to their custo	•	Part Co 1110	Yes	No	Unsure	
_	reatly increased	•		Yes		Unsure	
	ved a promotion			. Yes	No	Unsure	
7. Gene helpe consumer.	d the company'	s customers be	tter satisfy their end	i Yes	No	Unsure	
	stomers increase	ed their sales.		Yes		Unsure	

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Strongly Agree Agree		Neither Slightly Agree 1 ee Agree Disagre		Slightly Disagree		I	Disag	Strongly Disagree		
1	2	3	4	5 6					7	
1. While a	t work, I am sy	mpathetic to the n	eeds of others.	i	2	3	4	5	6	7
2. While a	1	2	3	4	5	6	7			
3. While a	t work, I need t	he affection of ot	her people.	1	2	3	4	5	6	7
4. While a	t work, I am ch	aritable.	•	I	2	3	4	5	6	7
5. While a	t work, I take c	harge of situation	s.	1	2	3	4	5	6	7
6. While a	1	2	3	4	5	6	7			
7. While a	t work, I succee	ed because								
of my sl	kills rather than	hard work or luc	k.	I	2	3	4	5	6	7
8. While a	ı	2	3	4	5	6	7			

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The Most The Most Severe Kind Punishment Reward

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

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			Neither			
Very		Slightly	Ethical nor	Slightly		Very
Ethical	Ethical	Ethical	Unethical	Unethical	Unethical	Unethical
7	6	5	4	3	2	ı

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The Most Severe Kind Punishment Reward

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			Neither			
Very		Slightly	Ethical nor	Slightly		Very
Ethical	Ethical	Ethical	Unethical	Unethical	Unethical	Unethical
7	6	5	4	3	2	I

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Version 11

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The Most	The Most
Severe	Kind
Punishment	Reward

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

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			Neither			
Very		Slightly	Ethical nor	Slightly		Very
Ethical	Ethical	Ethical	Unethical	Unethical	Unethical	Unethical
7	6	5	4	3	2	i

purposes only. 1. Sex: Male___ Female___ 2. Age: ____ 3. Occupation: Accounting Human Resources Marketing Other 4. How many years have you been employed by your current company? 5. How many total years of business experience do you have? 6. How many people do you supervise?___ 7. What was your approximate compensation from your employer in 1998? 8. How were you compensated in 1998? Straight Salary Straight Commission Salary and Commission 9. Which one of the following best describes your formal education? (Please circle one) A. High School Degree or less B. Some College C. College Graduate D. Graduate Degree (Master or 10. In What Country Were You Born: _____ 11. In What Country Were You Raised: SECTION 4 OF 4: DO NOT look back at the case you read in Section B once you have started this section. Please indicate if the following statements refer to actual events explicitly described in the case that you have just read in Section B. If you are confident in your answer, circle Yes or No. Circle Unsure if you are uncertain about the answer. 1. The popularity of your company's products was rising. Yes ____ No___ Unsure ____ Yes ____ No ___ Unsure ___ 2. Production costs increased. 3. Utilization of plant capacity was at a high level. Yes No Unsure 4. Gene persuaded management to pass only part of the Yes ____ No___ Unsure ____ cost increases to their customers. Yes No Unsure Yes No Unsure 5. Gene has greatly increased profits. 6. Gene received a promotion 7. Gene helped the company's customers better satisfy their end Yes ____ No___ Unsure ____ Yes ___ No___ Unsure ____ consumer. 8. Gene's customers increased their sales.

SECTION 3 OF 4: Please complete the following information that will be used for classification

You Have Completed the Survey. Please Use the Adhesive Proved to Seal the Survey Before Mailing. If you prefer to fax your response, the number is (956)381-2867. Thank You!

Version 12

Dear Business Professional:

The College of Business Administration at the University of Texas-Pan American is exploring how business professionals handle certain kinds of personal problems. Enclosed is a very short questionnaire describing a business event, the possible actions a manager might take in response to the event, and a few demographic questions for classification purposes. It only takes 5 minutes to complete the questionnaire.

Previous research has shown how students respond to the case described in the survey. Student based survey, however, are of little practical use in the business world. Please help us find out how "real world" business professional, like yourself, would respond. The response rate for a survey of this kind is typically quite low so you cooperation will be most appreciated. All individual responses are anonymous and confidential. If you would like to review the results of this study, please go to: http://members.tripod.com/jasonbmacdonald after 1 September, 1999. Sincerely yours,

Jason B. MacDonald

Project Manager, Department of Management/Marketing and International Business

SECTION 1 OF 4: Please read the following short case and then answer the two case related questions.

Gene, a salesperson you supervise, has been one of your top performers over the last several years. Recently, Gene has been telling purchasing agents that rising popularity of the company's product has driven the utilization of plant capacity to a very high level and as a result, the company's production costs have also increased. Gene adds, however, that upper management has been persuaded to pass on only part of these cost increases so that the company's customers can remain competitive. Gene does this even though utilization of plant capacity is actually low. During a recent sales call, however, Gene lost all credibility with a major prospect because the prospect knew through a personal friend that the plant was operating significantly below capacity. From that point, Gene had trouble just getting in to see this prospect and your ability to meet your divisional sales quotas was severely hampered. Furthermore, this selling tactic has, created conflict between the company and its customers as they have been forced to pass on the price increases to the end consumer. This was especially true for the company's smaller customers that have had to absorb a greater portion of the price increase to remain competitive.

SECTION 2 OF 4: Please answer the following questions that refer to the case you have just read.

1. How would you respond to Gene's behavior with respect to punishments or rewards. Please indicate your answer by circling the number that best represents your intention on the following scale that ranges from The Most Severe Punishment (-10) to The Most Kind Reward (+10).

The Mo Severe Punishn																				he Most Kind Reward	
-10	-9	-8	-7	- 6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	

2. How ethical/unethical do you believe Gene's behavior was? Please circle the number that best represents your opinion on the following scale:

			Neither			
Very		Slightly	Ethical nor	Slightly		Very
Ethical	Ethical	Ethical	Unethical	Unethical	Unethical	Unethical
7	6	5	4	3	2	1

SECTION 3 OF 4: Please complete the following information that will be used for classification purposes only. 1. Sex: Male___ Female___ 2. Age: ____ 3. Occupation: Accounting ___ Human Resources ___ Marketing ___ Other ___ 4. How many years have you been employed by your current company?

5. How many total years of business experience do you have? 6. How many people do you supervise? 7. What was your approximate compensation from your employer in 1998? 8. How were you compensated in 1998? Straight Salary Straight Commission Salary and Commission 9. Which one of the following best describes your formal education? (Please circle one)
A. High School Degree or less B. Some College C. College Graduate D. Graduate Degree (Master or 10. In What Country Were You Born: 11. In What Country Were You Raised: SECTION 4 OF 4: DO NOT look back at the case you read in Section B once you have started this section. Please indicate if the following statements refer to actual events explicitly described in the case that you have just read in Section B. If you are confident in your answer, circle Yes or No. Circle Unsure if you are uncertain about the answer. 1. The popularity of your company's products was rising. Yes ____ No___ Unsure __ Yes No Unsure Yes No Unsure 2. Production costs increased. 3. Utilization of plant capacity was at a high level. 4. Gene persuaded management to pass only part of the Yes ____ No___ Unsure ____ cost increases to their customers. Yes _____ No____ Unsure ____ 5. Gene has greatly increased profits.

You Have Completed the Survey. Please Use the Adhesive Proved to Seal the Survey Before Mailing. If you prefer to fax your response, the number is (956)381-2867. Thank You!

Yes ____ No___ Unsure

Yes ____ No ___ Unsure ____ Yes ___ No ___ Unsure ____

6. Gene received a promotion

8. Gene's customers increased their sales.

consumer.

7. Gene helped the company's customers better satisfy their end

Appendix J

Analysis of Non-respondents

The analysis of non-respondents was carried out to assess the generalizability of the findings of the research. Late respondents were used as proxies for non-respondents. The analysis was separated into three groups because of the experimental design of the study. The three groups were: (1) gender-role prime, (2) work-role prime, and (3) no role group. Multivariate analysis of variance was used to determine if the dependent variables differed by the week the surveys were received. The dependent variables were: ethical judgment, intention, age, occupation, experience with present company, total business experience, number of subordinates, salary, type of compensation, education, place born, and place raised. The results of the analysis for group one, group two, and group three are presented in Table L.1, Table L.2, and Table L.3, respectively.

Table L.1 and Table L.2 show that respondents subject to gender-role primes or work-role primes, respectively, did not differ significantly in their ethical judgments, intentions, or individual characteristics. Similarly, subjects that were part of the no role prime group differ significantly in their responses to the ethical judgment and intention measures. Differences in age and the type of compensation of subjects in the no prime group did, however, approach statistical significance (p < .082 and p < .093, respectively). It is not clear if these differences were because of the sample size.

The results of the analysis for any of the three prime conditions suggest that there were no significant differences in subjects' responses and their individual characteristics based on when they responded to the survey. From these results, it can be inferred that there were no significant differences between those subjects that responded to the survey and the non-respondents.

Table J.1

Summary of Multivariate Analysis of Variance for Respondent Differences Based on the Week the Survey was Returned for the Gender-role Prime Group

Source	Dependent Variable	df	F	Sig.
Week	Ethical Judgment	4	1.411	.238
	Intention	4	1.401	.241
	Age	4	.485	.746
	Occupation	4	.296	.880
	Experience with company	4	.069	.991
	Total business experience	4	.803	.527
	Number of Subordinates	4	.397	.810
	Salary	4	.428	.788
	Type of compensation	4	1.759	.145
	Education	4	.715	.584
	Place of birth	4	.374	.827
	Place raised	4	.168	.954
Error	Ethical Judgment	80		
	Intention	80		
	Age	80		
	Experience with company	80		
	Total business experience	80		
	Number of Subordinates	80		
	Salary	80		
	Type of compensation	80		
	Education	80		
	Place of birth	80		
	Place raised	80		

Table J.2

Summary of Multivariate Analysis of Variance for Respondent Differences Based on the Week the Survey was Returned for the Work-role Prime Group

Source	Dependent Variable	df	F	Sig.
Week	Ethical Judgment	4	1.277	.283
	Intention	4	.706	.621
	Age	4	.675	.644
	Occupation	4	.789	.561
	Experience with company	4	1.665	.153
	Total business experience	4	.668	.649
	Number of Subordinates	4	1.848	.113
	Salary	4	.995	.426
	Type of compensation	4	.418	.835
	Education	4	1.593	.172
	Place of birth	4	.498	.777
	Place raised	4		
Error	Ethical Judgment	77		
	Intention	77		
	Age	77		
	Experience with company	77		
	Total business experience	77		
	Number of Subordinates	77		
	Salary	77		
	Type of compensation	77		
	Education	77		
	Place of birth	77		
	Place raised	77		

Table J.3

Summary of Multivariate Analysis of Variance Results for Respondent Differences Based on the Week the Survey was Returned for the No Role Prime Group

Source	Dependent Variable	df	F	Sig.
Week	Ethical Judgment	4	1.499	.211
	Intention	4	1.167	.333
	Age	4	2.163	.082
	Occupation	4	.712	.586
	Experience with company	4	.447	.774
	Total business experience	4	.653	.626
	Number of Subordinates	4	.147	.964
	Salary	4	1.503	.210
	Type of compensation	4	2.075	.093
	Education	4	1.702	.159
	Place of birth	4	.206	.934
	Place raised	4	.330	.857
Error	Ethical Judgment	73		
	Intention	73		
	Age	73		
	Experience with company	73		
	Total business experience	73		
	Number of Subordinates	73		
	Salary	73		
	Type of compensation	73		
	Education	73		
	Place of birth	73		
	Place raised	73		

Appendix K

Role-Prime Factor Analysis Results for the Mail Survey Data

Factor analysis was used to investigate if the dimensions of the role primes were consistent with that theorized. Ideally, each prime would contain an agentic and communal dimension. The gender-role prime and the work-role prime were analyzed separately. The rotated solutions for each primes are summarized in Table K.1 and Table K.2 for the gender-role prime and the work-role prime, respectively.

The factor analysis of the gender-role prime revealed a two-factor solution. The first factor was considered to represent communion. The internal consistency of this measure, assessed using Cronbach's α , was .70. This level of reliability is considered sufficient for exploratory research (Nunnally, 1978). The second factor was considered to represent agency. Cronbach's α for this factor was .46. This level of reliability is below the level deemed appropriate for this level of research. The two factors captured almost 50% of total explained variance.

The results of the factor analysis for the work-role prime revealed a three, rather than a two, factor solution. The first factor was considered to represent the communion factor and had a Cronbach's α of .73. Three of the items in this factor were consistent with the first three items in the communion factor identified in the factor analysis of the gender-role prime. The second factor contained items dealing with affection and competition and was considered to represent agency. The Cronbach's α for this item was .64. The third factor included only one item and consequently, its Cronbach's α could not be calculated items that dealt with being in charge and how subjects' explained their success.

Two important differences between the factor loadings for the gender-role prime and the work-role prime. The first is the loading of item E "I take charge of situation" on the communion factor and the second is loading of item F "I openly express my affection for others" on the agency prime in the analysis of the work-role prime. These items were a priori expected to load on the opposite factors. It is possible that this outcome resulted from work roles not having as clearly defined dimensions as gender roles. It was also possible that some of the items were confusing, such as the item that dealt with the expression of affection for other while at work. A few subjects actually noted on their returned surveys that this statement was inappropriate. The results of this analysis would suggest that future research in this area needs to focus on developing more refined work-role primes.

Table K.1

Factor Loadings for the Four Factor Solution for the Final Gender-Role Prime

Item	Factor 1	Factor 2
A. I am sypathetic to the needs of others.	.753	
B. I share with others.	.777	
D. I am charitable.	.729	
F. I openly express my affection for others.	.679	
C. I need the affection of others.		.624
E. I take charge of situations.		.386
G. I succeed because of my skills rather than hard work or luck.		.655
H. I feel a need to openly compete against others.		.688
Eigen Values	2.529	1.503
Cumulative % of variance	31.616	49.154
Cronbach's α	.70	.46

1 Varimax Rotation with Kaiser Normalization was used as the extraction method.

Factor Loadings for the Three Factor Solution for the Final Work-Role Prime

Table K.2

Item	Factor 1	Factor 2	Factor 3
A. I am sypathetic to the needs of others.	.805		
B. I share with others.	. 7 69		
D. I am charitable.	.711		
E. I take charge of situations.	.622		
C. I need the affection of others.		.845	
F. I openly express my affection for others.		.823	
H. I feel a need to openly compete against		.614	
others. G. I succeed because of my skills rather than hard work or luck.			.844
Eigen Values	2.276	1.907	1.165
Cumulative % of variance	28.451	52.292	66.857
Cronbach's α	.73	.64	

I Varimax Rotation with Kaiser Normalization was used as the extraction method.

Jason B. MacDonald

Curriculum Vitae

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EDUCATION

Doctorate of Philosophy in Business Administration, University of Texas-Pan American, Edinburg, Texas, May 2000. Double Major: International Business and Marketing.

Doctoral Internship, Universidad Popular Autonoma del Estado de Puebla, Mexico, Summer 1997.

Collected data from Mexican students for two research projects.

Master of Business Administration, University of New Brunswick, Fredericton, New Brunswick, Canada, 1994.

Master of Business Administration Internship, Kopalnia Wegla Brunatnego Konin, Konin, Poland, 1993. Member of a four person group that advised a large state owned coal mining company on its privatization activities.

Bachelor of Business Administration, University of New Brunswick, Fredericton, New Brunswick, Canada, 1992. Double Major in Administration and Economics.

AREAS OF TEACHING INTEREST

Marketing management, sales management, consumer behavior, international marketing, marketing theory, international business, ethics, multivariate analysis, and research design.

AREAS OF RESEARCH INTEREST

Social role activation and ethical decision making in sales management, information processing in e-commerce, fairness and ethics, and the consumer behavior of Internet users.

RESEARCH PROGRAM

Dissertation

"Explicating Sex Differences in Marketing Managers' Egoist Versus Utilitarian Ethical Orientations: The Effects of the Enactment of Agentic Versus Communal Social Roles."

Refereed Journal and Conference Proceedings Articles

Cabezas, Veronica & Jason B. MacDonald (1999), "Hysteresis and the Earnings of Immigrants in the United States Labor Market," *Applied Economics*, 31, 1171-1182.

MacDonald, Jason B. (2000), "Analyzing the Effects of Egoist and Utilitarian Evaluations on Subjects' Responses to (Un)Ethical Sales Person Behavior," accepted for presentation and publication at the *Academy of Marketing Science Conference*, May 24-27, Montreal, Canada.

MacDonald, Jason B. & Elsa Nydia MacDonald (1999), "Gender Differences in Information Processing: Retesting the Selectivity Hypothesis," in Anil Menon and Arun Sharma (Eds.), 1999 AMA Winter Marketing Educators' Conference: Vol. 10. Marketing Theory and Applications (pp. 23-29). Chicago: American Marketing Association.

MacDonald, Jason B. & Elsa Nydia Madrigal (1998), "Gender Differences In Information Processing Strategies In a Mexican Sample: An Exploratory Study," in Dhruv Grewal and Connie Pechmann (Eds.), 1998 AMA Winter Educators' Proceedings: Vol. 9. Marketing Theory and Applications (pp. 351-357). Chicago: American Marketing Association.

Madrigal, Elsa Nydia & Jason B. MacDonald (1998), "Dowie and Associates," in Daniel F. Jennings (Ed.), 1998 Southwest Case Research Association Proceedings: Vol. 7. (p. 16). College Station, TX: Texas A&M University.

MacDonald, Jason B. (1997), "Gender Differences in the Perception of Sex Role Portrayals in Advertising: An Analysis of Sex Role Portrayals as Schema Incongruent Message Cues," in William M. Pride and G. Tomas M. Hult (Eds.), 1997 AMA Educators' Proceedings: Vol. 8. Enhancing Knowledge Development in Marketing (pp. 299-305). Chicago: American Marketing Association.

MacDonald, Jason B., Victor Davila, and Tina Cazares (1997), "Equivalence Problem in Cross-National Research: An Analysis of JIBS Articles 1985-1995," in Jane Lemaster (Ed.), *Proceedings of the 1997 Academy of International Business Southwest Regional Meeting* (pp. 79-88). New Orleans: Academy of International Business.

MacDonald, Jason B. (1997), "Hysteresis in the Earnings Function: An Analysis by Union Membership, Race, and Job Sector," Western Social Science Association 39th Annual Conference Abstracts (p. 129). New Mexico: Western Social Science Association.

Presentations

MacDonald, Jason B. (1999), "Egoist and Utilitarian Consequences and their Effects of Ethical Judgements and Intentions," School of Business, The University of Texas at Brownsville and Texas Southmost College (19 January meeting).

MacDonald, Jason B., Elsa Nydia Madrigal, and Pilar Iguiniz (1998), "Gender Differences in Information Processing: A Replication and Extension of the Selectivity Hypothesis," 1998 Business

Association of Latin American Studies Conference. South Padre Island, TX. Abstract published in the proceedings.

MacDonald, Jason B. and Elsa Nydia Madrigal (1998), "Promoting Your Product in Mexico: Recommendations for Small Canadian Firms in The Dark About Mexican Advertising Laws," 1998 Business Association of Latin American Studies Conference. South Padre Island, TX. Abstract published in the proceedings.

Cabezas, Veronica and Jason B. MacDonald (1998), "Hysteresis and the Earnings of Immigrants in the United States Labor Market," accepted for presentation at the 1998 Western Social Science Association 40th Annual Conference. Denver, Colorado. Received an honorable mention for best student paper.

TEACHING EXPERIENCE

Boise State University, Boise, IdahoAssistant Professor of Marketing, Fall 2000-

The University of Missouri-Columbia, Columbia, Missouri

Visiting Assistant Professor, 1999-2000

Courses Taught: Consumer Behavior and Managerial Marketing (graduate).

The University of Texas at Brownsville and Texas Southmost College, Brownsville,

Texas

Lecturer, 9/1998-7/1999

Courses Taught: Consumer Behavior (undergraduate and graduate), Principles of Marketing, Promotion Management, International Business (undergraduate and graduate), Introduction to Business, Sales Management and Personal Selling.

The University of Texas-Pan American, Edinburg, Texas

Teaching Assistant, 9/1995-to 8/1998.

Courses Taught: Sales Management (three sections), Principles of Marketing (three sections), Introduction to Business (seven sections).

Memorial University of Newfoundland, Corner Brook, Newfoundland, Canada

School of Commerce, Economics Instructor, 1995.

Course Taught: Principles of Micro Economics.

Westviking College, Stephenville, Newfoundland, Canada

Economics Instructor, 1994.

Courses Taught: Micro Economic Principles and Macro Economics Principles.

The University of New Brunswick, Fredericton, New Brunswick, Canada Graduate Assistant, 1993.

PRIVATE SECTOR EXPERIENCE

Indian Head Tire Ltd., Stephenville, Newfoundland, Canada

Manager, 1994-1995.

Responsible for all planning, purchasing, marketing, accounting, and sales duties at a newly established wholesale and retail tire dealership.

Elblaskie Zaklady Energetyczne S.A., Elblag, Poland

Strategic Management Consultant, 1994.

Conducted a review of the computer systems used by the accounting, finance, and economic departments of a large state owned power station and made recommendations for improving the use of information technology.

Lubelskie Przedsiebiostwo Robot Telekomunikacyjna S.A., Lublin, Poland Strategic Management Consultant, 1994.

Performed a strategic audit on a medium sized telecommunications servicing company.

Gave recommendations on how the company could alter their strategy so that it better serve the demands of the market.

Southwest Trucking Ltd., Stephenville, Newfoundland, Canada Supervisor, 1992.

Duties involved financial planning, accounting, and supervising employees at a heavy equipment garage.

ACADEMIC AWARDS AND HONORS

Research Fellow, University of Texas-Pan American, 1997-1998.

International Student Fee Scholarship, University of Texas-Pan American, 1997. Awarded for study in Mexico.

Research Fellow, University of Texas-Pan American, 1996-97.

Dean's Honor List, M.B.A., University of New Brunswick, 1994.

Hewlett Packard Award, University of New Brunswick, 1993. Awarded for the highest first year GPA in the M.B.A. program.

Ethel P. Singer Bursary, University of New Brunswick, 1993. Based on academic achievement in the second year of M.B.A. program. Graduate Assistant, University of New Brunswick, 1993.

Dean's List, B.B.A., University of New Brunswick, 1992.

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

American Marketing Association Academy of Marketing Science Association for Consumer Research

PROFESSIONAL SERVICE

Reviewer for the 2000 Academy of Marketing Science Conference

Reviewer for the 2000 AMA Winter Educators' Conference

Intellectual Contribution Committee, Business Administration Department, University of Texas at Brownsville, 1999.

Member of the Graduate Faculty Committee, Business Administration Department, University of Texas at Brownsville, 1998-1999.

Reviewer for the 1999 Academy of Marketing Science Conference

AACSB Accreditation Team Member, University of Texas-Pan American, 1998. Member of the Undergraduate Curriculum Content and Evaluation Committee

Reviewer for The Social Science Journal, 1997.

Journal for the Western Social Sciences Association

AACSB Accreditation Team Member, University of Texas-Pan American, 1996. Member of the Doctoral Curriculum Content and Evaluation Committee