DALE L. LUNSFORD

ETHICAL JUDGEMENTS: DOES GENDER MATTER?

(Accepted August 5 1999)

ABSTRACT. A number of studies have addressed the question, "Who is more ethical, men or women?" Using ethical judgement as a measure of how ethical a person is, some studies have found that women are more ethical while other studies have found no differences between the sexes. This study investigates the influences that a character's gender, the evaluator's gender, and the interaction between the two genders have on ethical judgements. We conducted an experiment where subjects (evaluators) read a scenario that described an action taken by a character. We found some evidence to suggest that both women and men apply gender-based double standards when making ethical judgements. The widest gap in ethical judgement occurred between the female evaluator/male character group and the male evaluator/male character group. Consistent with prior research, we found that female evaluators made ethical judgements more consistent with those of experts.

KEY WORDS: double standard, ethical judgement, ethics, gender, information systems

INTRODUCTION

Questions of ethics arise frequently in business and especially in information systems today (e.g., Betts, 1993; Harrington, 1995; King, 1995; Betts, 1995). As a result, people often must make ethical judgements about others' actions. Robin and Babin (1997) described ethical judgement as the conclusion that an evaluator reaches regarding the ethicality of an action. Ethical judgements occur within a context. One person (the character) engages in an action. A second person (the evaluator) must make a judgement as to whether or not the character's action was ethical. It may be that the character's action was ethically correct even though it caused harm to another person or organization; however, that determination is generally made after the fact by the evaluator based on the evaluator's personal ethical system. There is the possibility that gender, age, race, appearance, or other demographic characteristics may influence an evaluator's ethical judgement. It is important to understand how these demographic characteristics, both on the part of the character and on the part of the evaluator, affect the ethical judgement rendered. Of particular interest in contemporary ethics research is the role that gender plays (e.g., Sparks...
and Johlke, 1996; Mason and Mudrack, 1996; Smith and Oakley, 1997; Schminke, 1997; Prasad et al., 1998). Research results regarding the role of gender have been equivocal. In an attempt to better understand the role that gender plays in ethical judgements, this paper explores the impact of the character’s gender and the evaluator’s gender on the evaluator’s ethical judgement.

This paper is organized as follows. The next section discusses ethical systems and prior research in the area of gender and ethical judgements. The third section describes the research design employed in this study. The fourth section provides an analysis of the results from this study and the implications of these findings. The final section provides concluding comments and discusses possible extensions to this study.

ETHICAL SYSTEMS AND GENDER RESEARCH

An ethical system attempts “to establish some analytical method to classify our actions as ‘right’ or ‘wrong’” (Hosmer, 1987). Hosmer summarizes five ethical systems: Eternal Law, Utilitarianism, Universalism, Distributive Justice, and Personal Liability. The Eternal Law ethical system is based on the belief that there is some higher power that has preordained right and wrong, and that actions must be evaluated based on this higher power’s laws (Hosmer, 1987). Utilitarianism (a teleological perspective) focuses on the consequences of an action. For an action to be ethical under Utilitarianism, it must produce a greater net benefit to society than any other possible action given the circumstances (Hosmer, 1987; Macdonald and Beck-Dudley, 1994). Universalism (a deontological perspective) focuses on the intentions of the person engaging in an action. For an action to be ethical under Universalism, the intention of the person engaging in the action must be based on some personal duty that is universal (Hosmer, 1987; Macdonald and Beck-Dudley, 1994). Distributive Justice focuses on the distribution of benefits within society. Distributive Justice is based on the concept of conditional inequality. Differences in the distribution of benefits must be justified and result in compensating benefits for everyone (Hosmer, 1987). Personal Liberty places an emphasis on liberty and the exchange of goods to encourage cooperation. Essentially Personal Liberty focuses on the distribution of benefits through voluntary transfers. Nonvoluntary transfers are considered unjust regardless of the means (Hosmer, 1987). Although there are some common principles that underlie the five ethical systems, according to Hosmer the five ethical systems cannot be reconciled into a single ethical system since there are potential conflicts due to differing priorities asso-
associated with the various systems. Hosmer also stresses the importance of recognizing that individuals may adopt different rational ethical systems. As a result, one person may make one ethical judgement about an action and another person may make a very different ethical judgement about the same action based on the individuals' dominant ethical systems.

In recent years a subject of frequent debate has been the difference in moral development of females versus males, and the impact these differences have on the behaviors and judgements of men and women (Krebs and Vermeulen, 1994; Dawson, 1995; Thompson, 1995; Mason and Mudrack, 1996; Dawson, 1997; Schminke, 1997). The foundations for this debate are Kohlberg's (1969) cognitive moral development model and Gilligan's (1982, 1983) ethic of care. The cognitive moral development model characterizes moral development as a sequential progression from one less-evolved stage to a more evolved stage. Kohlberg's cognitive moral development model consists of three levels of moral development divided into six stages (Kohlberg, 1969; Thompson, 1995). A person functioning at the pre-conventional level acts out of obedience or fear of punishment (stage one) or because of a perceived fairness of exchange (stage 2). A person functioning at the conventional level acts to avoid conflict (stage 3) or conform to rules for the betterment of society and to show respect for authority (stage 4). A person functioning at the post-conventional level acts because of the belief that meeting contractual obligations benefits all persons (stage 5) or out of a duty to universal moral principles (stage 6). Kohlberg's model is characterized as having a justice orientation where persons functioning at higher levels do so out of a respect for contracts, laws, and objective standards of behavior (Thompson, 1995). Gilligan (1982, 1983) argues that Kohlberg's model is limited because of its justice orientation. According to Gilligan, men generally focus on rights and rules when evaluating ethics issues while women generally focus on relationships and responsibilities. Because Kohlberg's model places greater emphasis on abstract standards of behavior, it may be biased toward men. Gilligan proposed that a different approach oriented toward relationships and caring can be used to evaluate ethical situations. The ethic of care consists of three modes (Gilligan, 1983). A person in the first mode of development focuses on selfish interests and sees others as a means of getting what she or he desires. A person in the second mode of development considers the needs of others and strives to avoid hurting those that he or she cares about. A person at the third mode places a primary emphasis on maintaining relationships by reducing conflict through communication. Gilligan argues that females are taught to value relationships and caring while males are taught to value justice and rights. From this, gender differ-
ences in ethical judgements may be a result of differences in how men and women perceive situations and what they value most.

Prior empirical research regarding the influence that the character's demographic characteristics and the evaluator's demographic characteristics have on ethical judgements is equivocal. In some studies examining ethical judgements, researchers have found that men are less critical of unethical behaviors than are their female counterparts (e.g., Giacalone et al., 1988; Akaah, 1989; Kohut and Corriher, 1994; Sparks and Johlke, 1996). Other studies have not found significant differences based on gender (e.g., McNichols and Zimmerer, 1985; Davis and Welton, 1991). Still a third set of studies have found mixed results where men were sometimes less critical of unethical behaviors, sometimes equally critical, and sometimes more critical than their female counterparts, depending on the situation (e.g., Harris, 1990; Mason and Mudrack, 1996; Smith and Oakley, 1997; Schminke, 1997). Robin and Babin (1997) examined a number of ethical-judgement studies and concluded "results do not overwhelmingly provide evidence that females are more ethical than males." Even with the body of literature that exists, the question still remains, does gender matter?

RESEARCH DESIGN

Research Questions

In an attempt to better understand the roles that gender plays in ethical judgements, we conducted an experiment to assess the impact of gender on ethical judgement. The primary goal of this experiment was to assess the impact that the character’s gender and the evaluator’s gender have on ethical judgements. We addressed three questions related to ethical judgements.

- Does the character’s gender influence the evaluator’s ethical judgement?
- Does the evaluator’s gender influence the evaluator’s ethical judgement?
- Does the interaction between the character’s gender and the evaluator’s gender influence the evaluator’s ethical judgement?

To address these research questions, we constructed a research design with two main effects, character gender and evaluator gender, and one interaction effect, the cross between character gender and evaluator gender. We were particularly interested in ethical judgements in situations where
ETHICAL JUDGEMENTS

evaluators must judge characters of the other gender. Although we could not assign a gender to the evaluator, we implemented our research procedures so that we had approximately the same proportion of men and women judging male and female characters.

Questionnaire

Parker (1979) and Parker et al. (1990) developed a number of scenarios that arise in the information systems and computer science settings. Each of these scenarios describes an action taken by a character and asks the evaluator to indicate whether or not the action was ethical. Parker (1979) had experts in a variety of fields evaluate the scenarios to determine if the character’s behavior described in each scenario was ethical or unethical. Based on this, Parker identified a “degree of unethicalness” scale for each scenario (Khazanchi, 1995). Athey (1993) and Khazanchi (1995) used several of Parker’s scenarios in studies to assess differences in ratings based on the gender of the evaluator. Four scenarios used by Athey (1993) dealt with ethics in a software development setting, one scenario dealt with hacking, one scenario dealt with data mining and junk mail, and the seventh scenario dealt with workplace monitoring. Khazanchi’s (1995) scenarios addressed the release of proprietary information during a job search, the accuracy of computer models, giving proper credit to others for work done, software development, the failure to report fraud, software piracy, and hacking. Based on the pool from which we were going to draw our subjects, we knew that the majority of our subjects would not come from technical backgrounds. As a result, we felt that Khazanchi’s subset of scenarios more closely matched the issues that our subjects might realistically encounter. As a result, we used Khazanchi’s seven scenarios in our study. The seven scenarios selected by Khazanchi were judged to be unethical by Parker’s experts.

Khazanchi (1995) presented the scenarios using predominantly masculine pronouns to refer to the character engaged in an action; Khazanchi used feminine pronouns for scenario one and scenario four was gender-neutral. For each scenario, we created a female version and a male version. The only difference between the versions was that we referred to the characters in the female version using feminine pronouns and the characters in the male version using masculine pronouns. We held all other information constant. We include copies of the female scenarios in the appendix.

We asked the subjects to rate the behavior of a specified character in each scenario using a seven-point Likert scale. A rating of one indicated that the subject felt the character’s behavior was absolutely unethical and
a rating of seven indicated that the subject felt the character’s behavior was absolutely ethical. This rating scale is the reverse of the scale used by Khazanchi (1995). We made this change after conducting a pilot test (with 32 subjects) using Khazanchi’s scale and our scale. We found that there were no significant differences between subjects based on the scale employed; however, in interviews with the pilot-test subjects, the subjects indicated a higher level of comfort with the scale that rooted unethical behavior at the low end.

**Factors**

In this study, we used both male and female subjects as evaluators. We also used scenarios with male and female characters. Unfortunately, due to the combinatorial explosion problem, it is not feasible to develop a set of questionnaires with every possible pairing of male and female characters. Because of this, we elected to use two questionnaires; one with male characters only and one with female characters only. We provided each subject with a questionnaire that contained either all female scenarios or all male scenarios. This resulted in four different treatment groups based on the gender of the evaluator and the gender of the character. Table I summarizes the four treatment groups.

**Predictions**

Our three research questions deal with the role that gender plays in ethical judgements. We focus on the gender of the character in a scenario, the gender of the evaluator, and the interaction between the character’s gender and the evaluator’s gender. There is little information in the literature to allow us to make a prediction about how the character’s gender influences an evaluator’s ethical judgement. Prior studies often have employed gender-specific instruments typically using male characters with minimal use of female characters, or predominantly gender-neutral instruments with some references to male characters (e.g., Akaah, 1989; Harris, 1990;
Kohut and Corriher, 1994; Khazanchi, 1995; Smith and Oakley, 1997). Based on the absence of information to enable us to make a directional prediction, we hypothesize that character gender will not influence the evaluator’s ethical judgement.

Recent studies have found evidence to suggest that female evaluators make ethical judgements more in line with experts’ assessments of the situation (e.g., Athey, 1993; Khazanchi, 1995). Experts have judged the scenarios in our instrument to reflect unethical behavior on the part of the characters (Khazanchi, 1995). Based on prior research results, we expect the female evaluators’ ethical judgements to be more in line with the experts’ ethical judgements than male evaluators’ assessments. As a result, we expect the female evaluators to view the characters’ actions as more unethical than do the male evaluators.

A gender-based double standard exists when people perceive an act performed by a one person as either more wrong or less wrong than the same act performed by another person based solely on the gender of the actors. Assuming that a gender-based double standard exists in the evaluation of the ethics of behaviors, we expect to find that our evaluators judge the behaviors of male and female characters differently. Specifically, we expect the female evaluators given male scenarios to judge the behaviors of the characters as more unethical than do the female evaluators given female scenarios. Also, we expect the male evaluators given female scenarios to judge the behaviors of the characters as more unethical than do the male evaluators given male scenarios.

**Experiment**

We conducted an experiment to test the predictions stated above. As part of this study, we conducted several experiment sessions using students recruited from an introductory business course.

**Subjects**

We recruited the subjects for this study from an “Introduction to Information Systems” course at an average-size, public university. The College of Business Administration requires all business students to take this course. In addition, this course draws students from some other majors. Generally less than two percent of students in this course come from technical majors including computer science and computer technology programs. Students take this course after completing a set of core business courses including introductions to Accounting, Economics, and basic business software tools. All students taking this course were juniors and seniors with a minimum grade point average of 2.0. The average age of male
subjects was 22.18 and the average age of female subjects was 23.16. The difference in ages was not significant. The subjects were drawn from all sections of the course taught by several different faculty members during the fall semester.

Although a significant topic in this course is ethics, we conducted this experiment early in the semester to avoid confounding the results of the study with material that the students might obtain from the discussion of ethics in the course. Subjects who volunteered to participate in the study received extra credit in the course. To maximize participation in this study and avoid contamination of the subject pool due to discussion of the experiment by subjects, students participating could attend one of several sessions conducted during one specific week of the semester. A total of 147 subjects participated in the study; however, one of the subjects failed to complete the entire questionnaire. Because of this, we did not include this subject's data in the subsequent analysis. In addition, several subjects did not show up for their experiment session resulting in a slightly different number of subjects in each treatment group. Table II summarizes the number of subjects in each treatment group.

### TABLE II

<table>
<thead>
<tr>
<th>Character</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>43</td>
<td>36</td>
<td>79</td>
</tr>
<tr>
<td>Female</td>
<td>36</td>
<td>32</td>
<td>68</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>67</td>
<td>146</td>
</tr>
</tbody>
</table>

**Experiment procedures**

To ensure anonymity of results while still providing students with credit for participation, each subject signed in to the experiment room by writing his or her name and student identification number on an index card and dropping the index card in a small box. At the scheduled start of the experiment session, the experiment proctor distributed the questionnaire face down and instructed the subjects to not look at their questionnaires until told to do so. Once each subject had a questionnaire, the proctor directed the subjects to turn their questionnaires over but not to begin work. The proctor then read the experiment instructions to the subjects and assured the subjects that their responses would be anonymous. The subjects then
completed the questionnaires; based on the results from the pilot study, the questionnaire included all instructions necessary to complete the questionnaire. Subjects required between 15 and 25 minutes to complete the entire questionnaire. As each subject completed the questionnaire, he or she placed the questionnaire in a large box and left the experiment room.

### ANALYSIS OF RESULTS

**Statistical Model**

Since our primary interest is the roles that character gender and evaluator gender play in the ethical judgement of the character’s behavior, we employed a basic analysis of variance (ANOVA) model with two main effect terms and one interaction term. Our statistical model is as follows:

\[
\text{[Rating]} = \text{CharGend} + \text{EvalGend} + \text{CharxEval} + \text{error}
\]

Each subject rated how ethical a specified character’s behavior was in seven different scenarios. We can evaluate the differences in rating for each individual scenario (S1 through S7) and also for all scenarios summed (Uneth). Because of this, [Rating] represents either the sum of the ratings for the scenarios by a subject or the individual rating for a specific scenario by a subject, depending on our level of analysis. We coded gender using a one to represent female and a zero to represent male. Table III shows our coding scheme for each treatment group.

Based on this coding scheme, the CharGend variable captures the main effect associated with the character gender manipulation. The EvalGend variable captures the main effect of evaluator gender on the ethical judgement. The CharxEval variable captures the effect of an interaction between evaluator gender and character gender. We used the Analysis of Variance
technique to test the significance of these terms for each of the seven scenarios and the aggregation of the scenarios.

**Summary of Results**

As previously discussed, for a particular scenario a rating of one on our scale indicated that a subject felt the character’s behavior was absolutely unethical. A rating of one on Khazanchi’s (1995) scale indicated that a subject felt the character’s behavior was absolutely ethical. To maintain consistency with Khazanchi’s (1995) presentation of findings, we transformed our subjects’ ratings to match Khazanchi’s scale prior to statistical analysis. As a result, for an individual scenario, a high rating (e.g., 7) indicates that the evaluator perceived the character’s behavior as very unethical. In aggregate, a high rating (e.g., 49) indicates that the evaluator perceived all of the characters’ actions as very unethical. Table IV summarizes the Analysis of Variance results using the General Linear Model method. The coefficients in Table IV are from Regression analyses using the same models.

At the aggregate level, the evaluator gender term is weakly significant (p-value < 0.10). The positive coefficient on this term indicates that female evaluators rated the actions of the characters as more unethical than did male evaluators. Two individual scenarios show significant terms. For scenario one, the character gender term is significant (p-value < 0.05) and the evaluator gender term is weakly significant (p-value < 0.10). The positive coefficient on the character gender term indicates that subjects given a female scenario rated the actions of the character as more unethical than did subjects given a male scenario. In other words, the same behavior by a female subject was viewed as more unethical. The positive coefficient on the evaluator gender term indicates that female evaluators rated the behavior of the character as more unethical than did male evaluators. For scenario five, the evaluator gender term is weakly significant (p-value < 0.10). The positive coefficient on this term indicates that female evaluators rated the behavior of the character as more unethical than did male evaluators.

**Discussion**

Our first two predictions deal with the main effects associated with the character gender and the evaluator gender. To aid in the discussion of these predictions, Table V summarizes the means and standard deviations for the aggregate measure (Uneth) and the seven individual scenarios (S1 through S7). Figure 1 and Figure 2 graphically depict the main effects of the character gender and evaluator gender variables on the overall measure.
We predicted that character gender would not influence the evaluator's ethical judgement. As shown in Table IV, at the aggregate level the character gender variable is not significant (p-value = 0.239). Figure 1 confirms this result; there is only a small positive slope for the character-gender main effect line. As a result, we conclude that character gender had no influence on the overall ethical judgement.

We predicted that the female evaluators would view the characters' actions as more unethical than would the male evaluators. At the aggregate.
TABLE V

Summary of mean results (mean and standard deviation)

<table>
<thead>
<tr>
<th>Uneth</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
<th>S7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>33.568</td>
<td>5.370</td>
<td>4.894</td>
<td>5.527</td>
<td>4.185</td>
<td>5.062</td>
<td>4.719</td>
</tr>
<tr>
<td>Mc/Fe</td>
<td>34.600</td>
<td>5.543</td>
<td>4.657</td>
<td>5.571</td>
<td>4.657</td>
<td>5.400</td>
<td>5.029</td>
</tr>
</tbody>
</table>

Figure 1. Main effects plots for character gender.

level the evaluator gender variable is weakly significant (p-value = 0.060) with a positive coefficient indicating that female evaluators did rate the characters’ behaviors as overall more unethical than did male evaluators. Figure 2 confirms this result; the slope for the evaluator-gender main effect line is much steeper than for the character-gender main effect line; this reflects the fact that the evaluator gender is significant and the character
ETHICAL JUDGEMENTS

Figure 2. Main effects plot for evaluator gender.

The gender variable is not. As a result, we conclude that the female evaluators' assessments were more consistent with the experts' assessments than were the male evaluators' assessments.

For scenario one, character gender is significant (p-value = 0.032) with a positive coefficient indicating that the evaluators perceived the same act by females as less ethical than by males. Also, evaluator gender is weakly significant (p-value = 0.055) with a positive coefficient indicating that female evaluators viewed the action as less ethical than did male evaluators. Since the character's action in scenario one is based on a desire to obtain a new job, the evaluators may have viewed the character as engaging in a selfish behavior. Based on the ratings across groups, male evaluators showed the greatest difference in their evaluations based on the character's gender. Males rated the same act by females as less ethical than by males. Although prior research has shown that females are more inclined to object to self-interested behaviors (Harris, 1990), our result indicates that male evaluators were bothered more by the self-interested behavior in this scenario when exhibited by females. This result merits additional study. Evaluator gender is also weakly significant for scenario five (p-value = 0.062). Scenario five involves the failure to report fraud and the intentional avoidance of knowledge about this fraud. Additionally, scenario five states that the character was not prosecuted for her or his actions. One assertion in the literature is that men adopt a justice orientation in determining the ethicality of an action (Gilligan, 1982, 1983). Since the character in this scenario was not prosecuted, this may have led men evaluators to conclude that the action was ethical. Like other gender and
ethics issues, results in the research of justice versus caring orientation are equivocal (Krebs and Vermeulen, 1994; Smith and Oakley, 1997). Once again, there is a need for further research in this area.

Our final two predictions deal with the interaction between character gender and evaluator gender. Although none of the occurrences of the interaction term (CharxEval) in Table IV are significant, it is useful to look at the interaction between the character gender and evaluator gender graphically since we are using two indicator variables in our statistical models. Figure 3 shows the difference in the aggregate rating by character gender as a function of evaluator gender. Figure 4 shows the difference in the aggregate rating by evaluator gender as a function of character gender. Although these two plots show the same underlying information, it is useful to look at both plots as they show this information from different points of view.

Figure 3 shows that the slope of the male-characters line (solid line) is steeper than the slope of the female-characters line (dashed line). This indicates that there is a greater difference in the aggregate rating between male and female evaluators for male characters than for female characters. Figure 4 shows that the male evaluators’ aggregate ratings for both male and female characters are lower than the female evaluators’ ratings. This indicates that male evaluators rated the behaviors as more ethical than did the female evaluators. Figure 4 also highlights the fact that the difference in ratings between male and female evaluators is smallest for female characters (and largest for male characters).

We predicted that the female evaluators given male scenarios would judge the behaviors of the characters as more unethical than would the
female evaluators given female scenarios. The negative slope on the female-evaluators line in Figure 4 (dashed line) indicates that female evaluators given male scenarios viewed the behaviors of the characters as less ethical than did female evaluators given female scenarios. We also predicted that the male evaluators given female scenarios would judge the behaviors of the characters as more unethical than would the male evaluators given male scenarios. The positive slope on the male-evaluators line in Figure 4 (solid line) indicates that male evaluators given female scenarios viewed the behaviors of the characters as less ethical than did male evaluators given male scenarios. Both of these findings provide some evidence to suggest that double standards do apply in ethical judgments.

Implications
The most significant finding of this study is that an evaluator’s ethical judgement is at least partly dependent on the gender of the character being evaluated. From a practical standpoint, this means that people in a position to evaluate the ethics of behaviors must be cognizant of potential gender biases when evaluating a person of the other gender. From a research standpoint, this finding is cause for concern when examining research results. It is common for ethics researchers to employ scenarios to assess subjects’ ethical judgements. In many cases, the researchers have used scenarios with predominantly male characters (e.g., Kohut and Corriher, 1994; Khazanchi, 1995; Smith and Oakley, 1997) and drawn conclusions about gender differences on the part of their subjects. Since we found that
the greatest difference in rating behaviors between the genders occurs with male characters, there is a possibility that prior research findings contain inherent biases. In our study, we looked at ethics issues in the information-systems setting; there is a need to explore this issue much more extensively to determine how large of an impact the character's gender has in different settings.

We found that ethical judgements may be dependent on the gender of the character independent of the evaluator's gender in some cases. In our setting, we found that evaluators were more likely to label some behaviors as unethical when exhibited by females. This may be a result of socialized expectations of appropriate and inappropriate behaviors by males and females. As already discussed, there is a need for further research to determine when character gender matters and when it does not. We also found that the ratings by female evaluators were more consistent with the ratings by experts in aggregate and in several specific cases. This is consistent with prior studies (Athey, 1993; Khazanchi, 1995). Still, there is a need to conduct further research to determine the situations where males and females differ in their perceptions.

**Limitations**

As with all experimental studies employing human subjects there are possible limitations to this study that may impact the ability to generalize the results to other settings. One potential limitation with this study is that we used scenarios in an information systems domain to assess ethical judgement. This is a possible limitation since our subjects may not have sufficient exposure to information systems to adequately understand the more subtle issues involved in the scenarios. For this reason, we avoided using scenarios that involved the technical aspects of software development. Instead, we used scenarios that addressed the fair use of information, job-seeking behaviors, information accuracy, and other topics that our subjects had been exposed to in prior courses. Also, since we focused on the information systems domain, we cannot make strong conclusions about the role of gender in other business domains. There is a need to replicate this study using scenarios from other business domains to determine if these results hold across domains.

Second, overall our findings in this study were statistically weak. Our findings regarding the influence of evaluator gender were statistically weak at the aggregate level and for two scenarios (one and five). Our findings regarding the influence of character gender were not significant at the aggregate level but were significant for scenario one. While we did find interesting results using a graphical analysis of the interaction between
evaluator gender and character gender, our findings were not significant using ANOVA. There are several possible explanations for this. First, ethical judgement may not be related to an interaction between the character’s gender and the evaluator’s gender. Second, our sample size may not have been large enough to fully reveal the relationships in this setting. Third, the nature of the scenarios employed in this setting may have resulted in our subjects not considering gender to be a significant factor. To address the last two possibilities, we are planning a follow-up study using a different instrument and the same experimental procedures with a larger sample. This will enable us to further generalize about this issue. This will also provide more evidence regarding the role that the interaction between the character’s gender and the evaluator’s gender plays in ethical judgements.

Finally, this study assesses ethical judgements using scenarios presented on paper. As a result, some subjects may have viewed these scenarios as abstract or unrealistic. However, we believe that the scenarios we employed in this study match ethics questions that our subjects face as students or will face as business professionals. Also, it is important to recognize that we focus on ethical judgements; although ethical judgements may provide some indication of how a person might behave in a similar situation, we must be careful not to draw conclusions about behavioral intentions from this or any other similar study. Finally, we do not believe that it would be ethical for us, as researchers, to intentionally place our subjects in a situation where they may engage in unethical actions or be exposed to potentially unethical treatment; as a result, we are forced to use paper-based scenarios to study ethical judgements.

CONCLUSION

Returning to our earlier question, “Does gender matter?” we still have no conclusive answer. However, we found some interesting results. We conducted an experiment to investigate the influence of character gender and evaluator gender on ethical judgements in an information-system setting. We found evidence to suggest that gender-based double standards do exist. Female evaluators may judge male characters more harshly than female characters; and, male evaluators may judge female characters more harshly than male characters. We also found that the greatest difference in ethical judgements between the genders occurred when using scenarios with male characters. This finding is troubling given that several studies have compared male and female ethical judgements using cases with predominantly male characters. We also found evidence to confirm
prior research results that female evaluators produce ratings that are more consistent with experts' rating than do male evaluators. Finally, we found evidence to suggest that evaluators may view some behaviors by female characters as less ethical than when males engage in the same behavior, independent of the evaluator's gender.

Based on our findings, there is a need to engage in more research to determine the scope of the generalizations. We found that people judged the actions of members of the other gender more harshly. There is a need to determine if this apparent double standard persists in other settings. There is also a need to study the reasons for this double standard and the impact of this double standard on ethical judgements. We found that character gender is influential in some settings independent of the evaluator's gender. There is a need to explore the role of character gender on ethical judgements to see why females were viewed as more unethical when engaging in the same behavior as males in one case. Finally, as with other studies, we found that female evaluators reported ethical judgements that are more consistent with experts' assessments than did male evaluators. There is a need to conduct research to identify the factors that influence a person's evaluation of a situation and what forces lead to these gender differences.

APPENDIX

Scenario 1 (S1)

A computer programmer was seeking new employment, unknown to her current employer. At times when she was unobserved, she made copies of the listings and documentation of programs she had written for her employer, and she used these examples of her work.

In one case, where she knew there would be no direct harm done, she gave the examples as part of her resume to a prospective employer. However, she also showed them to another prospective employer, who gained from them significant knowledge, which gave the prospective employer a competitive advantage over the programmer's employer.

Character: Programmer

Scenario 2 (S2)

At a time when experts where beginning to question the merits of current agricultural practices, a researcher used computer-modeling techniques to predict that a global agricultural disaster would occur in fifty years. To stimulate public concern and debate about agricultural practices, she published her prediction in a low-priced, mass-market paperback. The book emphasized the role of the computer in making this prediction, for example, by including computer-generated graphs and
illustrations. But the book did not discuss the fact that the prediction depended on debatable assumptions and selection of data, and could be radically different, with a slight change of assumptions. Being unaware of these facts, the general public accepted the dramatic predictions as indisputable and objective, in significant part because it came from a computer, and the public became deeply concerned with agricultural practices.

Character: Researcher

Scenario 3 (S3)

A professor of computer science at a university developed a new computer programming language for a range of computer applications. Two of her graduate students tested the language for consistency and completeness. They discovered and corrected several significant short-comings and added several new features. A programmer on the staff of the university’s computer center programmed the compiler for the language. The programmer discovered flaws in the syntax and corrected them, with the permission of the professor. The programmer also found ways to change the language that improved the performance. The graduate students and professor documented the language, and they wrote a user’s manual.

The professor compiled the writings into a scientific paper and published it under her own name alone, with no acknowledgement of the contributions of the graduate students or the programmer.

Character: Professor

Scenario 4 (S4)

Company A invited a consultant to submit a proposal to develop a computer program based on explicit program specifications. The consultant is currently programming the same application for Company B, based on far superior specifications that will give it a significant competitive advantage over Company A. She submits a proposal to Company A without mentioning that the specifications are already inferior to the competing product.

Character: Consultant

Scenario 5 (S5)

A computer operations manager has responsibilities that include data preparation and entry, computer operation, computer security, report generation and distribution. The top executive officers of the company are engaged in a massive fraud against the stockholders and other investors by inflating company assets. Significant evidence of the fraud is contained in the data files stored and processed by the computer, and computer programs have been developed to assist in the perpetration of the fraud.

The computer operations manager becomes aware of the company’s problems and unorthodox methods being used to solve them. She avoids being confronted with information or activities that might make her aware of possible wrongdoing.
The fraud is ultimately discovered and the perpetrators prosecuted. The prosecutor requires the operations manager to make a deposition. She states that she was ordered to perform unorthodox and unexplained acts, such as leaving large numbers of product shipment addresses blank, or making them all the same in the data entry function. She claims she was not, nor would be expected to be, aware of the purposes of the acts. She stated that hers was a neutral service function, not requiring any knowledge of the company’s business. She was not prosecuted.

Character: Computer Operations Manager

Scenario 6 (S6)

A commercial time-sharing service offered use of a program at a premium charge, the program to be used only in the service company’s computer. A user obtained a copy of the program accidentally, when the service company inadvertently revealed it to her in discussions through the system (terminal to terminal) concerning a possible program bug. All copies of the program outside of the computer system were marked as trade secret, proprietary to the service, but the copy the customer obtained from the computer was not. She used the copy of the program after she obtained it, without paying the usage fee to the service.

Character: User

Scenario 7 (S7)

A university student used the campus computer time-sharing service as an authorized user. The service director announced that students would receive public recognition if they successfully compromised the computer system from their terminals. Students were urged to report the weaknesses they found. This created an atmosphere of casual game playing and one-upmanship in attacking the system.

The student found a means of compromising the system and reported it to the director. However, nothing was done to correct the vulnerability, and the student continued to use her advantage to obtain more computer time than she was otherwise allowed. She used the time to play games and continue her attacks to find more vulnerabilities.

Character: Student

REFERENCES

ETHICAL JUDGEMENTS


