

# Can Business Ethics be Trained? A Study of the Ethical Decision-making Process in Business Students

Barbara A. Ritter

**ABSTRACT.** The purpose of this paper is to examine the various guidelines presented in the literature for instituting an ethics curriculum and to empirically study their effectiveness. Three questions are addressed concerning the trainability of ethics material and the proper integration and implementation of an ethics curriculum. An empirical study then tested the effect of ethics training on moral awareness and reasoning. The sample consisted of two business classes, one exposed to additional ethics curriculum (experimental), and one not exposed (control). For the experimental group, ethics exercises and discussion relevant to each topic were completed. Findings suggested gender differences such that, relative to other groups, women in the experimental group showed significantly improved moral awareness and decision-making processes. An explanation of the underlying cognitive processes is presented to explain the gender effect.

**KEY WORDS:** business ethics, designing business ethics curriculum, ethics, teaching business ethics, teaching undergraduate business students

## Introduction

With several recent scandals at the forefront of business news, the topic of teaching business ethics

to undergraduate students has become a major issue of discussion. Accordingly, the literature focused on the teaching of business ethics is extensive. Perspectives suggesting how to teach ethics in business school, what to teach, and even if to teach it at all are prevalent in the literature covering a span of at least 15 years and arguably more than an entire century (e.g., Hudson, 1912). The debate over these issues is often heated (e.g., Churchill, 1982), and generally left unresolved as the number of contradictory conclusions grow. Academics concerned about including ethical decision-making strategies or other content in their classroom are hard pressed to find simple answers in either the theoretical or empirical research.

The following review and empirical examination attempts to simplify the extant literature and determine a workable method that successfully integrates ethics into the college classroom. The following three sections address issues necessarily encountered in the process of introducing an ethics component into the curriculum. Primarily, the instructor must determine if ethics education has a place in the college classroom. Presuming an answer in the affirmative, the next question is how ethics should be incorporated into business programs. After discussion of this question, the guidelines and recommendations put forth in the recent literature to create an actionable plan of implementation are discussed. Finally, this paper culminates in an empirical examination of the proposed guidelines to determine if they affect important learning outcomes such as moral awareness and reasoning. The first section addresses evidence pertaining to the trainability of ethics in the classroom.

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*Can business ethics be taught?*

The question of the trainability of ethical decision-making is multifaceted. Some argue that ethics cannot be taught because character development has already occurred by the time an individual reaches college age (Cragg, 1997). Other groups, including the Association to Advance Collegiate Schools of Business (AACSB international) and relevant professional organizations (e.g., Academy of Management) present ethical decision-making strategies and important ethical values to be taught to students for consideration in business decisions, obviously assuming that such things can be trained. While the argument that one college class or a series of classes is not sufficient to change a character built early in one's life and infused with negative aspects of the surrounding environment (e.g., an economy of cutthroat competitiveness) provides a tenable rationale, it is clear that many professors and professional organizations believe that some component of ethical decision-making can be taught. Indeed, many theorists and researchers implicitly or explicitly seem to agree that the former position has merit and is worth exploring empirically. Churchill (1982) offers a solution to this dilemma, suggesting that the key to the question of the trainability of ethics lies in the distinction between ethics and moral values. Ethics, as a systematic, rational reflection upon a choice of behavior, he argues, can be taught. Moral values, on the other hand, may develop much earlier in an individual's life and the trainability during a short segment of time is questionable.

The argument suggesting that character development is complete prior to one's college years is supplemented with evidence that implicit in a business education is an education in *unethical* behavior. Theorists in this vein often suggest that unethical values or an absence of ethical values exists implicitly and is transmitted in all business classes. Indeed, business students in some cases tend to be more unethical after completion of their degree than before (Wolfe and Fritzsche, 1998). It is reasonable to argue that the ideas transmitted in business courses such as the ruthless nature of our competitive economy and the focus on outcomes (especially economic) throughout business history has made it impossible to undo the damage with a superficial response such as those that occur in the attempts of

many business programs to integrate ethics into the curriculum (e.g., Cragg, 1997; McDonald, 2004; Saul, 1981). Perhaps, however, the answer lies in a response that is more than superficial in nature. Indeed, most theorists suggest that given the proper implementation, an ethics curriculum can be designed for effective learning (Sims, 2002). Empirical evidence lends credence to this point, demonstrating that the introduction of an ethics component into the classroom can often lead to improvement in ethical sensitivity, moral reasoning, and even ethical behavior (Loe and Weeks, 2000; Lowry, 2003; Ruegger and King, 1992; Schlaefi et al., 1985; Sims, 2002; Weber and Glyptis, 2000; Wittmer, 1992). Hence, it seems likely that a concerted effort to address ethics issues in the classroom is sometimes able to counter the opposing forces.

A reasonable compromise between the two extreme positions is to suggest that the teaching of ethics is only amenable to individuals already primed to consider ethical strategies and related moral values (Cragg, 1997). While literature relevant to such cognitive processes may seem to agree with the conclusion that primed individuals are more sensitive to content areas related to the primed (cognitively activated) category (Bargh, 1994; Smith, 1996), it is clear that the sensitivity of cognitive content to activation can also be manipulated in individuals. In some cases, very little effort is necessary to prime a concept (if the cognitive representation already exists) and in other cases effort is necessary to build the mental representation (or schema) available to be primed (i.e., activated) at a later time (Smith and Queller, 2000).

Based on the idea of a script schema, a cognitive structure that provides individuals with an appropriate or general sequence of behavioral events in a certain context based on goal related information (Foti and Lord, 1987), if college classes can give ethics issues enough time in the overall curriculum, individuals will create a schema with an ethics substructure that can be primed in future business-related decision-making. Based on the related cognitive literature and Cragg's (1997) suggestion, a decision-making schema that includes ethics may be accessible, based on past learned experiences, in some individuals prior to the college classroom. The key then is to ensure the creation of an ethics schema in all individuals and to link it to decision-making in

business (so that the ethical schema becomes activated in all future business decision-making). One theorist supported these specific ideas by suggesting that if students get into the “habit” of applying ethical decision-making strategies in a school setting, they will be more likely to use them in business situations (Oddo, 1997). Cognitively, creating a habit involves the requisite activation of a particular learned schema primed to be automatically activated in similar situations. However, the question remains regarding how much exposure students need to make ethics a “habit”.

Currently, most business schools do not put forth a large-scale effort to make ethical considerations automatic in decision-making (McDonald, 2004; Saul, 1981). Current efforts to integrate ethics into the curriculum may increase the possibility that individuals with a prior ethical schema will activate it and apply it in business situations; however, there may be little to no effect on individuals who have not yet created an ethical schema. Agreement regarding this principle is implied in the ethics literature as many authors argue that in order to be successful, implementation of such a program must involve agreement and commitment of the entire business faculty to an overall set of ethical principles to be expressed to students (Sims, 2002). Regardless, there has been no large scale study that examined the extent a department-wide effort can have against the competing influences of socialization. Based on a requirement of 120 semester hours to graduate, over 1200 hours are spent in class (not including outside of class preparation). It is not known how many of these hours would need to focus on ethics to create an ethical schema in students of all backgrounds, but it may be less than one might think (e.g., studies have shown that part-time student workers working as little as 1 month form a mental representation of a current or past work leader that is activated in future decision-making situations; Ritter and Lord, 2006).

In summary, there is a great deal of disagreement both theoretically and empirically regarding the trainability of ethics content. The available literature to this point leads us to the possibility that both options are in some sense correct. That is, for those individuals with an ingrained ethical background prior to the college classroom, implementation of an ethics curriculum may be quite effective in supplementing their existing schema. For those individuals

lacking experience in the ethical components of decision-making, the current level of ethics training provided in business schools is not adequate to make ethics a “habit”. Hence, the question that remains is how business schools and individual professors can best integrate ethical principles into the curriculum for this purpose. In recognition that an ethics component of some sustenance must be included in our Undergraduate and Graduate school curriculum, many theorists have proposed guidelines as to how this implementation can occur most effectively, addressed in the following section.

#### *How should ethics be included in the curriculum?*

Several options seem to compete for the preferred method to incorporate ethics into business programs (Felton and Sims, 2005). One choice is to provide students with one core course that focuses solely on ethics. Another possibility is to integrate ethics content throughout multiple courses. The final possibility is to juxtapose the aforementioned options, where students take a core course in ethics and ethics content is interspersed throughout various other business classes. In practice, one study showed that the majority of MBA programs integrates ethics into the curriculum, a smaller number combine a core course with integration, and the smallest number provides only one course. Interestingly, a survey of the faculty in the MBA programs showed that most recommend further integration into core courses to increase effectiveness (McDonald, 2004).

A review of the theoretical literature regarding this issue leads us to a different conclusion. According to theorists, the ideal situation occurs when students learn basic philosophical theories underlying ethical decision-making in a required ethics class (e.g., normative ethical theories, deontological theories, etc.) and ethics is further integrated throughout additional business classes to apply the concepts to specific contexts that the students may face in their careers (Felton and Sims, 2005; McDonald, 2004; Oddo, 1997; Sims, 2002). An advantage of this method is that by directly applying ethics to situations very similar to those which individuals may face in a work setting, transfer of the material from school to work is increased (Noe, 1999; Oddo, 1997). Notably, it is also evident that

the implementation of any program will be most effective if the importance of such a program is recognized at higher organizational levels and overall goals can be agreed upon by the entire business faculty (Sims, 2002). These two criteria are essential to incorporate ethics into multiple business classes and works in concert with the above argument that ethics training would have to be fairly extensive to be effective for all students.

*What guidelines are recommended when instituting an ethics curriculum?*

It is largely agreed that proper implementation is necessary at a very minimum to ensure the possibility of an effective ethics curriculum (Sims, 2002). In this vein, theorists make several suggestions relevant to the current study (Felton and Sims, 2005; Sims, 2002; Sims and Felton, 2006). In an effort to extrapolate guidelines common to much of the current literature, the most frequently-cited guidelines that have not already been included in previous sections of this paper are discussed here (see Felton and Sims, 2005; Sims, 2002; Sims and Felton, 2006). As a first step, it is important to identify the goal of your ethics program and the related outcome(s) of importance. The outcome(s) can then be assessed to determine the program's effectiveness. General goals cited for ethics training are often discussed and tend to overlap. Callahan (1980), for example, suggested that the goals of an ethics education should be to (1) stimulate moral imagination (i.e., the perception of morality; Clarkeburn, 2002), (2) recognize ethical issues, (3) elicit a sense of moral obligation, (4) develop analytical skills, and (5) tolerate and reduce disagreement and ambiguity. These goals are characteristic of a variety of theories as they tend to list awareness and recognition as a first step and changing the decision-making process to include an ethics component as occurring later in the process.

Second, the training should be designed so that it is relevant to students and applied to a business environment. Relevancy to the business environment is addressed by simply incorporating the basic ethics theories learned in a core class into specific business classes. Relevancy to students, however, may be a more difficult issue. Sims (2002) suggests

that ethics material may be seen as relevant by students if they are made aware of the multitude of instances in business where ethical considerations should play a role and are provided with examples of situations in which they may face a real-life ethical dilemma. The consideration of ethics issues needs to then be legitimized for students and they need a conceptual framework to analyze choices. Often this is accomplished by providing the relevant professional association's guidelines for ethical decision-making (Oddo, 1997).

Finally, an effective implementation involves providing a safe learning environment (a non-critical, open atmosphere) that includes experiential or active learning components. Providing experiential components as part of the ethics curriculum helps to achieve many of the objectives of implementation such as demonstrating relevance and applying ethical theories to real-life scenarios, as well as increasing transfer from school to work contexts. Additionally, there is empirical evidence to suggest that an experiential approach may be most effective for students to learn ethical decision-making, to increase sensitivity to ethical issues, and to increase self-awareness of ethical issues (Pettifor et al., 2000).

*The current study*

The purpose of this paper is not only to examine the various guidelines presented in the literature for instituting an ethics curriculum, but also to empirically study their effectiveness. Hence, the current study was undertaken in an attempt to follow all possible implementation guidelines. As such, the first step was to identify the current goal of the program and the outcome(s) to be assessed. In light of the previous discussion regarding the cognitive nature of including ethics as part of an overall schema, the purpose of teaching business ethics in this case was to increase what Rossouw (2001) has termed cognitive competence, or the acquisition of the mental knowledge and skills to make an ethical decision. Cognitive competence includes elements of moral awareness, moral understanding, moral reasoning, moral decision-making, and moral tolerance. As most theorists include moral awareness and moral reasoning as the necessary first steps toward ethical decision-making (followed by, for example, examining

courses of action based on ethical principles, developing a plan of action, and putting that plan into action), and these variables are seen as appropriate first steps for undergraduates, they are the focus of the current experiment (Callahan, 1980; Felton and Sims, 2005; Pettifor et al., 2000; Rest, 1984). Hence, this study measures moral awareness, defined as recognition of an ethical issue, conflict, and/or responsibility (Felton and Sims, 2005), as well as moral reasoning, defined as weighing and evaluating different courses of action and taking ethical principles into account when determining one's stance (Pettifor et al., 2000; Rossouw, 2002). Although many theorists have argued that providing ethics training on such a small scale will not significantly affect relevant ethical outcomes (e.g., McDonald, 2004; Saul, 1981), it is expected that by following the guidelines for effective implementation, even a relatively small scale effort can begin a foundation upon which to build larger scale implementations.

#### *Hypothesis 1*

Individuals exposed to training in ethical decision-making will demonstrate more awareness (coded quantitatively) of ethical issues in the decision-making process.

#### *Hypothesis 2*

Individuals exposed to training in ethical decision-making will be more likely to include ethical components in their reasoning (measured qualitatively) used to arrive at a decision regarding an ethical dilemma.

Although the majority of these students had completed a class in business ethics that introduced them to basic ethical theories (as is the ideal case suggested by theorists), the Academy of Management's (AOM) model was introduced as a framework for ethical decision-making in an attempt to make ethics relevant to students and legitimize the consideration of ethical issues (Oddo, 1997; Sims, 2002). The AOM model suggests that students consider not only the outcomes of their actions, but also the stakeholders affected, and a list of core values that are considered important to managers. Students were not only exposed to the AOM's professional guidelines for ethical decision-making, but were also

exposed to the consequences of focusing solely on outcomes (following the normative expected utility theory) through the use of case examples (e.g., Enron & WorldCom).

A variety of instructional practices was used incorporating the call for experiential and active learning practices. Students were exposed to several real-life and fictional case studies that asked them to apply the ethical principles they had learned to a particular business case scenario. Discussion generally occurred in small groups and was followed by a debriefing period as an entire class. In this manner it was expected that students were exposed to all of the components necessary to achieve cognitive competence; exposure to ethical theories and tools of analysis, the opportunity to apply their knowledge to business situations, and to develop tolerance for divergent views (achieved via group activities such as discussions and debates) (Rossouw, 2001).

## **Method**

### *Participants and design*

Participants were 77 undergraduate students for the quantitative aspect of the study (posttest) and 57 students for the qualitative (pretest-posttest) aspect who were currently enrolled in an Organizational Theory and Behavior course at a Mid-size Southern University. The University, however, consists of a large number of out-of-state students (nearly half) primarily from New Jersey, New York, Virginia, Pennsylvania and Ohio. The mean age of the sample was 22.09. The design began as a simple test of mean differences between the treatment and control groups and evolved to a 2 (participant condition)  $\times$  2 (participant gender) factorial as analyses progressed. Hence, ultimately there were 17 male participants and 16 female participants in the experimental condition, and 25 male and 19 female participants in the non-experimental condition.

### *Procedure*

A pretest, posttest design with a control and experimental group was used to study the qualitative aspect



of this study related to moral reasoning. The sample consisted of two classes of Organizational Theory and Behavior, a class required by management majors. All possible extraneous variables were held constant; the classes were in the same program, taught by the same instructor, during the same semester, same time of day, on the same days of the week. One class was exposed to additional ethics curriculum (experimental group), and one class was not (control group). For the experimental group, ethics exercises and discussion relevant to each topic (a total of 10) were completed (starting during the second week of class). Students reflected upon their responses to each case in reference to the ethical guidelines for decision-making provided by the Academy of Management. At the beginning and at the end of the semester, students in both conditions responded to two vignettes (Fritzsche and Becker, 1984) designed to gauge, in detail, factors involved in the decision-making process. The responses were assessed qualitatively to determine if and how ethical considerations fit into decision-making (and if the treatment condition had any effect). Students also completed a posttest Likert-scale measure gauging perceptions of ethical behavior (Smith and Oakley, 1997). This measure was analyzed quantitatively to explore the effect of the ethics training on moral awareness.

### Measures

#### *Moral awareness*

Recognition and awareness of ethical issues was assessed using a previously-established measure (Smith and Oakley, 1997). This measure was selected due to the established reliability (coefficient alpha = 0.80) and ease of measurement and analysis. Accordingly, 15 business scenarios were presented to participants and they were asked to indicate the extent they find the situation ethically acceptable on a scale from one (never) to six (always). In previous research, the scale was divided into two factors, one capturing rule-based behavior, the other reflecting concern about social and interpersonal issues. Hence, a confirmatory factor analysis using Principle Axis Factoring (PAF) with an oblique rotation that allowed for correlated underlying factors, was used to examine the scale. A factor analysis was deemed appropriate in this instance as the data were normally

distributed (according to skewness and kurtosis indexes) and seemingly stable. Although the two previous factors were not replicated, two factors did emerge. The first factor involved items assessing coercion and control, conflict of interest, or paternalism (involving consumer welfare). One item, for example, asked participants to assess the ethicality of the following scenario: "A company paid a \$350,000 'consulting' fee to an official of a foreign country. In return, the official promised assistance in obtaining a contract, which should produce \$10 million profit for the contracting company". This factor is henceforth called *external ethics* as it involves bribes or decisions primarily involving others. The second factor involved items primarily assessing issues of *personal integrity* and will be referred to as such. An example scenario from this factor is: "An executive earning \$50,000 a year padded his expense account by about \$1,500 a year". Two items with high cross loadings were excluded from analyses so that no cross loadings exceeded 0.40 and each item rationally fit into this categorization. The reliability of these scales, assessed separately, was acceptable (coefficient alpha for external ethics = 0.73; coefficient alpha for integrity = 0.71).

#### *Moral reasoning*

Two vignettes, addressing ethical issues pertaining to business decisions, were selected to measure the moral reasoning process pretest and posttest (Fritzsche and Becker, 1984). It is generally recognized that moral sensitivity and recognition, as first steps in the process of moral reasoning, is best measured in a qualitative fashion (Clarkeburn, 2002). Clarkeburn (2002) suggests that measurement of the moral reasoning process should be done qualitatively, as it captures the spontaneous response with no guidelines or pre-established thought patterns provided. The present study combines measures of a quantitative and qualitative nature to capitalize on the strengths and downplay the weaknesses of both approaches. Hence, moral reasoning is measured by allowing participants to write out their decision-making response to two ethics dilemmas.

Only two scenarios were utilized due to time constraints; however, they were selected specifically for multiple reasons. First, vignettes seem to require deeper processing and a higher quality response than

simple questions. Second, the vignettes selected had been carefully reviewed by experts and pretested in a pilot study to ensure soundness of measurement (Fritzsche and Becker, 1984). The scenarios addressed ethical issues relating to coercion and control as well as conflict of interest. Participants were asked to read the vignettes and specify how they would likely behave in each situation. Two open-ended questions also followed each scenario, asking participants to describe five issues they considered in making their decision and note the main reason for making their decision.

Qualitative analysis of participant responses was completed following the guidelines established in a similar study establishing a moral sensitivity test for science classes (Clarkeburn, 2002). Open-ended responses were categorized using a four-tier scoring guide, Tier 0 being a non-ethical response to Tier 3 being the highest level ethical response. The validity of the scoring guide as an indication of moral sensitivity has been established in previous research (Clarkeburn, 2002). The responses were coded using this scoring guide by two trained raters. Interrater agreement was 83% and inconsistencies in coding were resolved following a discussion of the case until agreement was reached.

**Results**

Descriptive statistics for all relevant variables, including the means, standard deviations and correlations are reported in Table I. Interestingly, gender was significantly related to personal integrity and

external ethics ( $r = -0.35, p \leq 0.01$ ;  $r = -0.37, p \leq 0.01$ ) such that males are less sensitive to ethical issues. A gender effect is commonly seen in research pertaining to ethical decision-making and was subsequently included as a possible moderating variable in additional analyses.

Hypothesis one predicted that individuals exposed to training in ethical decision-making will demonstrate a higher awareness of ethical issues. This hypothesis was not demonstrated using quantitative analysis as *t*-tests showed that there were no significant differences between the treatment and control groups in awareness of ethical issues for personal integrity or external ethics ( $t = 0.953, p = 0.346$ ;  $t = -0.043, p = 0.966$ ).

When gender was included as a moderating variable using Analysis of Variance (ANOVA), however, an interesting effect emerged. In this analysis, treatment condition and gender were included as main effects and a gender  $\times$  treatment condition interaction was tested to determine if women responded to the ethics training in a different fashion than men. The gender  $\times$  treatment interaction was significant, suggesting that this was indeed the case for personal integrity ( $F = 10.25, p \leq 0.01$ ) (see Table II). Post-hoc *t*-test analyses suggested that women in the treatment condition had significantly higher recognition of personal integrity issues than all other groups (see Table III) (see Figure 1). The gender by treatment effect was not significant for external ethics ( $F = 2.57, p = 0.11$ ); however, the main effect of gender was significant ( $F = 13.24, p \leq 0.001$ ) and the main effect of treatment was marginally significant ( $F = 2.80, p = 0.10$ ) (see Table IV). This result suggests that women may be more amenable to ethics training than men regarding

TABLE I

Correlations, means and standard deviations<sup>a</sup>

	1	2	3	4
1. Treatment	–			
2. Gender	–0.05	–		
3. Personal integrity	0.18	–0.35**	<i>0.71</i>	
4. External ethic	0.18	–0.37**	0.56**	<i>0.73</i>
Mean	1.57	1.45	2.66	3.34
SD	0.50	0.50	0.69	0.87

<sup>a</sup> $n = 77$ ; \*\* $p \leq 0.01$ . Treatment is coded 1 = control and 2 = experimental. Gender is coded 1 = male and 2 = female. Scale reliabilities are italicized on the diagonal.

TABLE II

Analysis of variance for the treatment by gender effect on personal integrity<sup>a</sup>

Source	df	F	$\eta^2$	<i>p</i>
Treatment (T)	1	3.36	0.04	0.07
Gender (G)	1	14.23	0.16	0.00
T $\times$ G	1	10.25	0.12	0.00
Error	73	(0.37)		

<sup>a</sup>The value enclosed in parentheses represents mean square error.

issues of their personal integrity and perhaps (marginally) regarding external ethics as well.

TABLE III

Post-hoc *t*-test analyses examining mean differences in treatment condition  $\times$  gender for personal integrity<sup>a</sup>

	df	<i>t</i>	<i>p</i>
F1 vs. F2	33	3.71	0.00
F1 vs. M1	31	5.07	0.00
F1 vs. M2	39	4.30	0.00

<sup>a</sup>F1 = females in the treatment condition; F2 = females in the control condition; M1 = males in the treatment condition; M2 = males in the control condition. No other comparisons were statistically significant.

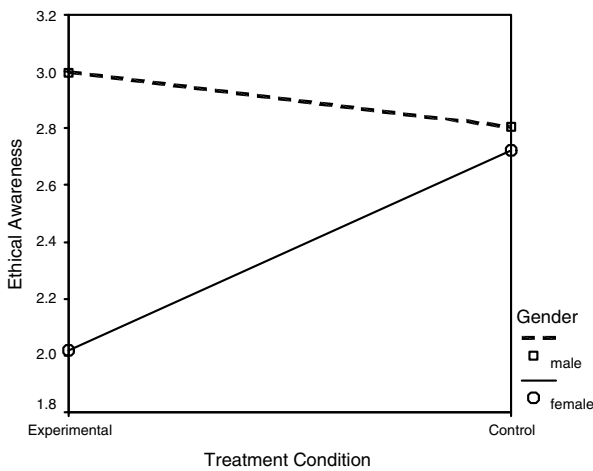


Figure 1. Treatment condition  $\times$  gender interaction for personal integrity. Lower scores indicate higher moral awareness.

TABLE IV

Analysis of variance for the treatment by gender effect on external ethics<sup>a</sup>

Source	df	<i>F</i>	$\eta^2$	<i>p</i>
Treatment (T)	1	2.79	0.04	0.10
Gender (G)	1	13.24	0.15	0.00
T $\times$ G	1	2.57	0.03	0.11
Error	73	(0.64)		

<sup>a</sup>The value enclosed in parentheses represents mean square error.

Hypothesis two predicted that individuals exposed to training in ethical decision-making will utilize a different decision-making process to arrive at a decision to ethics dilemmas (i.e., trained individuals being more likely to base a decision on ethical factors). This hypothesis was tested qualitatively by examining the reasoning behind a participant’s decision. Qualitative analyses seem to confirm the idea that women are more amenable to ethics training as women in the treatment condition seemed to be the only group that demonstrated a pattern of movement from Tier 0 responses at Time 1 to Tier 3 responses at Time 2 (see Tables V, VI), especially in the coercion and control scenario.

Probing deeper into the qualitative data, both scenarios from which data were gathered fit under the rubric we have labeled external ethics in the quantitative scale. Hence, although the *F*-test was not statistically significant for the treatment by gender interaction predicting scores on the external ethics scale, we chose to explore the group differences further in post-hoc analyses. Indeed, as was the case for the personal integrity scale, women in the treatment group demonstrated significantly higher scores on ethical awareness of external issues than all other groups (see Table VII; see Figure 2).

TABLE V

Scenario 1: Coercion and control qualitative analyses.

Number of individuals in each tier for the control group (Panel A) and treatment group (Panel B) scores at Time 1 and Time 2

	Time 1		Time 2	
	M	F	M	F
Panel A (male <i>n</i> = 18; female <i>n</i> = 10)				
Tier 0	14	7	15	9
Tier 1	1	0	0	0
Tier 2	3	0	2	1
Tier 3	0	3	1	0
Panel B (male <i>n</i> = 15; female <i>n</i> = 14)				
Tier 0	12	10	11	3
Tier 1	1	1	0	2
Tier 2	2	2	3	7
Tier 3	0	1	1	2



TABLE VI

Scenario 2: Conflict of interest qualitative analyses.  
 Number of individuals in each tier for the control group (Panel A) and treatment group (Panel B) scores at Time 1 and Time 2

	Time 1		Time 2	
	M	F	M	F
Panel A (male <i>n</i> = 18; female <i>n</i> = 10)				
Tier 0	4	4	3	3
Tier 1	5	2	5	2
Tier 2	6	1	5	4
Tier 3	3	3	5	1
Panel B (male <i>n</i> = 14; female <i>n</i> = 15)				
Tier 0	4	4	8	4
Tier 1	1	2	0	1
Tier 2	7	6	2	6
Tier 3	2	3	4	4

TABLE VII

Post-hoc *t*-test analyses examining mean differences in treatment condition × gender for external ethics<sup>a</sup>

	df	<i>t</i>	<i>p</i>
F1 vs. F2	33	2.85	0.01
F1 vs. M1	31	3.44	0.00
F1 vs. M2	39	3.94	0.00

<sup>a</sup>F1 = females in the treatment condition; F2 = females in the control condition; M1 = males in the treatment condition; M2 = males in the control condition. No other comparisons were statistically significant.

**Discussion**

The current study tested the notion that proper implementation of even a small-scale ethics program into the business school curriculum could have positive effects on students. This general idea was not wholeheartedly supported. Instead, the positive effects of an ethics training program were witnessed only in women. This result seems surprising; however, it coincides with previous literature on several interesting levels. First, the literature examining gender effects in ethical awareness and reasoning often suggests that women score higher in ethical

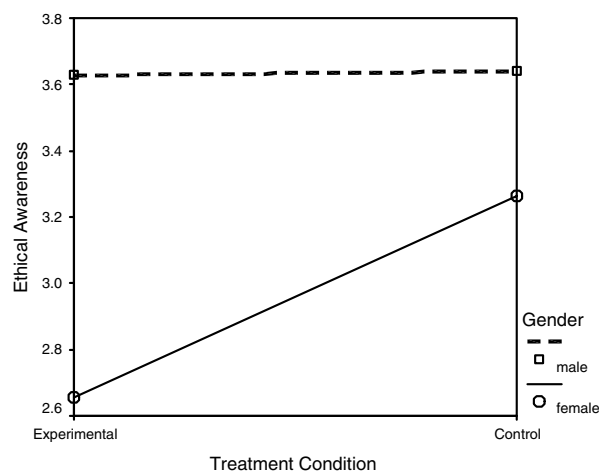


Figure 2. Treatment condition × gender interaction for external ethics. Lower scores indicate higher moral awareness.

reasoning than men (Beu et al., 2003; Franke et al., 1997; Galbraith and Stephenson, 1993; Gilligan, 1982; Loe and Weeks, 2000; Ruegger and King, 1992; Smith and Oakley, 1997). Interestingly, Loe and Weeks (2000) suggested that perhaps men and women would respond differently to ethics training due to the differences in morality cited in past literature; however, they do not find such a difference in their results. The disparity between the present research and Loe and Week’s result may be explained by the finding that gender differences are context-specific (Smith and Oakley, 1997) such that no gender differences are found for rule-based behavior, but gender differences are found in most other areas (e.g., social issues, sexual exploitation, integrity of employee relations). The contingency effect may also explain why the gender effect present in the current study is stronger for personal integrity issues versus external behaviors.

Regardless, there is much evidence to suggest that women reason at a higher ethical level than men. Cognitively, this means that women are more likely to enter the college classroom with an ethical schema available for activation and use in decision-making. Although the present study did not confirm the hypothesis that a small-scale ethics application will reach all students, it supports the assertions stated previously in this paper regarding the cognitive mechanism underlying an ethics education. As Cragg (1997) suggested, perhaps the teaching of

ethics is only amenable to individuals with a mental schema available to consider ethical strategies and related moral values. In this case, women were more likely to have an ethical mental schema and when primed to use it in the classroom, they did. Women in the control condition were not primed to activate an ethical schema and fell back on decision-making strategies that may have been explicitly or implicitly taught in other business courses. Men may not have elaborate ethical schemas available to be primed in the classroom setting and so their ethical standing remained consistent across conditions due to lack of availability.

As is the case with any mental representation, however, with enough training it is possible to create an ethical schema accessible and primed for use. The challenge then, as a faculty, is to determine how much ethics education is necessary to create a cognitive schema in those who do not possess one by the time they reach college. There are many obstacles to be surpassed in this challenge; character development occurring in a society in general and in a business context in particular that works against the teaching of ethical principles, but just as individuals can learn to overcome the use of deeply-ingrained cognitive stereotypes (Devine, 1989), they should be able to overcome the use of simplified utility theories in business decision-making.

Alternatively, it may be the case that men do have an intricate ethical mental schema available for processing; however, it was not primed by the methods put forth in this particular implementation or the particular instructor. More likely is the conclusion that men are aware of ethical principles; however, they identify to a stronger degree with the traditional business paradigm that suggests profits override ethical considerations. Women, on the other hand, have made necessary changes to the traditional business paradigm to include their gender role and are willing to make other concessions as well. In this case, a system-wide effort is likely necessary to change the cognitive weighting of mental concepts in men so that ethics is primed in decision-making in addition to profits. That is, ethics will indeed have to be stressed as a consideration in nearly every business course with a result of changing the student's perception of the current business paradigm overall. Additional research focused on the cognitive applications behind the

gender differences are necessary to determine with confidence the differences in the ethical mental schema of men and women.

Several limitations are present in the current research. As this is a relatively small-scale project, not yet instituted at the departmental level, goals are identified and assessed at the level of the classroom. This is representative of the integration approach and examines the significance of integrating ethics into one class; however, the success of a more all-encompassing program (as such was recommended for maximum effectiveness) cannot be assessed at this point. Further, the results of the present study are based on a relatively small sample size. The conclusions drawn from the results presented here can and should be supplemented with additional data of a similar nature. Finally, the dependant variables of interest were limited to moral awareness and moral reasoning, only the first steps in ethical decision-making. Further steps, including the implementation of ethical considerations in real-life behavior, were not assessed in the current study. Although there is some research that links ethical sensitivity to decision-making outcome (Wittmer, 1992), this is a limitation of most ethics curriculum studies and as the drive to implement more programs of this nature grows, so to must the assessment of ethical behavior in an actual work-setting and not in a hypothetical instance. Although some interesting questions have been answered by the current research, a multitude of questions have been posed by the results obtained here. These questions remain to be explored both theoretically and empirically in further research.

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