

MORAL DISENGAGEMENT AND LOCUS OF CONTROL IN BUSINESS SCHOOL FRESHMEN: GENDER DIFFERENCES

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Abstract

There are many examples of unethical business conduct where individuals acted in their own self-interest, without taking into account their ethical obligations to others. Using freshmen business majors, this study demonstrates that females tend to have lower levels of moral disengagement than their male counterparts. Females also showed a stronger internal locus of control which was correlated with lower levels of moral disengagement. As the results indicate, there is a positive correlation between an internal locus of control and lower levels of moral disengagement. Further, application of Waidato Environment for Knowledge Analysis (WEKA) for the nine categories of moral disengagement successfully classified females far more often than males, based on their levels of moral disengagement.

Cases of unethical business practices which have resulted in loss of financial resources for innocent parties are far too common. Examples of business people in this venue include Kenneth Lay of Enron, Mark Schwartz and Dennis Kozlowski of Tyco and Bernard Madoff of the security investment firm of his own name. In each case, the individual acted in his own self-interest without considering ethical obligations to others. Lack of concern demonstrated by the disassociation of one's actions and the results of those actions can be fueled by higher levels of moral disengagement. Moral disengagement allows one to disassociate one's actions from the consequences of those actions and removes the restraint of self-regulation. In other words, as a result of becoming morally-disengaged, individuals are freed from personal guilt associated with acting unethically. There are numerous reports of negative consequences that result when individuals or groups act in a morally-disengaged manner.

For example, the accounting scandals that were unveiled in the early 2000s and the 2008 financial crisis were partially caused by CEOs, CPAs, bankers and other business people who benefitted themselves at the expense of others. In one instance, Fabrice ("Fabulous Fab") Tourre, a Goldman Sachs vice president, helped create a sub-prime mortgage investment deal called Abacus 2007-AC1. The debt obligation defrauded investors and secretly allowed billionaire John Paulson's hedge fund to make a billion dollars by betting against the fund (International Business Times, 2013).

Other examples of unethical business practices abound. One need look only at the results of the Enron and WorldCom scandals to observe the impact of unethical behavior on the lives of others. Both financial disasters resulted in prison sentences for some of the individuals involved, as well as financial losses for investors, employees and other parties. In another instance, Tyco's Mark Swartz and Dennis Kozlowski were convicted of dozens of felony charges, including awarding themselves over \$100 million in unauthorized compensation and defrauding investors of \$400 million. Enron executives Jeffrey Skilling and Andrew Fastow conspired to commit securities fraud and dealt in insider trading. WorldCom was the largest accounting scandal in U.S. history until Bernard Madoff's Ponzi scheme was unveiled. Madoff, who built an empire from his own investment firm and developed technology that would later become the NASDAQ (Bandler, Varchaver, Burke, Kimes and Abkowitz, 2009), is currently serving a 150-year sentence in a maximum security prison. Madoff admitted to perpetrating a massive Ponzi scheme which covered several continents and lasted decades, defrauding his clients of millions. In each of the above examples, highly educated individuals decided to take actions that at the very least demonstrated a cavalier attitude toward the welfare of others.

The men involved in these events were in the midst of promising careers built on their talent and dedication to their individual industries. These men were also well educated, with some earning a graduate degree from a prestigious university (e.g., Fabrice Tourre earned a master's from Stanford; Jeffrey Skilling and Andrew Fastow both received MBAs from Harvard). The aforementioned individuals are examples of people who participated in schemes that defrauded hundreds of investors. In order to do so, they seemingly internally justified their actions, despite their business experience, knowledge and education. Further, because fraudulent activities committed by men are far in excess of those committed by women, gender differences may exist in regard to justification of unethical behavior (e.g., moral disengagement).

Many of the people involved in the aforementioned scandals earned business degrees (either undergraduate or graduate) from prestigious universities. Presumably, their curriculum included some sort of ethics course(s). However, successful completion of ethics coursework may not have resulted in ensuring ethical behavior. It is possible that no amount of ethics education affects those who are predisposed to act unethically. The question then arises as to whether students who choose to major in business have a predisposition toward moral disengagement. Further, whether an individual has an internal or an external locus of control may contribute towards that person's ethical or unethical actions. The purpose of this paper is to report the results of a study measuring locus of control and moral disengagement in undergraduate business students. More specifically, this study will focus on measuring gender differences in levels of moral disengagement and locus of control of college freshmen studying business. Additionally, Waidato Environment for Knowledge Analysis (WEKA) is used to determine the ability to accurately determine the gender of a study participant based on their level of moral disengagement.

Prior Research

Albert Bandura developed moral disengagement theory in 1986. The theory explained that an individual's "self-regulatory mechanisms do not operate unless they are activated" (Bandura, 2002, p. 102). This theory describes how some individuals are able to excuse themselves from inflicting suffering upon others and how the use of self-deceptive psychological maneuvers make actions (or lack of actions) palatable. Bandura indicates that high levels of moral disengagement allow one to disassociate from the results or implications of one's actions

even if these actions negatively affect others. Three categories of mechanisms used by individuals to achieve this disassociation are proposed. The first is cognitively restructuring behavior demonstrated by moral justification, euphemistic labeling, and advantageous comparison. The second is obscuring or minimizing one's active role in behaviors by displacing responsibility, diffusing responsibility, and disregarding or distorting the consequences of an action. The last category focuses on the unfavorable acts or traits of those negatively affected by dehumanizing victims and attributing blame to them.

Bandura's theory of moral disengagement has been applied to societal issues such as terrorism (Maikovich, 2005), the perpetration of inhumanities (Bandura, 1990), cubicle warriors (Royackers and van Est, 2010), executioners (Osofsky, Bandura and Zimbardo, 2005) and school bullies (Obermann, 2011). The implosion of our economy in 2008 and commission of fraudulent financial activities in the early 2000s, has generated interest in applying Bandura's theory to the workplace.

Some studies have been industry specific such as in White, Bandura, and Bero (2009), which looked at moral disengagement exhibited by harmful corporate research related to tobacco, lead, vinyl chloride, and silicosis. Ntayi, Eyaa and Ngoma (2010) delved into the unethical practices of public procurement officers in Uganda. Other studies such as Claybourn's 2011 investigation questioned whether work related variables and moral disengagement influence work place harassment. Moore, Detert, Treviño, Baker and Mayer (2012) investigated why employees do bad things in the workplace. Barsky (2011) and Anand, Ashforth, and Joshi (2005) researched moral disengagement and how it relates to the rationalization of unethical or corrupt acts in the workplace. They claimed that, based on their study, virtually every organization suffers from fraud. Christian and Ellis (2014) found a strong relationship between turnover intentions and the use of moral disengagement to justify deviant behavior in the workplace.

Use of student subjects has also intensified. Using undergraduate students as subjects, Hinrichs, Wang, Hinrichs and Romero (2012) examined the relationship between leadership beliefs and moral disengagement through displacement of responsibility. Tsai, Wang and Lo (2014) explored the relationships among locus of control, moral disengagement in sports and rule transgression of athletes, using members of a college sports team as subjects. Previous research in the area of ethical development differences between business students and students in other majors has also occurred. For example, Neubaum, Pagell, Drexler, Mckee-Ryan and Larson (2009) found no differences in personal moral philosophy between business and non-business students. However, Segal, Gideon and Haberfield (2011) found that business students were more willing to accept unethical conduct than criminal justice majors and Cory and Hernandez (2014) found that business students demonstrated higher levels of moral disengagement than humanities majors.

Previous studies have also focused on moral disengagement in students, such as Detert, Treviño and Sweitzer's 2008 study, which compared moral disengagement tendencies among college freshmen majoring in business and those majoring in education. The study tested the relationships between empathy, moral identity, trait cynicism, and locus of control compared to higher levels of moral disengagement. Ultimately, the study found a negative association between empathy and moral identity, but a positive association between trait cynicism and locus of control. The results also indicated higher levels of moral disengagement in business majors as compared to education majors.

Other studies concentrated on a particular behavior when testing moral disengagement tendencies. For example, Bing, Davison, Vitell, Ammeter, Garner and Novicevic (2012) performed an experiment with college students involving academic cheating. Morgan and Neal (2011) compared students' perceptions of ethical breaches with freshmen and upper level students in information systems courses. Baird and Zelin (2009) used undergraduate students to study whether a person committing fraud in a situation involving obedience pressure was judged less harshly than an individual committing fraud of his or her own volition. Each year more studies are being conducted using undergraduate students to research not only how these students view and judge moral disengagement, but how those views and judgments differ over time and when compared to students across disciplines.

Many studies have addressed gender differences in ethicality. Although results have been mixed, several studies have found that females tend to act more ethically than males (Tse and Au, 1997; Robin and Babin, 1997; Ritter, 2006; Wang and Calvano, 2015; Comer and Vega, 2008, Rucinski and Bauch, 2006, Peterson, Rhoades and Vaught, 2001, and Treviño, 1986). However, other than Samnani, Salamon and Singh (2014), whose study found a complex three-way interaction between negative affect, moral disengagement and gender, and Detert, Treviño and Sweitzer (2008), where their male subjects were more likely to be morally disengaged than their female counterparts, there is a paucity of research relating to gender differences in moral disengagement.

Method

Moral disengagement allows individuals to disconnect their behavior from their internalized values and mores in order to commit unethical acts. As discussed previously, Bandura proposed three categories of mechanisms used by individuals to achieve this disconnect: (1) cognitively reconstructing one's behavior (moral justification, euphemistic labeling and advantageous comparison), (2) minimizing one's role in the behavior (displacement of responsibility, diffusion of responsibility and disregarding or distorting the consequences) and (3) focusing on the unfavorable acts or traits of those being negatively affected (dehumanization and attribution of blame).

The moral disengagement survey used in this study, which was adapted from Detert, Treviño, and Sweitzer (2008), provided students with a list of 32 statements. Their survey was adapted from one developed and used in multiple studies by Bandura and others. The survey was designed in order to measure each of the eight components of moral disengagement equally with four questions per component. Because this survey, or one very similar to it, has been used in previous research (e.g. Detert, Treviño, and Sweitzer, 2008, Bandura, Barbaranelli, Caprara, Barbaranelli and Pastorelli, 1996, Pelton, Gound, Forehand and Brody, 2004) and previously tested extensively for validity, no further tests of validity were deemed necessary. Given that this is an exploratory study, no specific hypotheses are developed. Rather, differences in moral disengagement between genders are determined. Results may lead to further research in this area and perhaps changes in the ethics curriculum.

Students were asked to determine the degree to which they agreed with each statement, using a 7-point Likert scale, with 1 indicating "strongly disagree" and 7 indicating "strongly agree." used in measures for the above components of moral disengagement. Questions 1 through 4 measure moral justification, 5 through 8 measure euphemistic labeling, 9 through 12 measure advantageous comparison, 13 through 16 measure displacement of responsibility, 17 through 20 measure diffusion of responsibility, 21 through 24 measure distortion of

consequences, 25 through 28 measure attribution of blame and 29 through 32 measure dehumanization. First, the responses were re-coded so that “neither” was coded as 0, and responses to the right of “neither” were coded as 1, 2 or 3. Responses to the left of “neither” were coded as -1, -2 or -3. Hence, “strongly disagree” became -3 and “strongly agree” became 3 and a positive score indicated a higher level of moral disengagement. Finally, the responses for all 32 questions were added to get a total moral disengagement score. In order to measure each component, the score for each question relating to it were summed (e.g., the score for moral justification was computed by adding the scores for questions 1 through 4, etc.). This resulted in a maximum score for each component of 12 and a minimum score of -12.

Locus of control refers to the extent to which individuals believe they can control events affecting their lives. People with an internal locus of control believe they have more control over their lives than people who have an external locus of control. Individuals with an internal locus of control see connections between their own actions and the outcomes of their behavior. Individuals with an external locus of control tend to believe environmental factors over which they have no influence, powerful others, chance or fate have more control over their lives; resulting in less personal control. The survey measuring locus of control consisted of 10 pairs of statements. Students were asked to indicate which of each pair of statements they agreed with more. Agreement with an internal locus of control statement was coded as -1 and agreement with an external locus of control statement was coded as 1. Therefore, higher scores indicate a greater external locus of control. The maximum score is 10 and the minimum score is -10. Previous research has shown a positive relationship between an external locus of control and higher levels of moral disengagement (Detert, Treviño and Sweitzer, 2008).

The sample of 109 consists of the responses for freshman business students taking freshman level classes. In total, 101 surveys were usable when measuring both locus of control and moral disengagement, for a response rate of 92.6%. There were 49 males in the sample and 52 females. The average age of the sample was 18.2 years.

Results

First the data were analyzed to determine the mean and standard deviation in the locus of control scores, by gender. A t-test between the two means indicates a higher level of internal locus of control for females. See Table 1.

Table 1

Gender	Number	Mean	Std. Dev.	T-test for difference
Males	49	-1.156	3.343	**2.42
Females	52	-2.808	3.367	

The above table provides the means and standard deviations of the locus of control measurement by gender. The maximum possible is 10 and the minimum is -10. The lower the average score, the higher the internal locus of control. Therefore, females have a stronger internal locus of control than males. However, on average, both genders have an internal locus of control.

**significant at 5%.

Next, t-tests were used to determine any differences in the eight components of moral disengagement between genders. Results are shown in Table 2 below. The numbers in parentheses indicate the questions that were summed to get the score for each component. Four

of the eight components are significantly different between the genders. Additionally, the total score for moral disengagement differs between genders.

Finally, the correlations between the total locus of control measurement and each component of moral disengagement were computed. This is presented in Table 3.

Table 2

Moral Disengagement Component	T-Test for Differences Between Genders
Moral Justification (1-4)	***4.25
Euphemistic labeling (5-8)	**2.29
Advantageous comparison (9-12)	**2.39
Displacement of responsibility (13-16)	*1.79
Diffusion of responsibility (17-20)	1.55
Distortion of consequences (21-24)	***3.52
Attribution of blame (25-28)	*1.93
Dehumanization (29-32)	1.08
Total score (sum 1 through 32)	***3.35

The above table provides the t-test for differences in moral disengagement between genders. In all cases, males demonstrate higher levels of moral disengagement than females.

*significant at .10 **significant at .05 ***significant at .01

Table 3

Moral Disengagement Component	Males	Females	Total Sample
Moral justification (1-4)	***.48	.22	***.41
Euphemistic labeling (5-8)	**.29	***.35	***.38
Advantageous comparison (9-12)	**.28	**.32	***.37
Displacement of responsibility (13-16)	**.28	.22	***.30
Diffusion of responsibility (17-20)	.27	.03	.18
Distortion of consequences (21-24)	.19	.22	***.28
Attribution of blame (25-28)	.20	***.38	***.32
Dehumanization (29-32)	.10	***.40	***.29
Total score (1 through 32)	***.39	***.33	***.44

The above table shows the Spearman correlation between each moral disengagement component and the locus of control. The stronger the internal locus of control, the lower the measure of moral disengagement. ***Probability of no correlation 1%; **Probability of no correlation 5%

The last step in the analysis was to use Waikato Environment for Knowledge Analysis (WEKA) to classify responses by gender. WEKA is a collection of machine learning algorithms for data mining tasks, which can be applied directly to a dataset. WEKA, which is widely used in both academia and business, contains tools for data pre-processing, classification, regression, clustering, association rules, and visualization. It is also well-suited for developing new machine learning schemes, and is “recognized as a landmark system in data mining and machine learning” (Hall, Frank, Holmes, Pfahringer, Reutemann and Witten, 2009, p. 10). The tools used in WEKA for calculating the confusion matrices were classification using the J48 tree decision

algorithm and 10 fold cross validation (all of which are directly available in the WEKA software).

Results are shown in the nine confusion matrices below. In eight of the matrices, females were correctly classified more often than males. Males were correctly classified slightly more often than females for Attribution of Blame.

Confusion Matrices

Moral Justification	Classified as Male	Classified as Female	Correct
Actually Male	23	26	46.9%
Actually Female	16	36	69.2%
Total Percent Correct			58.4%

Euphemistic Labeling	Classified as Male	Classified as Female	Correct
Actually Male	14	35	28.6%
Actually Female	14	38	73.1%
Total Percent Correct			51.5%

Advantageous Comparison	Classified as Male	Classified as Female	Correct
Actually Male	15	34	30.6%
Actually Female	12	40	76.9%
Total Percent Correct			54.5%

Displacement of Responsibility	Classified as Male	Classified as Female	Correct
Actually Male	25	24	51.0%
Actually Female	15	37	71.2%
Total Percent Correct			61.4%

Diffusion of Responsibility	Classified as Male	Classified as Female	Correct
Actually Male	18	31	36.7%
Actually Female	21	31	59.6%
Total Percent Correct			48.5%

Distortion of Consequences	Classified as Male	Classified as Female	Correct
Actually Male	25	24	51.0%
Actually Female	9	43	82.7%
Total Percent Correct			67.3%

Attribution of Blame	Classified as Male	Classified as Female	Correct
Actually Male	26	23	53.1%
Actually Female	25	27	51.9%
Total Percent Correct			52.5%

Dehumanization	Classified as Male	Classified as Female	Correct
Actually Male	10	39	20.4%
Actually Female	11	41	78.8%
Total Percent Correct			50.5%

Total	Classified as Male	Classified as Female	Correct
Actually Male	30	19	61.2%
Actually Female	17	35	67.3%
Total Percent Correct			64.4%

These students are on the thresholds of their academic careers and will eventually enter the workforce. They all plan to major in a business discipline (e.g., accounting, finance, management, marketing, etc.), although the specific area of interest may not yet be determined and certainly may change after completion of more of the business curriculum.

Discussion and Conclusions

Both genders were found to have an internal locus of control, although it was slightly stronger in females. However, on average, neither gender had a strong internal locus of control (Table 1). An individual with an internal locus of control believes they have more control over their life than someone with an external locus of control. Hence, the correlations found between internal locus of control and all but one of the moral disengagement components would seem to imply that individuals with an internal locus of control are less likely to act in a morally disengaged manner (Table 3). In seven of nine measurements of moral disengagement, males were found to be more disengaged than females (Table 2). These findings are not unexpected, based on results of previous studies that found females were more ethical than males, but these results are interesting due to the fact that each category of moral disengagement was studied separately. Finally, as shown in the confusion matrices, application of WEKA was successful in correctly identifying females between 51.9% and 82.7% of the time, with strongest overall results found for Distortion of Consequences (67.3%) and weakest for Diffusion of Responsibility (48.5%). Finally, WEKA correctly identified females more often than males for eight of the nine moral disengagement measurements. This is good evidence of a strong association between gender and the likelihood of the occurrence of morally disengaging behavior.

The individuals in this study were first semester college freshmen who have declared a business major and thus, after graduation, may be expected to eventually become business leaders. At a minimum, after graduation and entrance into the business discipline of their choice, the individuals will be confronted with ethical dilemmas and pressures. Given that it seems males in this group have a stronger tendency to act in a morally disengaged manner, the question then arises regarding how to best deal with this issue in the business curriculum. This group is

on the threshold of a university education which should include at least one course in ethics, but that course may not address this particular issue.

Some have expressed skepticism about the ability to teach ethics to college students, given that character is formed in childhood and previous researchers have questioned the effectiveness of business ethics education (Jewe, 2008; and Waples, Antes, Murphy, Connelly and Mumford , 2009). However, others have shown that ethics can be taught (Wang and Calvano, 2015; Altmeyer, Yang, Schallenkamp and DeBeaumont, 2014; and Ritter, 2006) but dealing with student moral disengagement has not truly been fully explored. This is an avenue for future research so that those who teach business ethics can incorporate this important element into the classroom.

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