



MATCHING THE 'KNOWING WHAT TO DO' AND THE 'DOING WHAT YOU KNOW' IN ETHICAL DECISION-MAKING

Chang-Yuan Loh*,
University of Sydney

Jin Boon Wong,
University of Sydney

ABSTRACT:

Corporate events in the past decades have contributed to a continued interest in the ethical decision-making of individuals in accounting. Much of the research in ethics and education have relied on the assumption that the individual's level of ethical development is related to his/her ethical behavior. Adapting a simplified version of Thorne's (2000) prescriptive/deliberative reasoning in a cheat-to-gain business scenario, a survey of accounting students suggest that ethical development may not be related to behavior. In addition, consistent with Thorne (2001), results suggest that even if individuals may 'know what to do' for the ideal ethical decision, they may not always actually choose that path or 'doing what they know'.

Keywords: ethical development, ethical behavior, prescriptive reasoning, deliberative reasoning

*Corresponding author email: c.loh@econ.usyd.edu.au

1. INTRODUCTION

A popular strand of research has focused on the ethical development and/or behavior of accounting and business practitioners (Forte 2004b; Armstrong, Ketz and Owsen 2003; Wu 2003; Thorne 2001; Ponemon 1990, 1992a, 1992b, 1993; Ponemon and Gabhart 1993; and Cohen, Pant and Sharp 1998). Accounting ethics research has typically characterised a relationship where higher ethical development is associated with ethical behavior. However, Ponemon (1993) and Bay and Greenberg (2001) reported results where ethical development did not exhibit a positive relationship with ethical behavior. This paper seeks to investigate these mixed findings concerning the relationship between ethical development and ethical behavior.

Results of this paper suggest, contrary to popular belief, that ethical development may not always be related to ethical behavior – although individuals in the study knew the ideal ethical choice, not all always chose to follow through with it. It is argued that this poses implications for researchers considering the use of ethical development as a proxy for ethical behavior and in turn for educators who advocated methods that may improve ethical development, but not necessarily behavior.

An outline of extant research and the development of the hypotheses are provided in Section 2 of this paper. The research method is outlined in Section 3, whilst Section 4

discusses the results. Section 5 summarizes this study's contributions, limitations and provides suggestions for future research. Section 6 concludes the paper.

2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1 Cognitive Moral Development

Contemporary accounting ethics research focuses on the concept of ethical development, influenced by the work of psychologists Lawrence Kohlberg and James Rest. Kohlberg (1958) defined ethical development as the 'Cognitive Moral Development' (CMD) of the individual, governing the thought processes involved in making a decision concerning right or wrong. Kohlberg's CMD implies that higher levels of ethical development should result in more ethical behavior. Kohlberg's CMD model categorised an individual's ethical development into three main stages – the pre-conventional level, conventional level, and the post-conventional level – with each stage reflecting a higher level of ethical development (Kohlberg 1979). At the pre-conventional level, an individual's ethical decisions are shaped by external authorities, self interest, and the rewards and punishment associated with various choice outcomes. Kohlberg regarded this as the lowest level of cognitive moral or ethical development. At the conventional level, Kohlberg states that an individual's ethical decision is shaped by considerations of the law and social norms. The post-conventional level is referred to by Kohlberg as the highest order of ethical development whereby an individual's ethical decision-making is influenced by universal principles of fairness, conscience and justice.

James Rest (1982) built on Kohlberg's work by developing a four-component model of the ethical decision-making process (as cited in Bebeau 2002) and an instrument to measure ethical development (Rest 1979; Rest, Narvaez, Thoma and Bebeau 1999). The four-component model describes the cognitive processes individuals use in ethical decision-making, that is, it depicts how an individual first identifies an ethical dilemma through to his/her intention and finally courage to behave ethically. Bebeau (2002) has summarized Rest's (1982) four-component model which is illustrated in Figure 1 (see below).

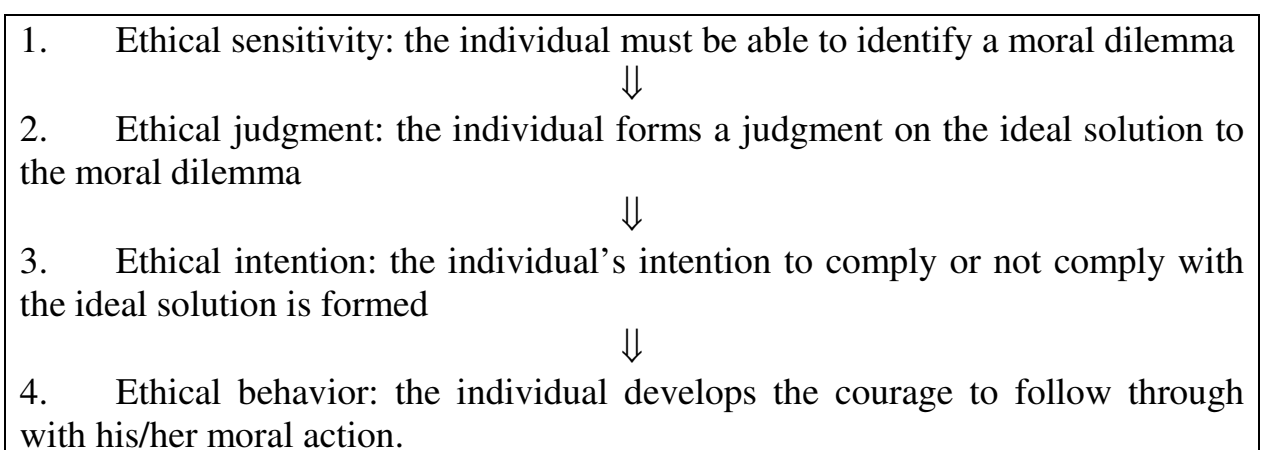


Figure 1: Rest's four-component model [based on Bebeau 2002]

Rest's (1982) four-component model (see above) illustrates the four stages an individual experiences in making an ethical decision. Stages 1 and 2 are determined by the individual's ethical development, and represent his/her ethical reasoning. However, actual behavior is reflected by Stages 3 and 4. If the individual lacks the necessary intention or

conviction, then even if he/she is aware of the 'right thing to do', he/she would not follow through with an ethical action

2.2 Differences between ethical development and behavior – considering Thorne's prescriptive 'judgment' and deliberative 'intention'

Ethical development is argued to be important to an understanding of behaviors within the accounting profession because many professional judgments are conditioned upon the beliefs and values of individual accounting practitioners (Ponemon 1992b). Correspondingly, improving the ethical development of individuals has been deemed to be desirable because of its association with better ethical decision choices (Blasi 1980; Ponemon 1990, 1992b), sound business practices (Forte 2004a), and the facilitation of trust in business relationships (Bews and Rossouw 2002).

A number of studies have sought to provide support for the existence of a positive relationship between ethical development and ethical behavior. For example, it has been found that higher levels of ethical development have affected auditors' sensitivity to ethical issues (Sweeney and Roberts 1997), and may also affect their propensity to provide fair and independent opinions and financial statements (Warming-Rasmussen and Windsor 2003).

However, a number of studies have found mixed results for this relationship between ethical development and behavior (Rest 1986, Kohlberg and Candee 1984).

Ponemon's (1993) observation of the behavior of university students found evidence of a "heretofore unknown, nonlinear association"¹ between subjects' ethical development and their ethical behavior². Although Ponemon found that ethical interventions (such as ethical education) improved the ethical development of accounting students, he found no support that ethical development was related to ethical behavior.

In an experimental study of 45 undergraduate business students, Bay and Greenberg (2001) found a *quadratic* relationship between ethical development and ethical behavior, where individuals at both high and low levels of ethical development were associated with unethical behavior. The authors' results suggested that the quadratic relationship was driven by males, with females exhibiting decreasing ethical behavior at higher levels of ethical development.

In another study, Thorne (2000) suggested the differences between ethical development and behavior may be due to that accounting students do not use their full cognitive moral capability when arriving at their choice of action in an ethical dilemma. Thorne (2000) describes ethical development as the highest cognitive moral capability to which an individual is *potentially capable* of using principled considerations in the resolution of ethical dilemmas. However, this differs the actual moral reasoning an individual applies to a specific dilemma.

Thorne's (2001) survey of 120 undergraduate accounting students found that the students use more principled considerations in their assessment of the ideal judgment of an

¹ As cited in Bay and Greenberg (2001, p. 370).

² The target University in Ponemon's study had been involved in trying out a system where the printing and distribution of subject notes was to be financed by the students. Given the voluntary nature of the system, students thus had the ability to 'free-ride' off the contributions of other students. Ponemon's paper studied the propensity of students to engage in such behavior.

accounting-specific ethical dilemma (prescriptive reasoning), as opposed to their actual intentions (deliberative reasoning). Thorne (2001) argues that whilst individuals are aware of ideal ethical solutions (as exhibited by reasonably high levels of ethical development), they may not necessarily apply these in their intention to behave ethically.

2.3 Hypotheses

The mixed findings of research to date indicate a need for further research before unequivocal conclusions can be made about the relationship between ethical development and ethical behavior. Hence Hypothesis 1 posits:

H1. Individuals with higher (lower) ethical development exhibit higher (lower) ethical behavior.

This paper also seeks to re-examine the relationship between ethical development and behavior by integrating Thorne's (2000) model of prescriptive and deliberative reasoning. To test this, Hypothesis 2 posits:

H2. There is expected to be a difference between individuals' prescriptive and deliberative reasoning.

3. RESEARCH METHODS

Subjects

The sample of this study consisted of 255 undergraduate accounting students, on average 22 years of age. Participation in the study was voluntary and the anonymous survey was administered by members unattached to the teaching unit at the end of class. After introducing the members of the research team, the lecturer then left the room. These steps were taken to avoid students participating in the study only to ingratiate themselves with their lecturers. Out of the 255 surveys distributed, 112 were returned, representing a response rate of 43.92%. Of the 112 responses, 101 were usable³. There were 45 males and 56 females.

The students included in this sample took a major in accounting and were in their second or third year of study⁴. As such, these students had been exposed to basic ethical issues, which is beneficial in the context of this study.

Procedure

A survey was used to test the hypotheses proposed in this study. Subjects were presented with a participation information sheet briefly describing the nature of the study, and were also

³ Responses that did not meet certain criteria were dropped. Such included: blank papers, inconsistent or randomised responses, and incomplete responses.

⁴ Based on the work of Ponemon (1993) and Bay & Greenberg (2001), students were chosen as the appropriate subjects for this study. A study of student behavior is argued to be important given the same cohort may form the next generation of practitioners. Studies have shown that the same cohort of students are likely to bring their personal values and ethical reasoning into the profession (Abdolmohammadi and Baker 2006), and low ethical sensitivity and/or unethical behavior early in their lives are likely to have serious repercussions later in their careers (Molyneaux 2004; Elias 2006; and Kidwell Jr. 2004).

requested to complete a series of questionnaires enclosed in a survey booklet. Demographics were also collected.

Ethical development was measured by the Defining Issues Test, DIT (Rest 1979). The independent variable, ethical behavior, was measured using survey responses to hypothetical scenarios, hereafter referred to as the Ethical Behavior Survey (EBS). Adapted from the experimental conditions used in Bay & Greenberg (2001), subjects in this study were treated to two hypothetical scenarios in the EBS in which they assumed the role of sales personnel in a trading business. Instructed that they would confront a reprimand for not meeting sales quotas, subjects in both scenarios are put in an agency position where they would have the incentive and means to behave unethically by cheating customers⁵. The two scenarios contained the same situation, with an exception; the second scenario was modified so that adhering to a code of ethics was explicitly stated as part of the business objectives. The purpose of highlighting the existence of an ethical dilemma in the scenario was to observe the expected before-and-after treatment where there a penalty was exacted for unethical behavior.

The EBS scenarios also employed a simplified version of the deliberative and prescriptive reasoning of Thorne (2001), by requiring subjects to provide (1) what they believed to be the ideal correct course of action (or ethical judgment)⁶, and (2) what they will actually choose to do (or ethical intention/ethical behavior)⁷.

4. RESULTS

Main Findings

A non-parametric Kruskal Wallis test was performed on the DIT scores and responses to the two scenarios (see Tables I and II below). Ethical development was divided into high, medium and low levels by their quartile scores and matched against the responses⁸. Although test ranks associated higher levels of ethical development with the ethical choices (higher ranks equate with lower ethical development), these were insignificant ($p < 0.05$). Hypothesis 1 is unable to be supported.

⁵ There are several reasons why a cheating scenario is employed over a complex accounting-related issue. Firstly, the simplicity of the scenario – a cheat-to-gain situation – ensured that there should be no confusion as to the existence of an ethical issue. Studies have shown that accounting students do not always recognise the existence of ethical issues in accounting (Mayper, Hoops, Pavur and Merino 2001). Secondly, cheating scenarios are commonly used to measure the ethical behavior of subjects (Bernardi, Metzger, Scofield Bruno and Hoogkamp 2004; Lawson 2004; West, Ravenscroft and Shrader 2004). Lastly, studies have also shown that some students believe cheating is necessary to succeed, and that even ethical people cheat. It has also been found that students who cheat once are likely to cheat in the workplace (Lawson 2004; Smith, Davy and Easterling 2004; Premeaux 2005).

⁶ See explanation for Rest's four-component model as illustrated by Figure 1, Appendix A.

⁷ Studies have suggested that survey responses often measure the ethical intention, rather than ethical behavior of subjects (O'Fallon and Butterfield 2005). However, some research has found that behavioral intentions can be likely predictors of their corresponding behaviors (Buchan 2005; and Uddin and Gillett 2002).

⁸ The process of categorising ethical development into three levels is consistent with Bay and Greenberg's (2001) study.

	Ethical rating (Case 1)	N	Mean Rank
DIT coding using quartile allocation	Ethical choice in both ideal and actual scenarios	49	51.36
	Unethical choice as ideal behavior, but actual is ethical	14	41.43
	Ideal choice is ethical, but actual is unethical	28	50.82
	Unethical choice in both ideal and actual	10	63.15
	Total	101	

Table I Kruskal Wallis ranks for Scenario 1

	Ethical rating (Case 2)	N	Mean Rank
DIT coding using quartile allocation	Ethical choice in both ideal and actual scenarios	74	49.09
	Unethical choice as ideal behavior, but actual is ethical	8	42.81
	Ideal choice is ethical, but actual is unethical	12	55.17
	Unethical choice in both ideal and actual	7	73.36
	Total	101	

Table II Kruskal Wallis ranks for Scenario 2

An analysis was then performed to examine any differences in subjects' ideal and actual choices of action. Figures 2 and 3 (below) show some interesting results. Both Figures show that given the choice of an ideal and actual course of action, although the majority of subjects answered ethically for both options of the scenarios, a number of subjects still chose to act unethically in both choices (comparing the first and last columns of these Figures). More interesting is the number of subjects who understood the correct course of action by choosing to behave ethically in the ideal situation, yet behaved unethically in their actual choice of action.

This is consistent with Thorne's (2001) study which found that subjects may be aware of the right choice but may choose not to behave ethically. A possible explanation was suggested by Lawson (2004), who found that some students believed it necessary to behave unethically to succeed in the real world. A seeming paradox also exists with the choices of some subjects who would have chosen to behave unethically, but actually chose the ethical course of action (third column from the left on both Figures). A possible explanation here may be the conscience-effect, or simply for a fear of 'getting caught'. The latter is clearly illustrated in Figure 6 where the presence of a possible penalty reduced the counts of unethical choices, whether it was ideal and/or actual.

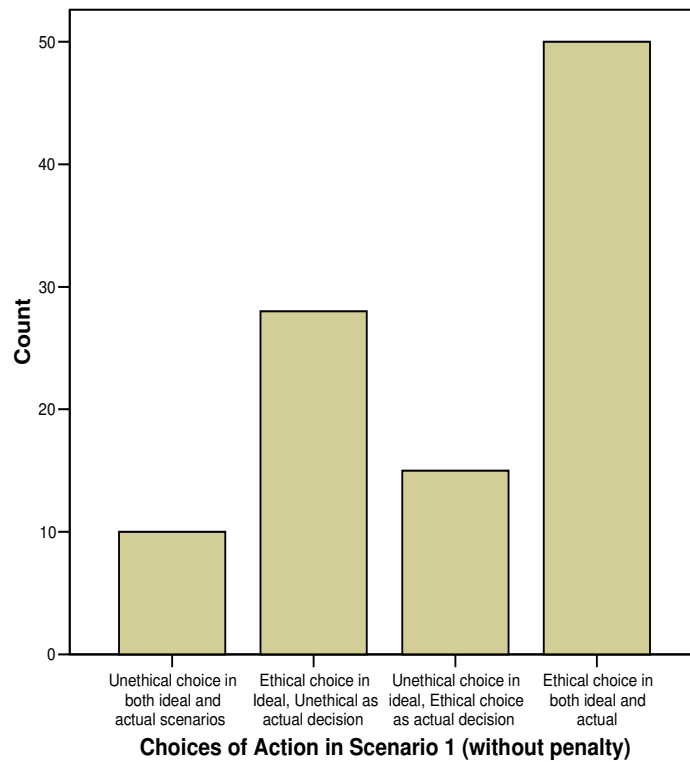


Figure 2 Choices of behavior in a scenario without penalties for unethical behavior

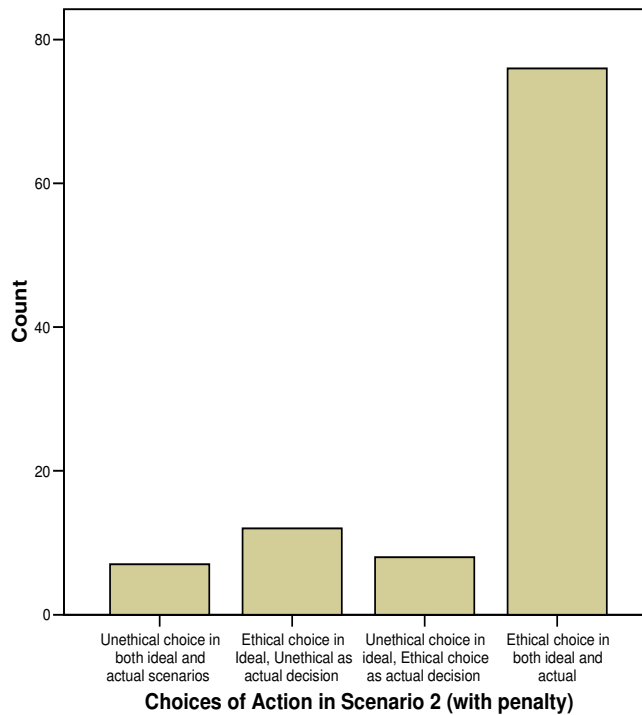


Figure 3 Choices of behavior in a scenario with penalties for unethical behavior

Figures 4 and 5(below) illustrate these changes in ethical behavior in detail. A McNemar test was conducted here to examine the relationships between the ideal choices and

actual choices of behavior both within each scenario and between the two scenarios. The purpose was to see if there are significant differences in the choices made if an individual is given the chance to make both an 'ideal' and 'actual' choice, and also whether these in turn change given a variation in circumstances (such as the existence of a penalty).

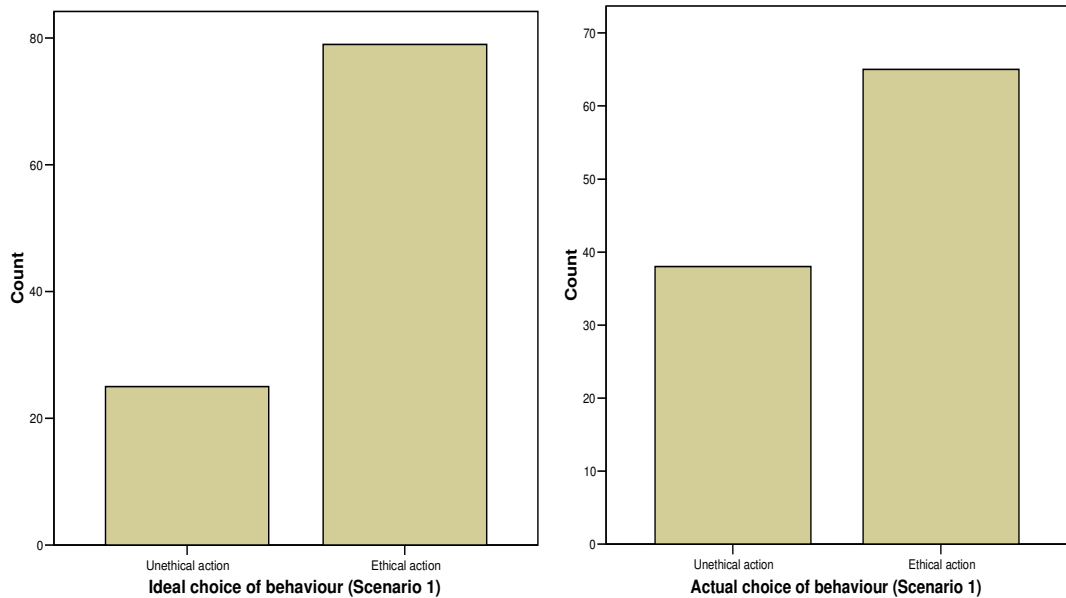


Figure 4 Contrasting ideal and actual choices of behavior in a scenario without penalties for unethical behavior

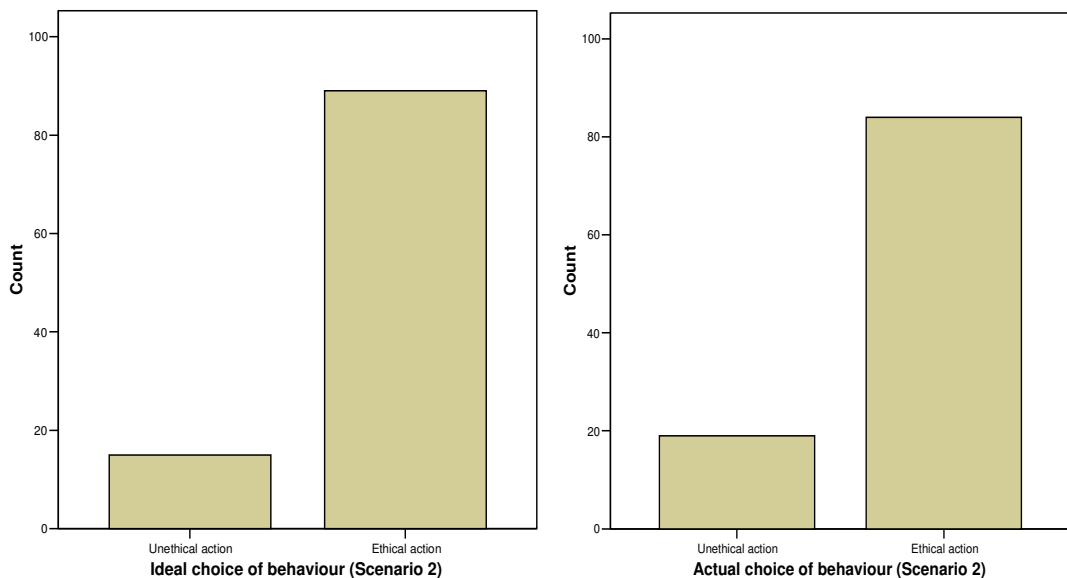


Figure 4 Contrasting ideal and actual choices of behavior in a scenario without penalties for unethical behavior

Table III (see below) suggests that the majority of subjects chose the ethical stance in each of the four pairings. Unethical choices are coded with a '0', and ethical choices with a '1'. From Table III, the means from the McNemar test show the proportion of subjects who made the ethical choice in each of the four choices. In scenario 1, 76% of subjects chose the ethical choice as their 'ideal' action, but only 63% actually made the ethical choice as their 'actual'

action. This can be compared with scenario 2, where the proportion of 'ideal' and 'actual' actions that were ethical was about the same at 80%, an increase from the first scenario.

	N	Mean	Std. Deviation	Minimum	Maximum
Ideal choice of behavior (Scenario 1)	104	.76	.429	0	1
Ideal choice of behavior (Scenario 2)	104	.86	.353	0	1
Actual choice of behavior (Scenario 1)	103	.63	.485	0	1
Actual choice of behavior (Scenario 2)	103	.82	.390	0	1

Table III McNemar descriptives for choices of behavior

The McNemar crosstabs from Tables IV to VII indicate that there were changes between choices from 'ideal' to 'actual' and from 'without penalty' to 'with penalty' scenarios.

Ideal choice of behavior (Scenario 1)	Actual choice of behavior (Scenario 1)	
	0	1
0	10	15
1	28	50

Table IV McNemar Crosstab – Ideal and actual choice switch in Scenario 1

Table IV (above) shows that 15 subjects who had made the unethical choice as their 'ideal' action switched to the ethical choice as their 'actual' action in scenario 1. A possible explanation could be that although the subjects would've liked to engage in 'cheat-to-gain' behavior, some cognitive process refrained them from committing to the unethical action. In contrast, almost twice as many subjects who had made the ethical 'ideal' choice actually chose to act unethically. This was significant at $p=0.033$ ($p<0.05$).

Ideal choice of behavior (Scenario 2)	Actual choice of behavior (Scenario 2)	
	0	1
0	7	8
1	12	76

Table V McNemar Crosstab – Ideal and actual choice switch in Scenario 2

Table V shows a marked decline in the frequencies of unethical choices in scenario 2, where a penalty for unethical behavior was present. Compared to Table IV, only 12 subjects switched from the 'ideal' ethical choice to the 'actual' unethical choice. However, this result was not significant at $p=0.252$ ($p>0.05$)⁹.

⁹ The non-significant differences here can be argued to be consistent with what one might expect of behavior where there is threat of a penalty for unethical behavior. Ideal and actual choices are thus unlikely to differ in such a situation.

Ideal choice of behavior (Scenario 1)	Ideal choice of behavior (Scenario 2)	
	0	1
0	9	16
1	6	73

Table VI McNemar Crosstab – Ideal action choice switch in Scenario 1 vs Scenario 2

Actual choice of behavior (Scenario 1)	Actual choice of behavior (Scenario 2)	
	0	1
0	14	24
1	5	60

Table VII McNemar Crosstab – Actual choice switch in Scenario 1 vs Scenario 2

Tables VI and VII compares how 'ideal' and 'actual' choices switch between ethical and unethical actions in scenarios 1 and 2 respectively. 16 subjects who believed the ideal course of action to be unethical in scenario 1 switched to the ethical course in scenario 2. On the other hand, a much smaller number of subjects made the switch from ethical to unethical as what they 'should' do. This is intuitive as the existence of a penalty is more likely to affect the decision to increase the likelihood to behave ethically than unethically (whether the choice is 'ideal' or 'actual'). This is supported in Table VII where only 5 subjects switched from the ethical choice to the unethical choice in the 'actual' action when moving from scenario 1 to scenario 2. Table VII also shows that the existence of a penalty for unethical behavior does seem to increase the likelihood for ethical behavior, with the numbers showing 24 subjects made the switch from an unethical choice to the ethical choice in their actual' course of action. Both Tables VI and VII were significant at $p=0.026$ ($p<0.05$) and $p=0.00$ ($p<0.01$) respectively.

5. DISCUSSION AND IMPLICATIONS

This study makes two contributions to the literature on accounting ethics. Firstly, this is among the first of studies to find results consistent with Ponemon's (1993) and Bay and Greenberg's (2001) findings in being unable to support a linear relationship between ethical development and ethical behavior. Secondly, this study also finds results similar to those found in Thorne (2001), which supports the reasoning that although individuals may know what to do for the ideal ethical outcome, they may not necessarily actually intend to do 'what they know'.

These results not only have implications for the continued use of ethical development as a proxy for ethical behavior, but also suggest that education should not just seek to improve ethical development but also seek ways to align individuals' ethical intentions with their ethical judgments. Notwithstanding these, a limitation of this study lies in the use of accounting students in a relatively small sample. Additional studies would be useful to strengthen the results.

6. CONCLUSION

Overall, this study highlights the need for further research into this important aspect of behavior in an accounting setting. There are significant tensions and gaps in the accounting ethics literature warranting future scholarly examination and discussion.

It has been proposed that academics and practitioners play a crucial role in building ethical communities that improve the ethical decision-making of individuals (Forster 1998; and Gaa and Thorne 2004). In particular, in light of recent corporate events, the International Federation of Accountants (IFAC) has released an exposure draft on business ethics that is based heavily on Kohlberg's and Rest's ethical development model¹⁰. However, the results of this study suggest that ethical development may not be related to ethical behavior. Although it would be unwise to dismiss the relevance of ethical development, this study suggests that care needs to be taken before unequivocally using ethical development as a proxy for ethical behavior.

REFERENCES

- Abdolmohammadi, M. J. and Baker, D.R.: 2006, "Accountants' value preferences and moral reasoning", *Journal of Business Ethics*, 69, 11-25.
- Armstrong, M.B., Ketz, J.E. and Owsen, D.: 2003, "Ethics education in accounting: moving toward ethical motivation and ethical behavior", *Journal of Accounting Education*, 21, 1-16.
- Bay, D.D., and Greenberg, R.R.: 2001, "The relationship of the DIT and behavior: a replication", *Issues in Accounting Education*, 16 (3), 367-380.
- Bebeau, M.J.: 2002, "The Defining Issues Test and the Four Component Model: contributions to professional education", *Journal of Moral Education*, 31 (3), 271-295.
- Bernardi, R.A., Metzger, R.L., Scofield Bruno, R.G., Wade Hoogkamp, M.A., Reyes, L.E. and Barnaby, G.H.: 2004, "Examining the decision process of students' cheating behavior: an empirical study", *Journal of Business Ethics*, 50 (4), 397-414.
- Bews, N.F. and Rossouw, G.J.: 2002, "A role for business ethics in facilitating trustworthiness", *Journal of Business Ethics*, 39 (4), 377-390.
- Blasi, A.: 1980, "Bridging moral cognition and moral action: A critical review of the literature", *Psychological Bulletin*, 88, 1-56.
- Buchan, H.F.: 2005, "Ethical decision making in the public accounting profession: an extension of Ajzen's Theory of Planned Behavior", *Journal of Business Ethics*, 61, 165-181.
- Cohen, J., Pant L. and Sharp, D.: 1998, "The effect of gender and academic discipline diversity on the ethical evaluations, ethical intentions and ethical orientation of potential public accounting recruits", *Accounting Horizons*, 12 (3), 250-270.
- Elias, R.Z.: 2006, "The impact of professional commitment and anticipatory socialization on accounting students' ethical orientation", *Journal of Business Ethics*, 68, 83-90.
- Forster, K.: 1998, "Promoting the ethical school: professional ethics for school administrators", Discussion paper presented to the symposium on The Ethics of the Teaching Profession, University of Technology Sydney, December 10.
- Forte, A.: 2004a, "Antecedents of managers in moral reasoning", *Journal of Business Ethics*, 51 (4), 315-347.
- Forte, A.: 2004b, "Business ethics: a study of the moral reasoning of selected business managers and the influence of organizational climate", *Journal of Business Ethics*, 51 (2), 167-173.
- Gaa, J.C. and Thorne, L.: 2004, "An introduction to the special issue on professionalism and ethics in accounting education", *Issues in Accounting Education*, 19 (1), 1-6.
- International Federation of Accountants (IFAC): 2003, "Rebuilding public confidence in financial reporting – an international perspective", August.
- International Federation of Accountants (IFAC): 2006, "Approaches to developing and maintaining professional values, ethics and attitudes", International Accounting Education Standards Board, Exposure Draft, September.
- Kidwell Jr, R.E.: 2004, "'Small' lies, big trouble: the unfortunate consequences of resume padding, from Janet Cooke to George O'Leary", *Journal of Business Ethics*, 51 (2), 175-184.
- Kohlberg, L.: 1958, "The development of modes of moral thinking and choice in the years ten to sixteen", unpublished PhD Dissertation, University of Chicago.
- Kohlberg, L.: 1979, *The meaning and measurement of moral development*, Worcester, MA: Clark University Press.

¹⁰ "Approaches to Developing and Maintaining Professional Values, Ethics and Attitudes", International Accounting Education Standards Board, Exposure Draft, International Federation of Accountants, Sep 2006.



- Kohlberg, L. and Candee, D.: 1984, "The relationship of moral judgment to moral action", in W.M. Kurtines and J.L. Gewirtz (Eds.), *Morality, Moral Behavior and Moral Development*, New York: John Wiley & Sons, 52-73.
- Lawson, R.A.: 2004, "Is classroom cheating related to business students' propensity to cheat in the 'Real World'?", *Journal of Business Ethics*, 49 (2), 189-199.
- Luthar, H.K. and Karri, R.: 2005, "Exposure to ethics education and the perception of linkage between organizational ethical behavior and business outcomes", *Journal of Business Ethics*, 61, 353-368.
- Mayper, A.G., Hoops, W., Pavur, R. and Merino, B.D.: 2001, "Accounting: a moral discipline?" Proceedings of the Asian-Pacific Interdisciplinary Research on Accounting Conference, Adelaide, South Australia, Australia, (July), Adelaide University.
- Molyneaux, D.: 2004, "After Andersen: an experience of integrating ethics into undergraduate accountancy education", *Journal of Business Ethics*, 54, 385-398.
- O'Fallon, M.J. and Butterfield, K.D.: 2005, "A review of the empirical ethical decision-making literature : 1996-2003", *Journal of Business Ethics*, 59, 375-413.
- Ponemon, L.A.: 1990, "Ethical judgements in accounting: A cognitive-developmental perspective", *Critical Perspectives in Accounting*, 1 (2), 191-215.
- Ponemon, L.A.: 1992a, "Ethical reasoning and selection socialization in accounting", *Accounting, Organizations and Society*, 17 (3/4), 239-258.
- Ponemon, L.A.: 1992b, "Auditor underreporting of time and moral reasoning: an experimental-lab study", *Contemporary Accounting Research*, 9 (1), 171-189.
- Ponemon, L.A.: 1993, "Can ethics be taught in accounting?", *Journal of Accounting Education*, 11, 185-209.
- Ponemon, L.A. and Gabhart, D.R.L.: 1993, "Factors affecting ethical reasoning in accounting and auditing", in *Ethical reasoning in accounting and auditing*, (Chapter 2), CGA-Canada Research Foundation, 19-35.
- Premeaux, S.R.: 2005, "Undergraduate student perceptions regarding cheating: Tier 1 versus Tier 2 AACSB accredited business schools", *Journal of Business Ethics*, 62, 407-418. .
- Rest, J.R.: 1979, *Revised manual for the defining issues test: An objective test of moral judgment development*, Minneapolis, MN: Moral Research Projects.
- Rest, J.: 1986, *Moral development: advances in theory and practice*, New York: Praeger.
- Rest, J. R., Narvaez, E., Thoma S.J. and Bebeau, M.J.: 1999, "DIT2: Devising and testing a revised instrument of moral judgment", *Journal of Educational Psychology*, 91 (4), 644-659.
- Smith, K.J., Davy, J.A. and Easterling, D.: 2004, "An examination of cheating and its antecedents among marketing and management majors", *Journal of Business Ethics*, 50 (1), 63-80.
- Sweeney, J. T. and Roberts, R.W.: 1997, "Cognitive moral development and auditor independence", *Accounting, Organizations and Society*, 22, 337-352.
- Thorne, L.: 1999, "An analysis of the association of demographic variables with the cognitive moral development of Canadian accounting students", *Journal of Accounting Education*, 17, 87-99.
- Thorne, L.: 2000, "The development of two measures to assess accountants' prescriptive and deliberative moral reasoning", *Behavioral Research in Accounting*, 12, 139-169.
- Thorne, L.: 2001, "Refocusing ethics education in accounting: an examination of accounting students' tendency to use their cognitive moral capability", *Journal of Accounting Education*, 19, 103-117.
- Uddin, N. and Gillett, P.R.: 2002, "The effects of moral reasoning and self-monitoring on CFO intentions to report fraudulently on financial statements", *Journal of Business Ethics*, 40 (1), 15-32.
- Warming-Rasmussen, B. and Windsor, C.A.: 2003, "Danish evidence of auditors' level of moral reasoning and predisposition to provide fair judgments", *Journal of Business Ethics*, 47 (2), 77-87.
- West, T., Ravenscroft, S.P. and Shrader, C.B.: 2004, "Cheating and moral judgment in the college classroom: a natural experiment", *Journal of Business Ethics*, 54, 173-183.
- Wu, C-F.: 2003, "A study of the adjustment of ethical recognition and ethical decision-making of managers-to-be across the Taiwan Strait before and after receiving a business ethics education", *Journal of Business Ethics*, 45 (4), 291-307.

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