

## **CULTURAL VALUES AND COGNITIVE MORAL DEVELOPMENT OF ACCOUNTING ETHICS: A CROSS-CULTURAL STUDY**

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Taking accounting students in the US and Taiwan as research subjects, the relationship between cultural values and cognitive moral development was explored. The accounting-specific Defining Issues Test (Thorne, 2000) was used to assess participants' cognitive moral development, and the Values Survey Module (VSM 94; Institute for Research on Intercultural Cooperation) was used to determine participants' cultural values. Research results indicate significant differences in cognitive moral development between the US and Taiwanese accounting students. To some extent, cultural values had a significant influence on students' moral development of ethics within accounting.

*Keywords:* cognitive moral development, cultural values, Hofstede, accounting ethics, cross-cultural.

After some significant financial scandals around the world, such as those involving Enron, WorldCom, and Arthur Andersen, various United States bodies have appealed to the public for a greater emphasis on accounting ethics. A wave of discussion involving accounting ethics has taken place (Haas, 2005). Meanwhile, due to the current trend toward globalization of the business environment, accounting ethics can no longer be considered a problem within only a single business or nation. Accounting professionals, as employees of international businesses or international affiliated accounting firms, offer financial information to their stakeholders around the world and facilitate the development of international businesses (McPhail, 1999). As an increasing

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number of nations with diverse cultural and historical experiences interact in the global economy, the misunderstandings of accounting practices because of different ethical perceptions are magnified. It is a challenge for accounting professionals to understand the differences in perceptions of accounting ethics cross-culturally.

As most accounting students will be future accounting professionals, the impact of culture on accounting students' moral development should be an important topic in accounting ethics education. Related issues have also been studied by a number of researchers (e.g., Thorne, 2000; Tsui, 1996; Venezia, 2005); however, much remains to be learned about how cultural values will influence cognitive moral development. Among the published cross-cultural studies, there are no articles to be found in which the relationship between an individual's cultural values and his/her moral development is examined. Therefore, the purpose in this study was to explore the relationship between cultural values and cognitive moral development of accounting ethics by conducting a cross-cultural comparative analysis of undergraduate accounting students' cognitive moral development in the United States and Taiwan.

## LITERATURE REVIEW

### COGNITIVE MORAL DEVELOPMENT

Kohlberg's (1981) cognitive moral development theory is the most widely used theory in analyzing individuals' moral development. Kohlberg's theory has also been used extensively to examine the levels of moral development of accounting students and professionals (Jones, Massey, & Thorne, 2003). According to Kohlberg's theory, *cognitive moral development is the extent to which consideration should ideally be given to resolve an ethical dilemma*, and it describes *the sophisticated cognitive moral structure that an individual is potentially capable of utilizing* (Thorne, 2000). Moral development can be divided into three major levels and six stages: (1) preconventional level (including stage one: obedience and punishment orientation, and stage two: instrumental purpose and exchange); (2) conventional level (including stage three: interpersonal accord and conformity, and stage four: social accord and system maintenance); and (3) postconventional level (including stage five: social contract, utility, individual rights, and stage six: universal ethical principles). Individuals respond differently to ethical issues in accordance with their stage of moral development; those who are at a higher moral stage are more likely to resist the pressure of conforming to the judgments of others.

To measure an individual's cognitive moral development, the Defining Issues Test (DIT) developed by Rest (1979) has traditionally been employed in moral development research (Thorne, 2000). The DIT is a set of ethical dilemmas to

which an individual responds, and the total of these responses yields a Principled Score (P-score). The higher the P-score, the higher the stage of ethical judgment development (Rest, 1979). A number of researchers have relied on the DIT to assess moral development of accounting students or professionals (e.g., Earley & Kelly, 2004), and some have employed it in cross-cultural contexts (e.g. Tsui & Windsor, 2001; Venezia, 2005). These studies have revealed that accounting students in different countries are likely to have some variation in moral reasoning abilities.

The DIT examines individuals' ethical development by applying general hypothetical scenarios of ethical dilemmas. However, some researchers argue that introducing accounting-specific scenarios into the DIT instrument may provide better outcomes (Earley & Kelly, 2004; Thorne, 2000). Scenarios based on realistic cases may generate involvement by respondents that facilitates the elicitation of realistic responses, a degree of involvement that is perhaps impossible with the traditional DIT. Ethical reasoning may be affected by individuals' professions, disciplines, and professional rules (Thorne, 2000; Trevino, 1986). Therefore, when accounting professionals encounter ethical dilemmas in accounting activities, the formulation and exercise of professional judgment will be integrated into their moral development. Because of this concern, some researchers have designed realistic accounting scenarios in the moral reasoning instrument to elicit more representative reasoning processes. Taking the traditional DIT as a model, Thorne (2000) developed an accounting-specific moral reasoning test which is an instrument with realistic cases that evoke accounting professionals' responses.

### CULTURAL VALUES

Hofstede (1983) defines *culture* as *the collective programming of the mind which distinguishes the members of one category of people from those of another*, and suggests that there are five dimensions of cultural values: (1) power distance (PDI); (2) uncertainty avoidance (UAI); (3) individualism/collectivism (IDV); (4) masculinity/femininity (MAS); and (5) short-/long-term orientation (LTO) (Hofstede & Hofstede, 2005). Hofstede's research has been widely used in cross-cultural studies of business situations. The five dimensions can explain how management behaviors are affected by specific cultural dimensions and also help managers to better understand the potential problems of managing subordinates from different cultural backgrounds.

Power distance is the extent to which individuals in a society accept inequality in power and still consider it normal. Individuals with higher power distance accept the inequality of power in their society. Uncertainty avoidance is the extent to which individuals become nervous in unstructured and unpredictable situations. Individuals with higher uncertainty avoidance are less likely to take

risks. The individualism/collectivism dimension refers to the extent to which people consider themselves as parts of a group. With individualism, the ties between individuals are loose, and everyone is expected to look after himself/herself; with collectivism, by contrast, people from birth onward are integrated into strong, cohesive in-groups. Masculine cultures are those that value material achievement and assertiveness, whereas feminine cultures tend to place more value on qualities such as interpersonal relationships and concern for the weak. Long-term orientation represents the fostering of virtues oriented towards future rewards, in particular, perseverance and thrift; whereas short-term orientation represents the fostering of virtues related to the past and present, in particular, preservation of face, and fulfilling social obligations (Hofstede & Hofstede, 2005).

Culture has been considered an essential environmental factor that affects the accounting system of a country but also influences the way an individual processes accounting information (Tsui, 1996). Hofstede's five dimensions of cultural values provide a basis to analyze the relationship between culture and ethical perceptions. Individuals with different levels of cultural values will have different ethical values and consequently exhibit different cognitive moral development. Supporting this claim, a body of cross-cultural studies has provided the evidence that culture will influence cognitive moral development for accounting professionals' or students' moral development (e.g., Tsui & Windsor, 2001). In general, research findings have suggested that accounting students in different countries might, to some extent, have different levels of moral development. There seems to be a significant relationship between cultural values and individuals' cognitive moral development within accounting ethics.

## METHOD

### INSTRUMENTS

To measure accounting students' ethical development, in this study the accounting-specific Defining Issues Test (ADIT) developed by Thorne (2000) was used. The ADIT takes the DIT as a prototype. Abandoning the traditional scenarios used in the DIT, Thorne selected realistic accounting-specific cases as the scenarios in the ADIT instrument. Calculation of an individual's moral development level is the same as that of P-score in the DIT. In addition, the Values Survey Module 1994 (VSM 94), developed by the Institute for Research on Intercultural Cooperation (IRIC), was used in this study to determine accounting students' scores in each of Hofstede's five cultural dimensions. The VSM 94 is considered to be the best validated and most efficient instrument for arriving at an empirical replication of the five dimensions of cultural values (Bearden, Money, & Nevins, 2006).

Moreover, to ensure that respondents in Taiwan and the United States had the same sensitivity for each scenario and question, the instruments were translated and back translated between Chinese and English by the researcher and two other Taiwanese bilingual accounting faculty members to maintain the linguistic equivalence. A Chinese language version was administered in Taiwan, and an English version was used in the US.

## **SUBJECTS**

Undergraduate junior and senior accounting students were selected from comprehensive universities in the US and Taiwan as research subjects. These accounting students had reached adequate levels in their accounting studies to complete the accounting-specific instruments used in the study. Anonymous questionnaires were delivered to these selected accounting students. The students were told that their participation was voluntary and their responses would remain anonymous. They were also informed that there were no absolutely right or wrong answers, and that they simply needed to respond based on their own thoughts and beliefs regarding each scenario or question.

The questionnaires were distributed to 492 accounting students at two universities in the Midwestern US, and to 554 accounting students at two universities in southern Taiwan. A total of 223 US students, and 449 Taiwanese students returned the questionnaires. After discarding incomplete responses, the results from 215 US students and 427 Taiwanese students were used.

## **RESULTS AND DISCUSSION**

### **CULTURAL VALUE SCORES OF SAMPLES**

Since Hofstede's study is now more than 20 years old and the research subjects were IBM employees, Hofstede's results may not be current enough to apply to this study. The VSM 94 can help to determine whether or not the differences in cultural values of the US and Taiwanese accounting students are similar to Hofstede's earlier findings. Table 1 presents the mean scores of the five cultural dimensions for accounting students from the US and Taiwan along with the cultural scores reported by Hofstede and Hofstede (2005). Because the research subjects in this study were different from those of Hofstede's research, it was expected that the mean scores in this study would not be the same as Hofstede's mean scores. However, Table 1 reveals that the relative position of the US and Taiwan remains consistent with results from Hofstede's research; accounting students in the US presented lower scores on PDI, UAI, and LTO dimensions and higher scores on IDV and MAS dimensions than did accounting students in Taiwan.

**TABLE 1**  
COMPUTED CULTURAL VALUE SCORES OF THE FIVE HOFSTED E DIMENSIONS

Country	PDI	UAI	IDV	MAS	LTO
US					
Hofstede's results	40	46	91	62	29
Samples in this study	30	57	98	18	42
Taiwan					
Hofstede's results	58	69	17	45	87
Samples in this study	42	62	80	2	55

### COGNITIVE MORAL DEVELOPMENT OF ACCOUNTING ETHICS

Table 2 shows a summary of the P-scores measured by the ADIT for different respondent groups. The results in Table 2 show that the overall mean of P-scores for US students is 43.22 while the mean Taiwanese students' P-score is 35.37. A *t* test for independent samples also reveals a statistically significant difference in accounting students' overall P-score means between the United States and Taiwan ( $t = 6.97, p < 0.01$ ). Therefore, there is a significant difference in cognitive moral development of accounting ethics between accounting students from the United States and those from Taiwan.

**TABLE 2**  
SUMMARY OF THE MEANS OF P SCORES

P-score	United States	Taiwan
Mean	43.22	35.37
<i>SD</i>	13.07	12.89
Median	43.33	33.33

Venezia (2005) has used the DIT to measure accounting students' moral development and indicated significant differences between the US and Taiwanese accounting students. However, it is interesting that the relative scores represented in her research are reversed in the current study. Venezia reported that the mean P-score of accounting students in Taiwan was higher than that in the US, whereas this study with the ADIT shows higher P-score means for US accounting students than their Taiwanese counterparts. A possible interpretation is that accounting students in the US and Taiwan might perceive accounting-specific ethical dilemmas differently from generic ethical dilemmas.

### RELATIONSHIP BETWEEN CULTURAL VALUES AND COGNITIVE MORAL DEVELOPMENT

As there is a significant difference in ethical development between US and Taiwanese accounting students, this study was designed to identify which cultural

dimensions exhibit the most significant effects. To verify the relative influence of cultural values, a regression equation was built that takes all accounting students' P-scores as the dependent variable, the five cultural values as independent variables, and age, gender, exposure to an ethics course, and religious orientation as control variables. Table 3 shows the results of the regression analysis. The regression equation was significant though the coefficient of determination was quite low. The low value of the coefficient of determination may make one doubt the explanatory ability of the regression equation. However, instead of building a model that can explain the antecedents of ethical development, the main purpose of the present regression analysis was to examine the possible relationships between the five cultural values and accounting students' moral development.

**TABLE 3**  
**REGRESSION RESULT OF CULTURAL EFFECTS ON COGNITIVE MORAL DEVELOPMENT**

	Standardized Coefficients	<i>t</i>	Sig.
PDI	-0.042	-1.05	0.295
UAI	-0.128***	-3.11	0.002
IDV	0.043	1.05	0.294
MAS	-0.009	-0.22	0.826
LTO	0.006	0.14	0.886
Gender	-0.041	-1.01	0.311
Age	0.006	0.14	0.891
Ethics course	0.086**	2.07	0.039
Religion	0.188***	4.53	0.000

$R^2 = 0.081$ ,  $\text{adj } R^2 = 0.067$ ,  $F = 5.726^{***}$ , D-W value = 1.880

\*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Results in Table 3 indicate that among the five cultural dimensions, only UAI has significant effects on accounting students' moral development; the influences of the other four cultural dimensions are not significant in this study. Therefore, the uncertainty avoidance has more significant influences on moral development than the other four cultural values, whereas the power distance and individualism exhibit moderate effects. However, masculinity and long-term orientation barely influence accounting students' moral development. Accounting students with higher UAI and PDI scores and with lower IDV scores seem to have lower ethical reasoning ability in this study.

Higher uncertainty avoidance and power distance lead to increased reliance on work superiors, formal rules and regulations, and less inclination to think about and judge possible alternatives (Hofstede & Hofstede, 2005; Tsui & Windsor, 2001). Individualists tend to believe that personal interests are more important than group interests and have a high need for personal achievement, while

collectivists' identities are based on the social system rather than on the self (Hofstede & Hofstede, 2005). As ethical reasoning is the judgment about right and wrong and moral development is the level of maturity of ethical reasoning, it was expected that an individual with higher UAI and PDI scores and with lower IDV scores would have lower cognitive moral development. Since Taiwanese accounting students have higher UAI and PDI scores as well as lower IDV scores than the US students, their mean P-scores are lower than those of their US counterparts.

The extremely small influences of MAS and LTO on moral development may be because they will have more influences on an individual's ethical intention or behavior than his/her moral development. Based on the definitions of MAS and LTO, while responding to an ethical dilemma, masculinity tends to value material achievement and assertiveness, whereas femininity tends to place more value on qualities such as interpersonal relationships. Long-term oriented individuals tend to persevere through slow results that promise long-term achievement, whereas short-term oriented individuals tend to cut corners to achieve immediate results (Hofstede & Hofstede, 2005). As these two cultural dimensions seem to be more dominant in an individual's consideration for behaving ethically or unethically than in his/her judgment about right and wrong, it is reasonable to suggest that MAS and LTO will have more influences on an individual's ethical intention or behavior than his/her moral development.

## CONCLUSIONS

This cross-cultural study involved a comparison of the cognitive moral development of US and Taiwanese accounting students. The results reveal that uncertainty avoidance influences ethical development more significantly than the other four cultural values; masculinity and long-term orientation dimensions barely influence accounting students' cognitive moral development. Accounting students with higher UAI and PDI scores and with lower IDV scores revealed lower levels of moral development. While, in the literature, scant attention is paid to the relationship between cultural values and cognitive moral development of accounting ethics, the main contribution of this study is to help researchers and educational institutions ascertain how cultural values influence students' cognitive moral development of accounting ethics.

Future research can expand this study to more countries for further understanding of the influences of individuals' cultural values on moral development. Moreover, although the VSM 94 is widely used in culture-related research, some researchers contest its validity and its suitability for analysis on individual levels, and emphasize the necessity of developing effective instruments to measure individual cultural values. Future researchers can employ multid-

mensional measures to assess individual cultural values. This should be helpful in identifying the influences of cultural values on cognitive moral development more effectively.

## REFERENCES

- Bearden, W. O., Money, R. B., & Nevins, J. L. (2006). Multidimensional versus unidimensional measures in assessing national culture values: The Hofstede VSM 94 example. *Journal of Business Research*, *59*(2), 195-203.
- Earley, C. E., & Kelly, P. T. (2004). A note on ethics educational interventions in an undergraduate auditing course: Is there an "Enron effect"? *Issues in Accounting Education*, *19*(1), 53-71.
- Haas, A. (2005). Now is the time for ethics in education. *The CPA Journal*, *75*(6), 66-68.
- Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, *14*(2), 75-89.
- Hofstede, G., & Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind* (2nd ed.). New York: McGraw-Hill.
- Jones, J., Massey, D. W., & Thorne, L. (2003). Auditors' ethical reasoning: Insights from past research and implications for the future. *Journal of Accounting Literature*, *22*, 45-103.
- Kohlberg, L. (1981). *The meaning and measurement of moral development* (Heinz Werner Lecture Series, Vol. 13). Worcester, MA: Clark University Press.
- McPhail, K. (1999). The threat of ethical accountants: An application of Foucault's concept of ethics to accounting education and some thoughts on ethically educating for the other. *Critical Perspectives on Accounting*, *10*(6), 833-866.
- Rest, J. R. (1979). *Development in judging moral issues*. Minneapolis, MN: University of Minnesota Press.
- Thorne, L. (2000). The development of two measures to assess accountants' prescriptive and deliberative moral reasoning. *Behavioral Research in Accounting*, *12*, 139-170.
- Trevino, L. K. (1986). Ethical decision-making in organizations: A person-situation interactionist model. *Academy of Management Review*, *11*(3), 601-617.
- Tsui, J. S. L. (1996). Auditors' ethical reasoning: Some audit conflict and cross-cultural evidence. *The International Journal of Accounting*, *31*(1), 121-133.
- Tsui, J. S. L., & Windsor, C. (2001). Some cross-cultural evidence on ethical reasoning. *Journal of Business Ethics*, *31*(2), 143-150.
- Venezia, C. C. (2005). The ethical reasoning abilities of accounting students. *Journal of American Academy of Business*, *6*(1), 200-207.



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