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Culture and gender effects on ethical reasoning in an auditing context: a comparison of Canada and mainland China

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CULTURE AND GENDER EFFECTS ON 
ETHICAL REASONING IN AN AUDITING CONTEXT:

A COMPARISON OF
CANADA AND MAINLAND CHINA

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CULTURE AND GENDER EFFECTS ON ETHICAL REASONING IN AN AUDITING CONTEXT:

A COMPARISON OF CANADA AND MAINLAND CHINA

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Abstract

This study investigated culture and gender effects on ethical reasoning in an auditing context using Kohlberg’s (1969) cognitive moral development theory in conjunction with Hofstede’s culture theory (1980, 2001). The study was conducted using Canadian (71) and Mainland Chinese (64) final year undergraduate accounting students. The results indicated that Canadian accounting students had significantly higher ethical reasoning levels than Mainland Chinese accounting students. This suggests that cultural differences affect ethical reasoning in an auditing context. The difference in ethical reasoning scores between Canadian males and females was not significantly different from the difference between Chinese males and females.
Acknowledgement

I would like to acknowledge the enthusiastic support and help of the following persons. Without you, the completion of this project would not have been possible.

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List of Abbreviations

Cognitive Moral Development                             CMD
Defining Issue Test                                     DIT
Degree of Freedom                                       df
Grade Point Average                                     GPA
Individualism                                           IDV
Long-term Orientation                                   LTO
Masculinity                                             MAS
Power Distance                                          PD
Sample Size                                             n
Significance                                            Sig.
Standard Deviation                                      s.d.
Standard Error                                          Std. Error
Statistical Package for the Social Science              SPSS
Uncertainty Avoidance                                  UA
United Kingdom                                          U.K.
United States of America                                U.S.A.
CHAPTER ONE

Introduction and Importance of the Study

Countries around the globe have been affected by a surging wave of foreign trade, immigration, and rapidly changing socioeconomic dynamics (Chen, Gampel & Sevak, 2002). The rapid development of information technology, since the 1990s, has brought about a blurring of national boundaries, and a shortening of the perceived distances between world destinations. Thus the development of information technology has been accredited with gradually integrating the world economy (Morris & Heck, 2001). The percentage of world trade as measured by gross domestic product (GDP) increased from 32.5 % (7, 475,000 million US$) in 1990 to 40.3 % (13, 868,566 million US$) in 2002 (World Bank Group, 2004). In 2003, world trade increased by 4.5 % and economists further predict that world trade will expand by 7.5 % in 2004 (World Trade Organization, 2004). These numbers demonstrate beyond a doubt that globalization is expanding at an increasing pace.

The increasing globalization of trade has prompted the internationalization of the auditing profession (Tsui & Windsor, 2001). The Big Four accounting firms dominate auditing practice world-wide and have offices in approximately 150 countries (Deloitte & Touche, 2004; Ernst & Young, 2004; Klynveld, Peat, Marwick & Goerdeler, 2004; PricewaterhouseCoopers, 2004). Countries all over the world differ greatly in terms of economic development, legal systems, cultural standards, and individual’s perception of ethics (Blodgett, Lu, Rose & Vitell, 2001). The challenge to accounting firms operating internationally is, in essence, how to accommodate these differences. Among these differences, culture differences are the most fundamental (Cohen, Pant & Sharp, 1995).
Cultural differences include several factors that make human interactions more difficult such as differences in language, values and behaviours. This adds extra difficulty to cross cultural behavioural studies since cultural differences are often hidden and are difficult to quantify (Rugman & Brewer, 2001). Therefore, with the internationalization of accounting firms, the effect of culture is now an important factor in auditing research (Tsui & Windsor, 2001).

Societal concern for ethical behaviour is also on the rise (Kohls & Buller, 1994). Cohen, Pant and Sharp (1996a) have pointed out that maintaining a high level of ethical standards among auditors is critical to ensure a high quality audit function. Recent accounting scandals have highlighted unethical acts such as bribery and falsifying information. The Enron scandal was an example of increased attention on unethical acts in the accounting profession (Roxas & Stoneback, 2004).

For the purpose of this paper, ethics will be defined as the “application of moral values to complex problems using a rational decision-making process” (Buller, Kohls & Anderson, 1997, p. 170). Ethical reasoning is the decision-making process an individual uses to judge whether a course of action is ethically or morally appropriate.

An individual’s culture plays a central role in shaping ethical values and standards in ethical reasoning (Vitell, Nwachukwu & Barnes, 1993). Different cultural backgrounds lead to various ways of perceiving the world, and therefore, individuals in different cultures may come to different conclusions when resolving ethical dilemmas (Singhapakdi, Marta, Rao & Cicic, 2001). A systematic understanding of cultural differences could provide guidelines for accounting firms seeking to implement their firm’s code of conduct internationally (Cohen, Pant & Sharp., 1996b). Tsui (1996) and
Tsui and Windsor (2001) found that cultural differences existing across national boundaries affect auditors’ ethical reasoning.

As China recently opened its auditing market to international firms, more business practitioners as well as academic researchers have begun to pay attention to the development of Chinese accounting firms and examine the affects of Chinese culture (Cooper, Chow & Wei, 2002). In the past, multinational accounting firms were dominated by a Western managerial culture. With the emergence of the Chinese market, understanding the effect of Chinese culture on organizational issues (e.g. ethical reasoning) and the interaction with Western business philosophies needs to be explored.

To increase this understanding, the current study aims to investigate ethical reasoning in an auditing context across two countries: Mainland China and Canada. Canada is used because of its Western style of management and its increased business presence in China. By 2001, the Canadian business presence in China had more than doubled since 1994 to more than 400 firms with offices or operations established in China (Government of Canada, 2001). Cross-cultural ethics is important to the audit function. As Cohen, Pant and Sharp (1993) has stated:

“A systematic knowledge of the differences in professionals’ ethical sensitivities and the way ethical choices are made would be invaluable for formulating guidelines for a firm-wide ethical policy. It also could provide international firms with a framework with which to identify potential ethical problem-areas in specific countries” (p. 1).

The current study also will investigate the effect of gender on ethical reasoning in an auditing context. The increasing number of women entering the field of auditing has made understanding the relationship between gender and ethical reasoning important (Roxas & Stoneback, 2004). Although many studies have examined the effect
of gender on ethics with an American sample population (e.g., Betz, O’Connell & Shepard, 1989; Geiger & O’Connell, 1999), few have looked at the effect of gender across cultures. The current study will extend this line of literature to examine the effect of gender on ethical reasoning in Canada and Mainland China.

The remainder of the paper is organized into five sections. Chapter two is a comprehensive review of the literature on Kohlberg’s (1969) theory of cognitive moral development (CMD), Hofstede’s (1980, 2001) culture theory and the effect of gender on ethics. The following chapter describes the hypotheses development for this study. The research methodology, including the sample design, questionnaire design, and translation procedure composes chapter four. Chapter five discusses the results of the study, and chapter six presents the discussion, limitations, implications for future study, and the conclusion.
CHAPTER TWO

Literature Review and Theoretical Perspective

As discussed in the last chapter, the effects of culture and gender on ethics are important to the audit function. To gain a better understanding of the effect of culture on ethical reasoning, this study utilizes two theoretical models: Kohlberg’s (1969) theory of CMD, and Hofstede’s (1980, 2001) culture theory. Kohlberg’s (1969) theory of CMD uses a cognitive ethical reasoning process to explain why an individual rationalizes a particular ethical choice (Tsui, 1996). A review of Hofstede’s culture theory will provide a conceptual framework explaining how culture influences one’s perceptions and ethical reasoning in an auditing context. Two main gender approaches, the gender socialization approach and the structural approach, and the relevant literature also will be reviewed in this chapter.

Kohlberg’s Cognitive Moral Development Theory

Kohlberg’s (1969) theory of CMD has been widely accepted as an important theory which describes individuals’ ethical reasoning levels. This theory is based on the basic conceptions of social cooperation and notions of fairness. The ethical reasoning process that individuals use to judge the ethically or morally appropriate course of action can be differentiated into six stages of ethical reasoning (See Table 1) (Kohlberg, 1969).
Table 1. Six Stages of Moral Reasoning

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>1. Pre-Conventional Level</td>
<td>Focus is self.</td>
</tr>
<tr>
<td>Stage 1: Obedience</td>
<td>You do what you are told primarily to avoid punishment.</td>
</tr>
<tr>
<td>Stage 2: Instrumental egotism and simple exchange</td>
<td>Let’s make a deal or only consider the costs and/or benefits to oneself.</td>
</tr>
<tr>
<td>2. Conventional Level</td>
<td>Focus is relationships.</td>
</tr>
<tr>
<td>Stage 3: Interpersonal concordance</td>
<td>Be considerate, nice and kind and you’ll get along with people. Focus is on co-operation with those in your environment.</td>
</tr>
<tr>
<td>Stage 4: Law and duty to the social order</td>
<td>Everyone in society is obligated and is protected by the law. Focus is on co-operation with society in general.</td>
</tr>
<tr>
<td>3. Post-Conventional Level</td>
<td>Focus is personally held principles.</td>
</tr>
<tr>
<td>Stage 5: Societal consensus</td>
<td>You are obligated by whatever arrangements are agreed to and by due process and procedure. Focus is on fairness of the law or rule as determined by equity and equality in the process of developing the rule.</td>
</tr>
<tr>
<td>Stage 6: Non-arbitrary social co-operation</td>
<td>Rational and impartial people would view co-operation as moral. Focus is on fairness of the law or rules derived from general principles of just and right as determined by rational people.</td>
</tr>
</tbody>
</table>

Source: Adapted from J. Rest (1979).
Over the last three and a half decades Kohlberg’s (1969) theory of CMD approach to understanding ethical reasoning has been invaluable to researchers. Many scholars and philosophers only theorized about moral concerns, while Kohlberg actually grounded his theory based on longitudinal data (Fraedrich et al., 1994). Kohlberg’s (1969) CMD theory expedited much of the development of research in business ethics. Goolsby and Hunt (1992) state that the “strong empirical foundations” of the theory of CMD provide a rationale to incorporate cognitive moral development as a “key construct” in business ethics research (p. 66).

As individuals advance through Kohlberg’s six stages they move toward a better understanding of ethical obligations (Rest, 1979). Kohlberg groups the six stages of ethical cognition into three major levels of ethical development: pre-conventional, conventional, and post-conventional (Kohlberg, 1969; Lawrence & Shaub, 1997). A particular type of reasoning dominates at each level. The pre-conventional level is dominated by the notion of rewards and punishments attached to various choices of outcomes (Fraedrich et al., 1994). One does not behave unethically because one does not want to get punished. In the conventional level, expectations of acceptable behaviour of significant others dominate (Kohlberg, 1969; Thorne & Hartwick, 2001). One does not behave unethically because family and friends may feel ashamed of him/her. In the post-conventional level, personally held principles and rationality dominate (Kohlberg, 1969; Thorne & Hartwick, 2001). One does not behave unethically because unethical behaviours are not consistent with his/her personally held principles and rationality. Individuals at higher levels (stage five and stage six) of ethical reasoning will have available to them more ethical forms of reasoning and consequently be able to
make more ethical decisions (Thorne & Hartwick, 2001).

The defining issues test (DIT), developed by Rest (1979), is a widely used instrument to empirically test Kohlberg’s theory of CMD. The DIT has measured ethical reasoning of various groups across diverse cultures (including non-Western cultures). Ponemon and Gabhart (1993) compared Canadian and American auditors in terms of their ethical reasoning. They found that Canadian auditors have higher ethical reasoning in all ranks in comparison to their American counterparts although they both come from Western cultures. Etherington and Schulting (1995) extended Ponemon and Gabhart’s (1993) study to examine the ethical reasoning levels of management accountants in Canada. They found that Canadian management accountants’ ethical reasoning levels are similar to those Canadian auditors in the Ponemon and Gabhart’s (1993) study. Tsui (1996), and Tsui and Windsor (2001) discovered that American and Australian auditors had higher ethical reasoning levels than Chinese auditors. They also found that auditors with higher ethical reasoning were likely to behave more independently than those with lower ethical reasoning.

One major criticism of Kohlberg’s (1969) CMD theory has come from Gilligan (1982). Gilligan argued that Kohlberg only used young males with a justice perspective when developing the theory. She suggested that Kohlberg neglected the fact that females are more concerned with care perspectives than justice perspectives and therefore a gender bias is inherent in the theory. Based on this reasoning, the DIT should be biased toward males (Gilligan, 1982). However, empirical research in an auditing context does not support Gilligan’s position. Male auditors did not show higher levels of ethical reasoning than female auditors (e.g., Eynon, Hill & Stevens, 1997; Hill, Stevens &
Clark, 1998; Thorne & Magnan, 2000).

To summarize, Kohlberg’s (1969) theory of CMD is a widely used theory explaining the human ethical reasoning influencing ethical behaviour. Empirical studies suggested that the theory of CMD provides an important theoretical foundation for business ethics research (Goolsby & Hunt, 1992). Studies in accounting/auditing fields also have successfully measured ethical reasoning levels of accountants/auditors using the CMD approach (e.g., Etherington & Schulting, 1995; Ponemon & Gabhart, 1993). Tsui (1996), and Tsui and Windsor (2001) go further to indicate that differences in ethical reasoning might exist for auditors from countries with different cultural backgrounds.

**Hofstede’s Theory of Culture**

“Culture is a comprehensive and implicit window through which we view the world” (Blodgett, et al., 2001, p. 192). In the increasingly global business environment, one of the central challenges facing firms is how to balance the desire for standardized ethical codes and beliefs with appropriate consideration of the specific norms of various cultural contexts (Bartlett & Ghoshal, 1998; Buller, Kohls & Anderson, 1991). Culture provides human beings with distinct living environments and histories, which in turn cause significant variations in ethical standards, beliefs and behaviours (Roshton & Chrisjohn, 1981). A greater understanding of the cultural effect on ethical reasoning in an auditing context has become increasingly important in today’s world of globalization (Tsui & Windsor, 2001). This suggests that accounting firms pursuing international ventures need to understand how ethical standards differ across cultures, and how these
cultural differences can affect ethical reasoning in an auditing context (Thorne & Saunders, 2002; Tsui & Windsor, 2001).

Hofstede (2001) described cultural differences as work-related values, which comprise shared norms and values that often operate unconsciously. He defined culture as “the collective programming of the mind that distinguishes the members of one group or category of people from another” (2001, p. 9). The programming manifests itself in the values and beliefs of a society. Values are the tendency of an individual to prefer certain states of affairs to others (Hofstede, 2001).

Hofstede’s culture theory research project has a long history. Hofstede collected survey data from 1967 to 1973 using subsidiaries of IBM with operations in more than 72 countries using 20 languages (Hofstede, 2001). The data revealed four main dimensions of culture: power distance, individualism, uncertainty avoidance and masculinity (Hofstede, 2001). A fifth dimension, long-term orientation, was added after Hofstede and Bond (1988) performed a survey utilizing Chinese individuals. The second salient aspect of the Hofstede and Bond 1988 study was the inclusion of China in the cultural analysis data (Hofstede, 2001).

Hofstede’s culture theory has been widely referenced and frequently used as a conceptual framework for presuming, verifying and explaining cultural differences in research (Blodgett et al., 2001). It captures the major components of culture, integrates the relevant cultural dimensions proposed by other authors, and also provides a common ground for comparison as well as a relevant framework for assessing cultural differences in perceptions and decision making (Nakata & Sivakumar, 1996). The reliability, validity and applicability of Hofstede’s culture theory have been documented in a
number of studies (e.g., Alnajjar, 1989; Ronen & Shenkar, 1988). The proven reliability of the measures for the five dimensions provides a convenient assessment tool for researchers who conduct cross culture studies (Cohen et al., 1995). Barkema and Vermeulen (1997) used longitudinal data spanning almost three decades, to test the validity of the five culture dimensions. The results provided evidence on a key assumption of Hofstede’s work; cultural values are stable over time.

The following sections are a review of the related literature regarding the five dimensions of Hofstede’s culture theory, and their implications for auditing and ethics research.

**Power Distance**

The dimension of power distance measures the degree to which the members of a group or society accept the fact “that power in institutions and organizations is distributed unequally” (Hofstede, 1985, p. 347). This dimension deals with perceptions of subordinates’ fear of disagreeing with their superiors and of superiors’ actual decision making styles, and with the decision making style that subordinates preferred in their bosses (Hofstede, 2001). Although inequality exists within every culture between superiors and subordinates, the degree to which it is accepted varies from culture to culture (Vitell et al., 1993).

High power distance reveals a culture's acceptance of inequality and respect for the bounds of social status or class (Weaver, 2001). In high power distance societies, less powerful people are apt to accept the inequality of power between superiors and subordinates, tend to follow formal codes of conduct, are reluctant to disagree with superiors, and believe that superiors are entitled to special privileges (Hofstede, 1980,
Ko (1995) suggests that in organizations with high power distance, such as Chinese organizations, it is common for subordinates to refrain from challenging their superiors. Any direct challenge constitutes a rejection of the superior's expertise and hierarchical status, and generates the kind of public loss of face that is detrimental to group harmony (Ko, 1995).

In low power distance societies, however, people expect power to be distributed more equally and resist a settled power relationship (Tsui & Windsor, 2001). Therefore, if we want to promote ethical behaviour in an organization, low power distance suggests that a broad-based cultural approach is needed in managing ethics between superiors and subordinates, while in a higher power distance setting we might focus attention more narrowly on persons in formal positions of status and influence (Weaver, 2001).

Power distance has many implications for individual’s ethical behaviours and values. “An important implication for ethical decision making of this culture dimension relates to the likelihood of a subordinate’s response to pressure from a superior to perform unethical actions” (Cohen et al., 1995, p. 43). For example, in high power distance countries, auditors may be more willing to acquiesce to pressures from powerful clients when a subservient relationship is perceived to exist (McKinnon, 1984). The reverse applies to similar situations in low power distance countries.

Several studies have examined the effect of power distance on ethics in an auditing context. Cohen et al. (1996b) reported an empirical test of the usefulness of Hofstede’s five dimensions of culture to predict cross-cultural differences in ethical sensitivity. A small-sample survey of academic experts in cross-cultural management research in auditing indicated that individuals with high power distance culture
evaluated questionable behaviours as being more ethical than low power distance individuals (Cohen et al., 1996b).

Tsui (1996) examined the effect of Hofstede’s cultural dimensions on ethical reasoning described in Kohlberg’s (1969) theory of CMD between Hong Kong and American auditors. The result indicated that the cultural dimension of power distance is positively related to the highest levels of ethical reasoning: social justice (stage five) and personally held principles (stage six) (Tsui, 1996). Empirical studies also show that the action of a subordinate who follows the unethical instructions of a superior would more likely be considered ethical in a high power distance culture than in a low power distance culture (Cohen, Pant & Sharp., 1992). Cohen et al. (1993) also argued that in low power distance societies such as American auditors’ unwillingness to accept large inequity of power is consistent with the need for them to exhibit high ethical standards even in the face of pressure from a superior.

To summarize, power distance captures the extent to which individuals accept the unequal distribution of power (Cohen et al., 1993; Hofstede, 1980). The literature indicates that in high power distance countries, auditors have more difficulties resisting pressure from their superiors/managers in the accounting firm and are more likely to follow the decisions made by their superiors/managers due to their tolerance for hierarchies (Cohen et al., 1992, 1993). Some studies further found that auditors who score higher on power distance show lower ethical standards than their low power distance counterparts (Cohen et al., 1995; Tsui, 1996).
Individualism

Individualism is perhaps the most important dimension in studying cultural differences (Triandis, 2004). Individualism captures the degree to which “individuals are supposed to look after themselves or remain integrated into groups, usually associated with the family” (Hofstede, 2001, p. xx). In highly individualistic societies, people value personal independence, individual expression and personal time (Cohen et al., 1993). The ties between individuals are loose. Personal goals and interests are more important than group goals and interests, and individual decisions are considered to be better than group decisions (Hofstede, 2001; Schwartz, 1992; Triandis, 1995). Everybody is expected to look after him/herself and his/her immediate family only.

In highly collectivistic societies, individuals are strongly integrated into cohesive in-groups (Tsui & Windsor, 2001). They adapt their opinions to those of the group, and stay loyal for status as a member of the group (Hofstede, 1980). In collectivistic cultures, ethical propriety is more likely to be judged in the context of personal relationships rather than by comparisons to abstract or formalized rules (Weaver, 2001).

The individualism dimension is highly relevant to ethical values (Cohen et al., 1992). High individualism emphasizes personally held principles and personal values. According to Kohlberg’s (1969) theory of CMD, high levels of ethical reasoning also focus on personally held principles. Therefore, high individualism is consistent with high levels of ethical reasoning. Using 198 managers and partners from accounting firms in 16 European countries Arnold, Bernardi and Neidermeyer (1999) found that auditors from countries with higher levels of individualism tended to rely more on their own judgment than their collectivistic counterparts (Arnold et al., 1999).
Teoh, Serang and Lim (1999) compared the impact of the individualism dimension of culture on the ethical perceptions of Australian (individualistic society) and Indonesian (collectivistic society) final year undergraduate accounting students. Respondents were requested to respond to cases in which questionable acts were committed, and such acts might have beneficial impacts on their in-groups. The findings indicated that the possible in-group benefits were considered as more important for Indonesian accounting students than for Australian accounting students. Comparatively, the possible negative effects of conducting questionable acts were considered of greater importance for Australian accounting students than for Indonesian accounting students.

Tsui and Windsor (2001) examined ethical reasoning levels for auditors from Australia and China (Mainland China and Hong Kong) using Rest’s DIT to test Kohlberg’s (1969) theory of CMD. Results of the study indicated that auditors from Australia (individualistic society) have higher ethical reasoning scores than those from China (collectivistic society), suggesting that a high ethical reasoning score is consistent with the individualism dimension.

The focus of this dimension is the importance of the individual versus the group and whether these relationships are weak or strong (Hofstede, 2001). Collectivists view group interests as more important than individualists (Teoh et al., 1999). The preceding accounting/auditing studies indicate that individualism is highly relevant to personal judgments and personally held principles. This is consistent with the highest level of ethical reasoning in Kohlberg’s (1969) theory of CMD (Tsui & Windsor, 2001).
Uncertainty Avoidance

Uncertainty avoidance is the extent to which a culture programs its members to feel either uncomfortable or comfortable in situations that are novel, unknown, surprising, or different (Hofstede, 2001). This dimension represents the collective willingness of a society to tolerate ambiguity of outcomes when going beyond formal rules (Cohen et al., 1995).

In high uncertainty avoidance societies, individuals are less secure and there is a higher level of anxiety (Tsui & Windsor, 2001). They are more concerned with security in life and resist changing (Singhapakdi et al., 2001). They prefer clear hierarchical structures in organizations, rely more on written rules and instructions, are less likely to take risks and are intolerant of deviations from organizational norms or company rules (Blodgett et al., 2001). In contrast, in low uncertainty avoidance societies, people are relatively more secure. They are less concerned with security, rely less on written rules, and are more risk tolerant (Hofstede, 1984).

Gul and Tsui (1993) investigated whether cultural factors can explain differences in auditors’ attitudes towards the interpretation and implementation of certain auditing standards. Auditors in Hong Kong and Australia were different on the uncertainty avoidance dimension. They therefore hypothesized that there would be significant differences in Hong Kong (Chinese) and Australian auditors’ decision attitudes towards the “subject to” audit qualification given the information on uncertainty in the financial statements. They found support for this hypothesis. Auditors in a low uncertainty avoidance society (Hong Kong) feel more secure and less threatened by the risk of losing clients and therefore, have a higher preference to issue a "subject to" qualification.
than auditors in a high uncertainty avoidance society (Australia) (Gul & Tsui, 1993).

Cohen et al. (1993) further pointed out that auditors with high uncertainty avoidance cultures are more likely to equate "legal" with "ethical" responsibilities and to concentrate more on the form of rules than the content of the rules. On the other hand, auditors from cultures with low uncertainty avoidance focus more on the content of the issue than on the form alone (Cohen et al., 1993). They would avoid conducting questionable actions even though they were legal. Based on the study of Cohen et al. (1993), Salter, Guffey and McMillan (2001) developed a model that suggests that students in low uncertainty avoidance countries are less likely to cheat. They used accounting students in the United States of American (U.S.A.) as the high uncertainty avoidance sample and the United Kingdom (U.K.) as a low uncertainty avoidance sample. The results supported their proposed model (Salter et al., 2001).

The focus of uncertainty avoidance is the willingness of a society to tolerate ambiguity (Cohen et al., 1995). Low uncertainty avoidance represents a high tolerance for ambiguity. Empirical studies show that auditors with high uncertainty avoidance feel less secure and more threatened by the risk of losing clients (Gul & Tsui, 1993). Also, they have a stronger need for rules (Cohen et al., 1993). High uncertainty avoidance accounting students were found to have lower ethical standards (Salter et al., 2001). Tsui and Windsor (2001) have suggested that high uncertainty avoidance is positively related to the highest level of Kohlberg’s (1969) theory of CMD arguing that “high uncertainty avoidance is consistent with the notion of the security of the individual which is compatible with the personally held principles in the highest level of ethical reasoning” (p. 148).
Masculinity

The fourth cultural dimension is masculinity. It measures “the extent to which a culture emphasizes assertive (masculine) rather than supportive, nurturing (feminine) values” (Cohen et al., 1992, p. 691). Masculine individuals are characterized as assertive, aggressive, competitive, ambitious, money oriented and material success driven (Hofstede, 1984). In contrast, feminine individuals emphasize good working conditions, security, feelings, and intuition, are people oriented and determine achievement in terms of close human relationships, and overall quality of life (Hofstede, 1984).

Blodgett et al. (2001) predicted that masculinity would have a negative effect on ethical sensitivity. Sales agents in the masculine culture (U.S.A.) would be less sensitive to ethical issues than their counterparts in the feminine culture (Taiwan). The results supported their prediction.

Moon and Franke (2000) also examined the effect culture on the ethical sensitivities of advertising agency executives in the U.S.A. (masculine culture) and South Korea (feminine culture). They found that American advertising executives had lower levels of ethical sensitivity when responding to ethical issues in advertising than their South Korean counterparts.

To summarize, the degree to which a culture emphasizes assertive (masculine) rather than supportive, nurturing (feminine) values defines the level of the masculinity dimension. Empirical studies indicated that individuals from less masculine cultures are more sensitive to ethical issues (Blodgett et al., 2001; Moon & Franke, 2000). No studies have made a theoretical link between masculinity and the ethical reasoning levels described in Kohlberg’s (1969) theory of CMD.
**Long-term Orientation**

Long-term orientation, know also as Confucian Dynamism, is defined as the extent to which a culture emphasizes a pragmatic future-oriented perspective rather than focusing on the present (Barkema & Vermeulen, 1997). Long-term orientation cultures are characterized by thrift, persistence, perseverance toward slow results, having a sense of shame, and ordering relationships by status (Hofstede, 2001). Thorne and Saunders (2002) argued that in comparison with their short-term orientation counterparts, auditors from long-term orientation cultures are more concerned with “saving face” than acting ethically. In short-term orientation cultures, individuals expect quick results and have a higher level of personal steadiness and stability. Shame is not a common feeling in short-term orientation cultures (Hofstede, 2001).

Tsui (1996) found that auditors from a short-term orientation culture (U.S.A.) have a higher level of ethical reasoning described in Kohlberg’s (1969) theory of CMD than their counterparts from a long-term orientation culture (Hong Kong). They suggested that short-term orientation illustrates the features of respect for tradition, personal steadiness and stability, and the reciprocation of greetings, favours, and gifts. These features are consistent with social cooperation and consensus, characteristics of the highest level of ethical reasoning in Kohlberg’s (1969) theory of CMD (Tsui, 1996). Tsui and Windsor (2001) also found that Australian auditors (short-term orientation) had a higher level of ethical reasoning than Chinese auditors (long-term orientation).

Whitcomb, Erdener and Li (1998) stated that the dimension of long-term orientation is considered the dominant influence on values in East Asia. Long-term orientation is consistent with Confucian teachings, which is a “set of pragmatic rules for
daily life derived from what Confucius saw as the lessons of Chinese history” (Hofstede, 2001, p. 354). Since Confucian teaching forms a strong basis for Chinese beliefs, the dimension of long-term orientation is helpful in investigating their values.

Long-term orientation measures the extent to which a culture emphasizes a future-oriented perspective rather than a present-oriented perspective. Empirical studies indicate that auditors from long-term oriented countries are more likely to act in an unethical manner. The dimension of short-term orientation is positively related to the highest ethical reasoning level in Kohlberg’s (1969) theory of CMD (Tsui, 1996; Tsui & Windsor, 2001).

**Summary of Dimensions**

Prior research has suggested that Hofstede’s (1980, 2001) culture theory has various implications for understanding individuals’ values and behaviours. Since Mainland China and Canada have distinctly different scores on power distance, individualism and long-term orientation (Table 2), auditors in these two countries are expected to have different ethical reasoning when they encounter the same ethical conflicts.

The preceding literature review on Kohlberg’s theory of CMD and Hofstede’s culture theory provide a foundation for the current study. A comparison of ethical reasoning between Mainland China and Canada in an auditing context will be undertaken in the hypothesis development section. Kohlberg’s theory of CMD will be used to differentiate the ethical reasoning levels of Canadian and Mainland Chinese, and Hofstede’s culture theory will provide a rationale from a culture perspective why Canadian and Mainland Chinese have different ethical reasoning levels.
Table 2. A Comparison of Hofstede’s Culture scores Between Canada and Mainland China

<table>
<thead>
<tr>
<th>Country</th>
<th>PDI</th>
<th>UAI</th>
<th>IDV</th>
<th>MAS</th>
<th>LTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>39</td>
<td>48</td>
<td>80</td>
<td>52</td>
<td>23</td>
</tr>
<tr>
<td>China</td>
<td>80</td>
<td>30</td>
<td>20</td>
<td>66</td>
<td>118</td>
</tr>
</tbody>
</table>

Note. PDI—Power distance; UAI—Uncertainty avoidance; IDV—Individualism; MAS—Masculinity; LTO—Long-term orientation. All these scores are taken from “Culture’s consequences: Comparing values, behaviours, institutions, and organizations across nation” by G. Hofstede, 2001, Sage Publishers. For PDI, UAI, IDV and MAS, the index values range from 0 for small to 100 for large. For LTO, the index value ranges from 0 for small to 118 for large.

**Gender**

There are two main explanations for gender differences in ethical values and behaviours: the gender socialization approach and the structural approach (Betz et al., 1989). The gender socialization approach argues that gender brings different sets of values to the workplace, which in turn, shapes men’s and women’s ethical attitudes, behaviours, and decisions differently (Betz et al., 1989). Accordingly, men and women will respond in a different way to the same set of occupational rewards and costs (Betz et al., 1989). Men will seek competitive success with rewards such as money, advancement and power (Ameen, Guffey & McMillan, 1996). They are more likely to break rules because they consider the pathways to achievement as competition (Betz et al., 1989). In contrast, women place more emphasis on doing tasks well and promoting harmonious work relationships. Consequently, they tend to adhere more often to rules.
and show less concern for money and power (Betz et al., 1989).

According to the structural approach, differences between men and women are the results of household role requirements (Betz et al., 1989; Roxas & Stoneback, 2004). As more women enter the workplace, the structural approach predicts that men and women in a given occupation will exhibit the same ethical development in order to fulfill their professional and work responsibilities (Betz et al., 1989). The reason is that the gender roles are driven by the surrounding environment. When women go to the workplace, the household role of women will be overshadowed by the costs and rewards that are related to their workplace (Betz et al., 1989; Radtke, 2000). Since the nature of work shapes behaviours through the structure of rewards, men and women respond similarly to the same occupational environment (Ameen et al., 1996).

No studies have empirically tested gender socialization approach and structural approach. However, studies have examined the effect of gender on ethics. Before the mid 1990s, most empirical studies found that women were more ethical. Peterson, Beltramini and Kozmetsky (1991) surveyed 2,856 university students located in 23 different countries and found that females were more willing to voice their concern about ethical issues in business than male students. Akaah (1989) defined ethical judgment as the endorsement of ethical business practices and intolerance for unethical ones. The result of their paper indicated that female marketing professionals showed higher research ethical judgments than males in the same occupation. Betz et al. (1989) found that male students were much more likely to engage in unethical behaviours than were female students.

Recent research in this area has resulted in mixed findings with the majority of
studies not finding any significant difference between men and women. Radtke (2000), using practicing accountants from both public accounting and private industry, found that responses of male and female accountants to sixteen ethically sensitive situations of a personal or business nature were similar. Owhoso (2002) found that male and female auditors are not differentially sensitive to the presence or absence of positive ethical information when estimating a client’s likelihood of fraud risk. Robin and Babin (1997) conducted an extensive examination of gender differences in business ethics. They found no significant difference between male and female managers on ethical judgment (judgment of the ideal solution to the ethical dilemma) and ethical behaviour (a function of one’s ethical choice).

A review of the body of literature from the last two decades indicates that the effect of gender is changing with the development of the society. Overall, most of the studies earlier than the mid 1990s found that women were more ethical than men (e.g., Akaah, 1989; Betz et al., 1989; Peterson et al., 1991). Recent studies in this area have resulted in mixed findings. The majority of studies have not found any significant difference between men and women in the same occupation on ethics (Owhoso, 2002; Radtke, 2000; Robin & Babin, 1997) while Glover, Bumpus, Sharp and Munchus (2002) found that females are more ethical than their male counterparts. Since these studies were all conducted using North American subjects, the findings suggest that in recent years the effect of gender on ethical perceptions and behaviours appears to be narrowing in North America.

One possible reason for this apparent narrowing of the gender effect is that with the continual development of North American society, more women are entering the
workplace and working in the same occupational environment as. For example, from 1969 to 2003 there has been a 15% increase in the number of Canadian women in the workforce (Statistics Canada, 2003). In today’s business world, organizations are striving to maximize profits and minimize the costs (Babita, 2002). This creates a competitive atmosphere within the organization. This competitive atmosphere in organizations arouses the desire of women to achieve competitive success which is measured in terms of money, power and advancement (Babita, 2002). Thus the competitive atmosphere may provide a plausible reason that recent studies showed the gender difference on ethics to be narrowing between North American males and females (Owhoso, 2002; Radtke, 2000; Robin & Babin, 1997). This finding is consistent with the argument of the ‘structural approach’ that postulates that ethical values are influenced by the environments.

**Gender and Culture**

There is limited research on the effect of both gender and culture on ethical reasoning. In an exploratory study Roxas and Stoneback (2004) analyzed the responses of students from eight different countries, including Canada and China, to questions about their probable actions to an ethical dilemma. The results indicated that in the Ukraine male accounting students had higher ethical levels than female accounting students; in China female accounting students had higher ethical levels than their male counterparts. There was no significant difference found with the other countries: U.S.A, Australia, the Philippines, Germany, Canada and Thailand (Roxas & Stoneback, 2004). This suggests that the effect of gender on ethics various from culture to culture.
CHAPTER THREE

Hypothesis Development

A review of Kohlberg’s (1969) theory of CMD and Hofstede’s (1980, 2001) culture theory in the last chapter provided a background for the cultural implications for an individual’s ethical behaviours and values in an auditing context. A review of the structural approach provided possible explanations for gender differences on ethical perceptions and behaviours. Based on the literature review, this section will develop the hypotheses that aim to investigate ethical reasoning in an auditing context between two countries with distinctively different cultures: Canada and Mainland China. The current study will not measure Hofstede culture dimensions of the subjects. Instead, the current study will compare the ethical reasoning between Canadians and Mainland Chinese using Hofstede’s culture research as a theoretical framework for the comparison. According to Hofstede’s culture dimension scores, Canada and China do not differ greatly in either uncertainty avoidance or masculinity. Therefore the current study will only examine the relationship between Canada and Mainland China on power distance, individualism, and long-term orientation, but not on uncertainty avoidance and masculinity.

The dimension of power distance postulates that subordinates in countries with high power distance are more likely to accept inequality in power and authority (Hofstede, 1980; 2001). Therefore, they are more likely to behave according to their superiors’ wishes (Hofstede, 2001). In contrast, subordinates from low power distance cultures are less tolerant of hierarchies and tend to behave more on the basis of their
own judgments rather than their superiors’ (Blodgett et al., 2001). The culture dimension of low power distance is consistent with Kohlberg’s highest level of ethical reasoning (See Table 1, p. 6) which focuses on personally held principles. This is consistent with the results of the Tsui (1996), and Tsui and Windsor’s (2001) studies, which indicated that higher ethical reasoning scores were compatible with low power distance.

Prior research has found a relationship between individualism and ethical reasoning. Individuals in countries that score low on individualism tend to be more influenced by groups and societies than individuals in countries that score high on this dimension (Hofstede, 1980; 2001). Highly individualistic cultures are characterized by self-reliance and self-consciousness, which is consistent with the personally held principles of Kohlberg’s highest ethical reasoning level (See Table 1, p. 6) (Tsui, 1996; Tsui & Windsor, 2001). Tsui and Windsor (2001) found that Australian auditors (individualism) have higher ethical reasoning levels than Chinese auditors (collectivism). This indicated that individualism is consistent with the higher level of ethical reasoning in Kohlberg’s (1969) theory of CMD.

Long-term orientation may also affect ethical reasoning. Tsui (1996), and Tsui and Windsor (2001) found that Chinese auditors have lower levels of ethical reasoning than American and Australian auditors. They suggested that since short-term orientation exemplifies the characteristics of personal steadiness and stability, respect for tradition, as well as reciprocation of greetings, favors, and gifts, it is consistent with high level of ethical reasoning which focus on societal consensus and social cooperation. Since stage five of Kohlberg’s (1969) theory of cognitive moral development (CMD) is characterized by societal consensus and stage six of CMD is characterized by social
cooperation (See Table 1, p. 6), short-term orientation is consistent with these two stages of ethical reasoning.

China scores higher (80) than Canada (39) on Hofstede’s power distance scale and lower (20) than Canada (80) on the individualism scale (See Table 2, p. 20), indicating that China has a higher power distance and more collectivistic culture than Canada. China’s long-term orientation score is 118, and Canada has a much lower score of 23 (See Table 2, p. 20). Based on the discussion above, the following hypothesis is proposed:

**H1**: Canadians have higher levels of ethical reasoning than Chinese.

The literature of gender effect shows that the gender difference within North American society is narrowing. This is probably because ongoing societal changes have altered women’s perceptions of their role within North American society (Babita, 2002). A big number of pre-modern women, instead of going to the workplace, stayed at home and played a role as housewives. The household role of women dominated. In the recent years, as more women entered the workplace, they gradually accepted the role of being professional women and aroused their desire to gain the same career success as men. By so doing, women have increased their aggressive behaviours which may eventually lead to lower levels of ethical reasoning (Babita, 2002). The development of women’s gender role in North America is consistent with the argument of the structural approach that postulates women’s values are influenced by their surrounding environments.

The gender socialization approach does not appear to apply to modern Canadian society because as more Canadian women enter the workplace the gender difference on ethical reasoning appears to be narrowing. The reason for pre-modern women having a
larger difference in ethics is not because their inherent values are different from men, but because the environmental factors greatly influenced their values and beliefs. Therefore, gender socialization approach does not explain the essential reasons behind how the gender role affects ethical reasoning.

Research to date has not provided insight into the interaction of culture and gender with respect to ethical reasoning. This current study is interested in examining the gender differences between Canadians and Mainland Chinese in ethical reasoning among accounting students. Confucian teaching has been deeply rooted in the Chinese mind (Bell & Chaibong, 2003). Confucianism teaches that women should abide by four virtues (Bell & Chaibong, 2003). In speech, women should be polite and decent and should not be rude in any situation (Deng, 1999). In behaviour, women should be honest, self-constrained and comply with proper etiquette (Deng, 1999). In work, women should master cooking, sewing and embroidery in order to take care of their husbands and children (Deng, 1999). In physical appearance, women should dress properly, and be neat and clean (Deng, 1999). Women are supposed to pay attention not only to their own speech and behaviour, but also to the behaviours of their husbands and sons (Bell & Chaibong, 2003). When their husbands and sons intend to do something unethical, they should tell them what they should and should not do (Bell & Chaibong, 2003). Although in contemporary China women do not need to strictly obey the rules of the four virtues, the teaching still has a strong impact on the behaviour of Chinese women (Bell & Chaibong, 2003). Traditionally, then, Chinese women have received more instruction about ethics than Chinese men and have played the role of ethical guide in their households.
Based on the above discussion, it is anticipated that there is a significant difference between Chinese men and women in the ethical reasoning, but no significant difference between Canadian men and women. Therefore, this leads to the second hypothesis:

**H2**: Ethical reasoning is a function of the interaction between gender and country. The ethical reasoning difference between Chinese men and women is greater than the difference between Canadian men and women.
CHAPTER FOUR

Research Methodology

Instrument

Thorne’s (2000) accounting-specified instrument was used in this study (Appendix A). Thorne’s (2000) instrument is based on Rest’s (1979) defining issues test (DIT). Thorne’s (2000) instrument used the same format as the DIT, but used accounting-specific contexts which are different from Rest’s non-business contexts. The importance of using context-specific instruments has been suggested by applied cognitive-developmental researchers (e.g., Arnold, 1997; Jones, 1991; Shaub, 1994; Trevino, 1986).

To facilitate a higher response rate, the short version of Thorne’s instrument was used. It includes four scenarios each involving an auditing ethical dilemma. Participants were asked to respond to each situation as they perceived the individual described in the case would respond. In the process of ethical reasoning, many different issues needed to be considered. Participants ranked the importance of each issue, ranging from 1 (Great) to 4 (No). Then they were required to rank the four issues of greatest importance for making the decision. According to their rankings, the individual’s level of ethical reasoning was determined by calculating a P score (Ethical reasoning score). The P score, ranging from 0 to 95, was determined from the ranking that the individual assigned to post-conventional items of consideration in resolving an ethical dilemma (Thorne, 2000). Although researchers have established that a high P score results in a high level of ethical reasoning, they have not established the link to what P score
corresponds to what level of ethical reasoning (e.g. a P score of 30 will result in precisely what level of ethical reasoning). The instrument had been pre-tested by Thorne (2000) using 109 graduate accounting students and 286 accountants. Based on the pre-test, Thorne (2000) reported that the reliability (0.53) of the accounting-specific four-items instrument was comparable to that of the Rest’s six-items DIT (0.60) for the same sample of subjects. Several other studies have also employed Thorne’s (2000) instrument to test the ethical reasoning of both accounting professionals (e.g., Thorne & Magnan, 2000) and accounting students (e.g., Bernardi, Downey, Massey & Thorne, 2002).

Similar to the DIT, Thorne’s accounting-specific instrument employs “M” (meaningless) items as an internal check on respondent’s validity (Thorne, 2000). “M” items are “representative of lofty sounding but meaningless items” (Rest, 1986, Section 5 p. 2). The “M” items help to screen for respondents who used meaningless items when considering the ethical dilemmas. If respondents consistently rate high on M scores, it is hard to tell whether they were careful enough when they took the test, and this data needs to be eliminated (Rest, 1986). Both Rest’s (1986) DIT manual and Thorne’s (2000) study recommended eliminating participants that rate a raw M score\(^1\) of more than four. The current study discarded all the data with raw M scores higher than four to guarantee the quality of the data used.

\(^1\) Raw M score: After finding the item’s stage, weigh the choices of each ranking, and then add the points together from “M” items (Rest, 1986).
A posttest questionnaire was also used to request participants’ age, gender, work experience, current Grade Point Average (GPA), career objectives and other related information (Appendix B). Participants were informed that the information would be kept strictly confidential, and only the research committee could access it. The overall questionnaire took approximately 25 minutes to complete.

Translation of Instrument

The instrument used in the current study was first translated into Chinese by the researcher. A second independent expert back translated the instrument to English. The original and reversed English translations were compared and any discrepancies from the original items resulted in the rewording and refining of the Chinese questionnaire. Several iterations of this procedure were carried out until the original and back-translated English questionnaires were identical in meaning.

Participants

Thorne’s (2000) study compared the ethical reasoning scores between accountants and accounting students. The result did not show any significant difference in ethical reasoning scores between accounting students and accountants. This finding suggests that students are good surrogates for accountants (Thorne, 2000).

The participants were Canadian and Chinese fourth year undergraduate accounting students. Canadian data for this study were collected at the University of Lethbridge, from January to April 2004, while the Chinese data were collected in the Northeast University of Economics and Finance, from May to June 2004. In Canada, 71 students provided valid data, which resulted in a usable rate of 64% (total participation of 111). Among the eliminated responses, 14 of them did not pass the consistency check.
of reliability\(^2\), 9 of them did not pass the internal check of validity (the check of M score), and 17 did not provide complete responses. In China, there were 64 complete and usable responses out of 123, a usable rate of 52%. 17 eliminated responses did not pass the consistency check of reliability, 28 did not pass internal check of validity and 14 did not totally complete the instrument. Participation in this study was voluntary. According to Cohen’s (1988) power analysis, 24 responses for each cell using an ANOVA test have a power of 0.99.

**Statistical Methodology**

When analyzing the data, the data analyst used the Statistical Package for the Social Science (SPSS) General Linear Model. The significance level of 0.05 was used for all significance tests. The difference in ethical reasoning levels between Canadian and Mainland Chinese accounting students (H1) and the difference of gender effect on ethical reasoning between Canada and Mainland China (H2) were tested using 2×2 ANOVA. The dependent variable was ethical reasoning; the independent variables were culture and gender. For the first hypothesis, the main effect of culture on ethical reasoning was examined. For the second hypothesis, the interaction of culture and gender on ethical reasoning was explored.

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\(^1\) Consistency check of reliability involves a comparison of a subject’s ratings with his/her rankings. If a subject ranks an item 1\(^{st}\), then his/her ratings for that item should have no other items higher (Rest, 1986).
CHAPTER FIVE
Analysis and Results

Preliminary Analysis

Descriptive information about the respondents is presented in Table 3 (Panel A & Panel B). Respondents were almost evenly divided between males and females (52% and 48% respectively). Canadian respondents’ average age was 23.9, 56% were male and 44% were female. Chinese respondents’ average age was 22.6, 52% were male and 48% were female.

T-tests were conducted comparing differences between Canada and Mainland China. The results show that Canadian and Mainland Chinese students were significantly different on age (p = 0.004), working hours per week (p = 0.002), the number of years of work experience (p = 0.000), the number of courses with an ethics component (p = 0.000) and accounting courses (p = 0.001) taken.

Pearson’s correlations were also used to examine whether these factors were correlated to ethical reasoning scores (P scores) (Table 4). For the pooled sample, work experience (p < 0.001) and the number of courses with an ethics component taken by the respondents (p < 0.001) were positively correlated to the P score (Table 4, Panel A). The number of accounting courses taken by the respondents was negatively correlated to the P score (p < 0.001) (Table 4, Panel A). However, Pearson’s correlations conducted with Canadian data did not show any significant correlation between these factors and the P score (Table 4, Panel B). Pearson’s correlations conducted with the Chinese data found that the number of courses with an ethics component taken by the Chinese respondents was
significantly correlated with the P score (p < 0.005). A t-test indicated that career objective
(work in or out of accounting firms) did not result in significantly different P scores.

According to the above analyses, the number of courses with an ethics component taken by
the respondents was included in the ANOVA test as a covariate. Age, working hours per
week, and GPA were not included in the ANOVA test as covariates because they were not
correlated to the P score. The number of years of work experience and the number of
accounting courses taken by the respondents were also not considered as covariates
because these variables were significant in the pooled correlations but not in the individual
analysis of the countries. The significant results of the number of years of work experience
and the number of accounting courses taken by the respondents in the pooled correlation
maybe due to the fact that these variables were related to the country variable.

Table 3. Descriptive Information (Panel A)

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean (S.D.)</th>
<th>p-value (2-tailed test)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Canada (n = 71)</td>
<td>China (n = 64)</td>
</tr>
<tr>
<td>Age</td>
<td>23.88 (3.48)</td>
<td>22.61 (10.31)</td>
</tr>
<tr>
<td>Working hours per week</td>
<td>17.50 (17.62)</td>
<td>7.90 (17.67)</td>
</tr>
<tr>
<td>Number of years of work experience</td>
<td>2.77 (3.26)</td>
<td>0.11 (0.31)</td>
</tr>
<tr>
<td>Grade Point Average (GPA)</td>
<td>3.19 (0.37)</td>
<td>3.08 (0.14)</td>
</tr>
<tr>
<td>No. of Courses with an ethics component</td>
<td>4.79 (5.36)</td>
<td>1.66 (1.67)</td>
</tr>
<tr>
<td>No. of Accounting course</td>
<td>9.07 (5.57)</td>
<td>12.13 (4.55)</td>
</tr>
</tbody>
</table>
### Table 3. Descriptive Information (Panel B)

<table>
<thead>
<tr>
<th>Items</th>
<th>Frequency (%)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Canada (n = 71)</td>
<td>China (n = 64)</td>
</tr>
<tr>
<td>Gender: Male</td>
<td>40 (56.3)</td>
<td>33 (51.6)</td>
</tr>
<tr>
<td>Female</td>
<td>31 (43.7)</td>
<td>31 (48.4)</td>
</tr>
<tr>
<td>Career objective: In</td>
<td>45 (63.4)</td>
<td>29 (45.3)</td>
</tr>
<tr>
<td>accounting firms</td>
<td>26 (36.6)</td>
<td>35 (54.7)</td>
</tr>
<tr>
<td>Out of accounting firms</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 4. Pearson’s Correlations among Factors Conducted in the Research

(Panel A: Pooled)

<table>
<thead>
<tr>
<th></th>
<th>Country</th>
<th>Age</th>
<th>Work</th>
<th>Week</th>
<th>GPA</th>
<th>Accou C</th>
<th>Ethics C</th>
<th>P Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>- .238**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work¹</td>
<td>- .491**</td>
<td>.752*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week²</td>
<td>- .264**</td>
<td>.197</td>
<td>.398**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPA</td>
<td>- .184*</td>
<td>.075</td>
<td>-.124</td>
<td>.025</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accou C³</td>
<td>.288**</td>
<td>-.041</td>
<td>-.050</td>
<td>-.101</td>
<td>-.141</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethics C⁴</td>
<td>-.362**</td>
<td>-.097</td>
<td>.083</td>
<td>.133</td>
<td>.069</td>
<td>-.065</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>P Score</td>
<td>-.383**</td>
<td>.152</td>
<td>.265**</td>
<td>.097</td>
<td>.111</td>
<td>-.215*</td>
<td>.270**</td>
<td>1</td>
</tr>
</tbody>
</table>

¹ Work: Number of years of work experience  
² Week: Working hours per week  
³ Accou C: Number of Accounting courses  
⁴ Ethics C: Number of courses with an ethics component  
**. Correlation is significant at the 0.01 level (2-tailed).  
*. Correlation is significant at the 0.05 level (2-tailed).
Table 4. Pearson’s Correlations among Factors Conducted in the Research

(Panel B: Canada)

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Work</th>
<th>Week</th>
<th>GPA</th>
<th>Accou C</th>
<th>Ethics C</th>
<th>P Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Work</td>
<td>.777*</td>
<td>1</td>
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<tr>
<td>Work²</td>
<td>.184</td>
<td>.380**</td>
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<tr>
<td>GPA</td>
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<tr>
<td>Accou C³</td>
<td>.028</td>
<td>.156</td>
<td>.275*</td>
<td>-.091</td>
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<td></td>
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<tr>
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<td>-.127</td>
<td>.041</td>
<td>.004</td>
<td>.073</td>
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<tr>
<td>P Score</td>
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<td>.118</td>
<td>-.054</td>
<td>-.005</td>
<td>-.092</td>
<td>.145</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Work: Number of years of work experience
2 Week: Working hours per week
3 Accou C: Number of Accounting courses
4 Ethics C: Number of courses with an ethics component
* * Correlation is significant at the 0.01 level (2-tailed).
* * Correlation is significant at the 0.05 level (2-tailed).

Table 4. Pearson’s Correlations among Factors Conducted in the Research

(Panel C: China)

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Work</th>
<th>Week</th>
<th>GPA</th>
<th>Accou C</th>
<th>Ethics C</th>
<th>P Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
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<td></td>
</tr>
<tr>
<td>Work</td>
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<td>1</td>
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<tr>
<td>Work²</td>
<td>.078</td>
<td>.710**</td>
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<tr>
<td>GPA</td>
<td>-479**</td>
<td>.126</td>
<td>.262*</td>
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</tr>
<tr>
<td>Accou C³</td>
<td>.051</td>
<td>-.232</td>
<td>-.438**</td>
<td>-.125</td>
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</tr>
<tr>
<td>Ethics C⁴</td>
<td>.010</td>
<td>.192</td>
<td>.066</td>
<td>-.006</td>
<td>-.064</td>
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<tr>
<td>P Score</td>
<td>-.125</td>
<td>.107</td>
<td>.056</td>
<td>.217</td>
<td>-.159</td>
<td>.254*</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Work: Number of years of work experience
2 Week: Working hours per week
3 Accou C: Number of Accounting courses
4 Ethics C: Number of courses with an ethics component
* * Correlation is significant at the 0.01 level (2-tailed).
* * Correlation is significant at the 0.05 level (2-tailed).
Results

The means and standard deviations for both male and female participants from two countries: Canada and Mainland China are presented in Table 5. The pooled mean for ethical reasoning score is 27.167. The overall mean of the ethical reasoning scores for Canada and China are 31.972 and 21.836 respectively. The mean of the ethical reasoning scores for Canadian male and female are 32.750 and 30.968 respectively, and for Chinese male and female are 20.758 and 22.984 respectively.

<table>
<thead>
<tr>
<th>Country</th>
<th>Gender</th>
<th>Pooled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male Mean (s.d.)</td>
<td>Female Mean (s.d.)</td>
</tr>
<tr>
<td>P Score</td>
<td>Canada 32.750 30.968</td>
<td>31.972</td>
</tr>
<tr>
<td></td>
<td>China 20.758 22.984</td>
<td>21.836</td>
</tr>
<tr>
<td></td>
<td>Pooled 27.329 26.976</td>
<td>27.167</td>
</tr>
</tbody>
</table>

Hypothesis Outcomes

The results of the ANOVA are presented in Table 6. The number of courses with an ethics component taken by the respondents was included as a covariate. Figure 1 and Table 7 present the estimated marginal means for the P scores for Canada and Mainland China.

Hypothesis 1 predicted that Canadians would have higher levels of ethical reasoning than Chinese. The significant effect of country in Table 6 (p = 0.000) provides support for this hypothesis. Figure 1 and Table 7 indicate that the estimated marginal
mean of P scores of Canadians (31.210) was higher than that of Chinese (22.628).

Figure 1 and Table 7 show the estimated marginal means for both males and females from Canada and Mainland China. Hypothesis 2 predicted that the ethical reasoning difference between Chinese men and women would be greater than the difference between Canadian men and women. However, the interaction of country and gender in Table 6 (p = 0.384) was not significant. Therefore Hypothesis 2 was not supported.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>4048.773</td>
<td>4</td>
<td>1012.193</td>
<td>6.735</td>
<td>.000</td>
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<tr>
<td>Intercept</td>
<td>52922.187</td>
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<td>52922.187</td>
<td>352.160</td>
<td>.000</td>
</tr>
<tr>
<td>Ethics C¹</td>
<td>456.043</td>
<td>1</td>
<td>456.043</td>
<td>3.035</td>
<td>.084</td>
</tr>
<tr>
<td>Country</td>
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<td>1</td>
<td>2147.292</td>
<td>14.289</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>10.350</td>
<td>1</td>
<td>10.350</td>
<td>.069</td>
<td>.793</td>
</tr>
<tr>
<td>Country * Gender</td>
<td>114.855</td>
<td>1</td>
<td>114.855</td>
<td>.764</td>
<td>.384</td>
</tr>
<tr>
<td>Error</td>
<td>19536.227</td>
<td>130</td>
<td>150.279</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>123218.750</td>
<td>135</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Corrected Total</td>
<td>23585.000</td>
<td>134</td>
<td></td>
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</tbody>
</table>

¹ Ethics C: Courses with an ethics component
Table 7. Estimated Marginal Means of Ethical Reasoning Levels (P Scores) for Country and Gender

<table>
<thead>
<tr>
<th>Country</th>
<th>Gender</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>Male</td>
<td>31.858</td>
<td>2.005</td>
<td>27.892</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>30.561</td>
<td>2.214</td>
<td>26.181</td>
</tr>
<tr>
<td></td>
<td>Pooled</td>
<td>31.210</td>
<td>1.513</td>
<td>28.216</td>
</tr>
<tr>
<td>China</td>
<td>Male</td>
<td>21.420</td>
<td>2.168</td>
<td>17.132</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>23.836</td>
<td>2.255</td>
<td>19.374</td>
</tr>
<tr>
<td></td>
<td>Pooled</td>
<td>22.628</td>
<td>1.594</td>
<td>19.475</td>
</tr>
</tbody>
</table>

Figure 1. Ethical Reasoning (P Score) Estimated Marginal Means for Canada and Mainland China

![Estimated Marginal Means of P Score](image)
CHAPTER SIX

Conclusion and Implications

The purpose of this study was to investigate cultural and gender effects on ethical reasoning in an auditing context by explaining the differences in ethical reasoning levels (Tsui, 1996; Thorne, 2000). An auditing context has seldom been used in cross cultural ethical reasoning studies.

Discussion

The first hypothesis was supported. Canadians have higher levels of ethical reasoning scores than Chinese. Low power distance, individualistic and short-term orientation Canadian accounting students had significantly higher ethical reasoning scores than their high power distance, collectivistic and long-term orientation Mainland Chinese counterparts. This finding supported the previous contention that dimensions of low power distance, individualism and short-term orientation are consistent with personally held principles, societal cooperation and consensus which describe the characteristic of the highest ethical reasoning level of Kohlberg’s CMD.

The second hypothesis was not supported. The difference between the ethical reasoning of male and female Chinese was not greater than the difference between male and female Canadians. Confucian teaching still shapes Chinese values and beliefs in contemporary China. However, the development of Chinese society and the adoption of Westernized opinions are possible reasons of the non-significant result for the second hypothesis. Undoubtedly, Confucian teaching has some positive effects on women. For
instance, it teaches women to behave ethically and decently. However, it safeguards men’s status rather than women’s rights. According to Confucius, women should take care of their husbands and children by doing chores. Women should not participate in any educational training, such as reading and writing, since this may result in their reluctance to stay in a subservient position. Overall Confucian teaching claims that men should have higher social status than women. With the modernization of Chinese society, the old generation may still hold the beliefs of Confucianism. However, young and educated individuals refuse to accept Confucian teachings that state men and women do not have equal social status. Since the Chinese respondents in the current study are young (the average age of Chinese sample is 22.6, ranging from 21 to 26) and educated (university students), this probably explains why the result is not as significant as expected. Future studies are needed to test the validity of this explanation.

**Limitations and Research Directions**

There are several limitations of the present study. First, the sample of this study is a convenience sample rather than a randomly selected sample. Both Canadian and Mainland Chinese samples were collected from one university in each country rather than collected across both nations. It is possible that the students who responded were not representative of the population in either country.

A second limitation is that respondents may not be representative because of self-selection bias. Subjects who chose to participate in the study may have different characteristics from those who chose not to participate.
A third limitation is that the current study did not consider the effect of the legal system in each country. Since Canada and China have significantly different legal systems and legal environments, it is hard to tell whether this played a role when respondents evaluated the ethical dilemmas.

Another limitation is that the post-test questionnaire did not request whether the respondents had work experience in auditing or whether they had taken auditing course. It is possible that audit work experience and taking an auditing course could have had an impact on their ethical reasoning scores. Finally, the survey utilized in the current study may not simulate the same pressures that would be experienced in an actual auditing environment.

This study extends prior research by using an accounting-specific instrument to measure the impact of Hofstede’s (1980, 2001) cultural dimensions on ethical reasoning. It provides an incentive to expand the study to examine culture effects, culture and gender interactions by using other countries which may include other dimensions of Hofstede’s culture theory.

In preliminary analysis, results of Pearson’s correlations showed that the number of courses with an ethics component taken by the respondents had a positive correlation to the P score. This was not found in prior research. This finding suggests that business schools should include ethics education in more of their business courses.
Implications and Conclusion

Ethical reasoning has attracted the attention of both researchers and practitioners. This study tested the impact of culture and gender on ethical reasoning levels. More specifically, this project explores the effects of power distance, individualism and long-term orientation and Confucian teaching on ethical reasoning for Canadians and Chinese. The use of Kohlberg’s (1969) theory of CMD together with Hofstede’s (1980, 2001) culture theory, provides us a better understanding of human’s reasoning process in an auditing context.

The result of the current study indicates that accounting students in Canada have higher ethical reasoning levels than those in China. The differences in ethical reasoning levels appear to be the result of different collective attitudes and status perceptions of accounting students from these two cultural environments. This suggests that culture has a significant effect on ethical reasoning. Higher ethical reasoning levels appear to be characterized by low power distance, high individualism and short-term orientation. These cultural dimensions are compatible with Kohlberg’s (1969) theory of CMD: fairness, justice and personally held principles.

Gender does not appear to have a significant effect on ethical reasoning. The current study finds that in both Canada and China the differences in ethical reasoning scores between males and females are very small. Since most of the studies investigating gender effects have been done in a North American context, the results from this study add further evidence and understanding to the literature of ethical
reasoning in an auditing context in a non-Western cultural environment.

A practical implication of the current study is that Canadian accounting firms operating in China must be aware of the cultural differences between Canadian and Chinese societies. The managers of accounting firms should give more instructions to their Chinese employees since Chinese employees expect their superiors to make decisions for them. Chinese employees tend to emphasize their superiors’ and peers’ opinions. Thus, whether the employees’ decisions are ethical or not is usually a result of the influence of their superiors and social/work groups. Canadian employers in accounting firms should attempt to stress the long-term positive implications of policies to encourage the endeavors of their Chinese employees. With regard to gender roles, Chinese societal norms are in a state of flux. Therefore when setting up accounting offices in China, Canadian managers must be aware of this changing environment and the different beliefs held by older and younger generations.

This study subjects the importance of culture on the ethical reasoning. Canadian managers of accounting firms need to be aware of culture specific characteristics of the country in which they choose to do business. By being aware of the cultural values and norms, that can be identified by the use of Hofstede’s culture theory, an accounting firm can develop a fair and equitable work place in which employees will be encouraged to make ethical decisions.
References


(September), 1-13.


Trevino, L. (1986). Ethical decision-making in Organizations: A Person-Specific


