

Accountants' Ethical Sensitivity

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Master of Science in Management (Accounting)

Submitted in partial fulfillment
of the requirements for the degree of

Master of Science in Management

Faculty of Business, Brock University
St. Catharines, Ontario

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“The man of character, sensitive to the meaning of what he is doing, will know how to discover the ethical paths in the maze of possible behavior.”

Earl Warren (American Republican Politician and Judge, 1891-1974)

Dedication

I dedicate this thesis to the people I love the most: my parents. I enormously thank them for being always available and their continuous support.

God keep them safe.

Abstract

O'Fallon and Butterfield (2005) in a review of the business ethics literature concluded that "ethical awareness" also called ethical sensitivity has received the least attention of the four steps in Rest's (1986) ethical decision making model. Available measures for ethical sensitivity are limited to specific contexts and suffer from several limitations. I extend the previous literature by creating a new measure for ethical sensitivity (AESS) that encompasses relevant dimensions for the accounting profession and is not specific to a particular setting. I also introduce a new individual differences variable to the accounting ethics literature. Specifically, I investigate the relationship between anti-intellectualism and ethical awareness. My findings support AESS as a measure of ethical sensitivity.

KEY WORDS: Ethical Decision Making, Ethical Sensitivity, Anti-intellectualism.

ABBREVIATIONS: AESS: Accountants' Ethical Sensitivity.

NOTE: For my purposes the terms sensitivity and awareness are used interchangeably throughout this paper.

Preface

Ethical behavior is a must in the accounting profession. Unfortunately, even though we work to eliminate it all the time, we still see unethical behavior in the profession. I am trying to support the profession and help the accountants to move forward in this effort.

Acknowledgment

I want to thank Professors Darlene Bay and Gail Cook for their tremendous support. They believed in me and never gave up on me. I owe my success as an academic to them and I will be forever thankful for their support.

I want to thank Professor Mark Julien for his valuable feedback.

I also want to thank Ms. Marisa Battista, and Ms. Betty McDowell, for their incessant support and kindness.

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I. INTRODUCTION:

Ethical decision making plays an important role in the accounting profession. Recent corporate scandals such as the Enron (2001) and WorldCom (2003) collapses brought the importance of ethical behavior in the business environment to a new level of awareness and increased the number of research studies in ethical decision making (O'Fallon and Butterfield's, 2005; O'Leary and Pangemanan, 2007). Many studies in ethical decision making rely on Rest's (1986) model, which divides the ethical decision process into four independent components: ethical awareness, ethical judgment, ethical intention and ethical behavior. By independent, Rest (1986) meant that the success of one step will not necessarily lead to the success of the following step. Ethical awareness (for my purposes, ethical awareness and sensitivity will be used interchangeably) represents the first step of the ethical decision making process and is critical to the outcome. Hall (1992, p.37) states that "we need to sensitize people to moral issues and ambiguities. We should be more concerned, perhaps, about the person who passes by a moral dilemma without recognizing it than we are about the person who consciously and callously commits a wrong. In the long run, moral insensitivity could be our biggest problem". Individuals, before engaging in the ethical decision process, need to recognize the presence of an ethical issue. If they do not, they may engage in an unethical activity without knowing it. Thus any efforts to improve the level of ethical behavior in the accounting profession must be predicated on a high level of ethical sensitivity among accountants.

The most recent literature review on ethical decision making (O'Fallon and Butterfield's, 2005) exposed the scarcity of research in ethical sensitivity. More specifically, their analysis concluded that there were only 28 ethical sensitivity findings compared to 185 for ethical judgment, 86 for ethical intent and 85 for ethical behavior. Their review of the literature included articles published in a specified set of journals from 1996 to 2003. Only 18 of these articles out

of 174 (10.34 %) were about ethical sensitivity with only six of those from the accounting discipline. Interestingly, only one paper included a Canadian sample (Cohen et al., 2001). I updated their sample and created a new list that included research in ethical sensitivity up to 2010. In the update to the review of the literature, there were only 26 journal articles on ethical sensitivity, from which three were in the accounting discipline. To summarize, I found only nine articles about accountant's ethical sensitivity and only two of them used a Canadian sample (Cohen et al., 1996 and Cohen et al., 2001). Interestingly, none of those studies included CMAs or CGAs in their sample. Based on my findings, research on Canadian accountants' ethical sensitivity is very limited and needs to be expanded to better understand the ethical conduct of Canadian accountants. Previous research showed significant differences between Canadian and U.S accountants' moral reasoning (e.g., Etherington and Schulting, 1995). I also recognize that some research failed to support the moral reasoning difference between Canadian and U.S accountants (e.g., Thorne et al., 2003). The disagreement in findings in the moral reasoning literature supports the need to better understand the ethical characteristic of the accounting population in both countries. Further, it should not be taken on faith that findings in the U.S. context will necessarily be generalizable to other cultures and other countries.

Research in ethical sensitivity is a very challenging task due to the situational nature of ethical behavior. Individuals may behave differently in different settings. Thus, the literature includes various methodologies to measure ethical sensitivity such as: vignettes or scenarios (Karcher, 1996; Cohen et al., 1996; Yetmar and Eastman, 2000; Cohen et al., 2001; Fleischman and Valentine, 2003; Valentine and Fleischman, 2003; Chan and Leung, 2006; Shawver and Senetti, 2009; Sparks and Hunt, 1998; Mugan et al., 2005), questionnaires (Ameen et al. 1996; Lau, 2010), and interviews (Lepper, 2005). However, , previous operationalizations of ethical

sensitivity suffer from several limitations: the absence of a control for social desirability bias, the lack of attention to moral intensity elements, the homogeneous structure of the instruments, the scarcity of dimensions and vignettes and a lack of generalizability. Most of the previous findings on ethical sensitivity are strictly context specific and are not generalizable to other settings. Unfortunately, this approach may not give us a good understanding of accountants' ethical sensitivity capable of helping the profession move forward in addressing the ethics problem.

Ethical sensitivity, the first step of Rest's (1986) model, requires the *recognition* of an ethical issue. The literature on ethical sensitivity includes several definitions for example, Butterfield et al.'s (2000, p.982) definition "a person's recognition that his/her potential decision or action could affect the interests, welfare, or expectations of the self or others in a fashion that may conflict with one or more ethical standards", or Shaub's (1993) definition "ability to recognize the ethical nature of a decision" (p.147). Shaub's (1993) definition is in agreement with all of the available definition for ethical sensitivity. Therefore, for my purposes, I use Shaub's (1993) definition to conceptualize ethical sensitivity.

The purpose of this study is to create a new measure of accountant's ethical sensitivity called: Accountant's Ethical Sensitivity Scale (AESS). The AESS measure targets better generalizability, fewer limitations and a finer proxy for accountant's ethical sensitivity. To accomplish this goal, I reviewed the literature on ethical sensitivity including non-accounting studies and identified the noted limitations. Based on these limitations, I identified a set of criteria that should be considered when constructing a measure for accountant's ethical sensitivity. These include: controlling for social desirability; including moral intensity; and using a balanced setting with a variety of dimensions and multiple vignettes.

Previous literature on ethics indicates the necessity of controlling for social desirability bias (Fernandes and Randall, 1992). Furthermore, accountants have certain characteristics, such as Machiavellianism, that reinforce the necessity of controlling for social desirability specifically for this population. More precisely, accountants are characterized by a low level of Machiavellianism compared to other professionals from other disciplines (Wakefield, 2008). Additionally, Machiavellianism is negatively correlated with social desirability (Jones and Kavanagh, 1996). Therefore, accountants are more likely to suffer from social desirability bias than individuals from other disciplines. Interestingly, out of the nine identified articles on accountant's ethical sensitivity only five controlled for social desirability bias. However, most of these studies employed the "Halo Effect" measure for social desirability instead of using a separate instrument. The "Halo Effect" is measured by calculating the difference between what the individual reports he would do and what he believes his peers would do. However, there is evidence indicating that this methodology (the "Halo Effect measure") is not a reliable measure of social desirability bias. These findings raise questions about previous results regarding accountant's ethical sensitivity. Therefore, I included a control for social desirability bias.

Jones (1991) argues that moral intensity has an impact on individuals' ability to recognize an ethical issue: "moral issues of high intensity will be more salient than those of low intensity" (p. 380). Therefore, moral intensity needs to be considered when establishing an ethical sensitivity measure. Interestingly, out of the nine accountants' ethical sensitivity studies, only two included moral intensity in their instrument. However, none of the studies included the moral intensity dimensions identified by Jones (1991). The literature shows that some moral intensity components are more predictive than others. The studies that controlled for moral

intensity did not pick a certain intensity component; rather, they varied the level of severity of their scenarios.

Jones (1991) proposed 6 moral intensity dimensions: magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity and concentration of effect. Including all of these dimensions will lengthen any instrument (each item would have 12 versions). Moreover, research on moral intensity (Frey, 2000; McMahon and Harvey, 2006) shows that a subset of these components may be enough to represent moral intensity. A consensus has been reached in the literature that magnitude of consequences and social consensus are important components of moral intensity (Waldron, 2009; O'Fallen and Butterfield, 2005; McMahon and Harvey 2006). Therefore, I include both: magnitude of consequences and the social consensus in my instrument to reinforce its reliability.

In order to measure ethical sensitivity, respondents need to distinguish between ethical and unethical issues. Interestingly, most of the research on ethical sensitivity (1 out of 9) did not include an ethical statement in their instrument. The prevalence of unethical issues in the scenarios jeopardizes the balance of the instrument. Individuals were asked to identify to what extent they perceived the issue as unethical knowing that it was unethical. In this case respondents did not have to identify the issue as ethical or unethical. This approach does not fit the theoretical framework of the ethical sensitivity literature. For this reason, I created a balanced setting, in which I included ethical and unethical issues. The presence of ethical issues in the scenarios strengthens the balance of the AESS.

Previous instruments used to measure ethical sensitivity suffer from a limited number of dimensions. Unless the vignettes load on different dimensions, their usage limits the findings on accountants' ethical sensitivity to the context presented to the respondents. Only one instrument

in the ethical sensitivity literature has different dimensions and thus the potential ability to generalize its finding to a larger sample. The Multidimensional Ethical Scale (MES) explains why accountants perceive an issue as ethical or not and explains a proportion of their intention to commit an ethical act. However, it is important to mention that the MES does not fully explain the full complexity of the ethical decision dynamic but only explains a proportion of it. Moreover, the MES literature contains many inconsistencies, which jeopardize claims about its reliability. Jones and Ponemon (1993 p.411), criticizing the Flory et al. (1992) study, argue that “the multidimensional scale fails to provide a useful psychometric construct for measuring the ethical thinking process for professional accountants”. A consistent set of dimensions will mitigate this problem. Items in my instrument are associated with seven dimensions. These dimensions will contribute to a higher generalizability than previous attempts in the ethical sensitivity literature.

To summarize, the AESS mitigates several problems encountered with other instruments by controlling for social desirability, including a moral intensity treatment, creating a balance between ethical and unethical items, using a variety of dimensions and using multiple vignettes. The AESS targets Canadian accountants and for this reason, before finalizing the instrument, six accountants from three different accounting organizations, CAs, CMAs and CGAs, provided valuable feedback on relevance and wording. Changes were made based on their comments. Furthermore, I pre-tested the instruments’ internal validity by administering it to fourth year accounting co-op students. These students have had accounting work experience. Again, minor changes were made to the instrument based on the feedback from this group.

Results from the analysis showed that the AESS has a good internal, content and construct validity. The data support the hypothesized relationships between Relativism,

Machiavellianism and Anti-Intellectualism, and ethical sensitivity. These relationships show that the instrument is actually measuring ethical sensitivity and that overall, results from this study provide support for the use of the AESS as a measure of accountants' ethical sensitivity.

The remainder of my paper is organized as the following. In the second section, I provide a literature review for ethical decision making and ethical sensitivity. I also review empirical studies of moral intensity and Multi- Dimensional Ethical Scale (MES). Then, I review research results relating to the criterion variables used to establish content validity: Anti-Intellectualism (AI), Machiavellianism, Relativism and Idealism. In the third section, I present my model and develop my hypotheses. The fourth section explains the methodology used to develop and test the AESS. Section 5 reports the results from my tests. In section 6, I discuss my findings. Section 7 and 8 provide the limitation and future research respectively.

II. LITERATURE REVIEW:

A. Ethical Decision Making Literature:

Ethical decision making plays an important role in the accounting profession. Recent corporate scandals such as the Enron (2001) and WorldCom (2003) collapses brought the importance of ethical behavior in the business environment to a new level of awareness and increased the number of research studies in ethical decision making (O'Leary and Pangemanan, 2007; O'Fallon and Butterfield's, 2005). The literature provides us with various definitions for ethical decision making. For example: Jones (1991 p. 367) defines an ethical decision as a "decision that is both legal and morally acceptable to the larger community", whereas an "unethical decision is either illegal or morally unacceptable to the larger community". The Australian Association of Social Workers (AASW) Code of Ethics (AASW, 1999,Section 5.1) defines ethical decision making as a "process of critical reflection, evaluation and judgment through which a practitioner resolves ethical issues, problems and dilemmas" (p. 22). Cohen et

al. (2001, p. 321) define ethical decision making as “decision making in situations where ethical conflicts are present”.

The development of models of ethical decision making, like the development of agreed upon definitions, has been important to the development of research in business ethics. Ferrell and Gresham (1985), Trevino (1986), Rest (1986), Bommer et al. (1987) and Jones (1991) have all provided theoretical models that represent the foundation of research in ethical decision making. These conceptual models did not include empirical tests. Based on these models, empirical work took various forms to investigate the impact of various variables on ethical decision making. Below, I review several ethical decision making models. Only Rest’s (1986) model contains specific reference to ethical sensitivity. However, the other models are important to understanding of the breadth of the research that has been conducted to date into ethical decision making.

Some research took place before the appearance of these theoretical frameworks (Carrol, 1975; Bowman, 1976; Brenner and Molander, 1977; Hegarty and Sims, 1978; Ward and Wilson, 1980; Dubinsky and Ingram, 1984). Most of this research looked at the impact of elements of the organizational environment such as pressure, reinforcement mechanisms (reward, punishment and availability of a code of conduct) and competitiveness (Carrol, 1975; Bowman, 1976, Brenner and Molander, 1977). Findings from these studies were mixed and very little attention was given to other factors such as cultural variables, personality characteristics and the intensity of the ethical issues. The lack of theoretical frameworks and guidance may explain why research in ethical decision making in the mid-seventies and early eighties could not precisely identify variables that may have an impact on ethical decision making (Bommer, 1987).

Ferrell and Gresham (1985), using a contingency framework, proposed determinants for ethical and unethical decision making. They identified 4 constructs: individual factors, significant others, organizational factors, and opportunity. The individual factors (knowledge, values, attitudes and intentions) were based on philosophical perspectives: utilitarianism, teleological and deontological philosophy, rights principles and justice principles. The influence of significant others was posited based on two theories: differential association theory (Sutherland and Cressey, 1970) and role-set theory (Merton, 1957). Under the differential association theory individuals learn from others' behavior (Sutherland and Cressey, 1970). This plays an important role in the ethical decision process since it permits the identification of referents (individual that have an influence over others' behavior) (Ferrell and Gresham, 1985). The role-set theory complements the differential association theory by explaining the interaction between the focal and the referent individual. This theory focuses on the distance between these two types of individuals. Ferrell and Gresham (1985) expected that the greater the distance between the referent and the focal decision maker the less impact the referent can have on ethical/unethical decision making. This theory supports the investigation of whether individuals' ethical/unethical decision making in an organization is influenced by peer groups or upper management (referent other). Ferrell and Gresham (1985) also proposed that opportunity can be one of the determinants of ethical/unethical decision making. By opportunity we mean punishment and reward (internal and external). The organizational factors include daily tasks such as meeting the business goals. Individuals within a firm seek recognition and good performance evaluation. Ethical conduct within an organization may not always play in favor of reaching these goals. Reaching these goals and obtaining a good performance evaluation creates pressure that may push an individual to engage in an unethical behavior. Ferrell and Gresham

(1985) proposed various propositions of how individuals may be influenced throughout their decision-making process.

Treviño (1986), based on Kohlberg's (1969) work, proposed a theoretical model that considers the interaction of individual and situational factors in the ethical decision making process. Kohlberg (1969) argued that individuals determine what is right and what is wrong based on their level of cognitive moral development (CMD). However, the cognitive development by itself is not enough to explain or predict ethical/unethical behavior since someone's behavior could also be affected by individual and situational factors. Individual factors are "attributes that are unique to the decision-maker and covers two main features namely, demographic and psychological" (O'Leary and Pangemanan, 2007, p. 217). Treviño (1986) presented three individual factors: ego strength, field dependence and locus of control and, three situational factors: immediate job context (reinforcement and other pressure), organizational culture (normative structure, referent others, obedience to authority and responsibility for consequences) and characteristics of the work (role taking and resolution of moral conflict). The model proposed by Treviño (1986) proposes that the interaction between these individual factors and the situational factors will have an impact on the connection between cognition and ethical actions.

Bommer et al.'s (1987) conceptual model reduces the complexity of the determinants of ethical/unethical decision making and represents the first trial in the literature to map determinants of ethical and unethical decision making. The model includes six components: work environment, professional environment, personal environment, government/legal environment, social environment, and individual attributes (moral level, personal goals, motivation mechanism, position/status, self-concept, life experiences, personality and

demographics). They argue that information acquisition, information processing, cognitive process, perceived rewards and perceived losses all mediate the relationship between ethical/unethical behavior and these six components. They also point out that these factors do not uniquely determine ethical decision making, rather the combination between these factors merely influences the decision maker's preference for ethical behavior over unethical or vice versa.

In the same paper, Bommer et al. (1987) presented another model for the decision making process which breaks it down into multiple steps. The manager first perceives a problem associated with environmental factors (this step is quite close to ethical sensitivity). Then, he filters (selective perception process) the associated information. Finally, based on his individual attributes and cognitive process, he constructs the conceptual model of the decision space. Hogarth (1980) showed that people's capacity to receive information is limited. Bommer et al. (1987), building on Hogarth's (1980) work, concluded that decisions made by individuals could also reflect their limitation in information processing.

Rest's (1986) model has been most widely used in the accounting ethics literature. His model breaks down the ethical decision making process into four separate steps: (1) recognizing the moral issue, (2) making a moral judgment, (3) establishing moral intent, and (4) acting on the moral concerns. In the first step, the individual recognizes the existence of an ethical issue. Some individuals may not be able to recognize the presence of an ethical dilemma and therefore will not engage in an ethical decision making process. In the second step, the individual analyzes the ethical issue using his cognitive abilities. Individuals have different levels of cognitive moral development and therefore different ways to make a moral judgment (Kohlberg, 1976). Once an individual has made his moral judgment, he determines his intentions (Step 3). In this phase

individuals analyze the interaction of different factors at stake. For example, once an individual judged that a proposed action was unethical he may have the intention to behave unethically and may not. His intention will depend on other factors such as pressure or the opinions of significant others. Once an individual has determined his intentions, the last step is to implement his intentions (act as planned). Rest (1986) argues that these steps are independent and the success of one does not depend on the success of the other. For example, an individual's intentions do not depend solely on his moral judgment.

Figure 1: Rest's Model



Jones (1991), from Rest's (1986) ethical decision making model, developed a new theoretical model to better understand the ethical decision making process. His model represents the first attempt in the literature to incorporate moral intensity issues into the ethical decision process. Jones' (1991) model focuses on the interaction between moral intensity and Rests' (1986) four steps in ethical decision making (recognize moral issue, make moral judgment, establish moral intent and engage in moral behavior). A moral issue is present in a situation where "the action or decision must have consequences for others and must involve choice, or volition" (Jones, 1991 p. 367). Jones (1991) argued that individuals respond to the intensity of the moral issue and not just to the issue itself. Jones (1991, p.381) argues that "High-intensity moral issues are salient and vivid, they will be more likely to catch the attention of the moral decision maker..." He proposed six characteristics: Magnitude of Consequences (MC): "the sum of the harms (or benefits) done to victims (or beneficiaries) of the moral act in question" (p. 374), Social Consensus (SC): "the degree of social agreement that a proposed act is evil (or good)" (p.

375), Probability of Effect (PE):” a joint function of the probability that the act in question will actually take place and the act in question will actually cause the harm (benefit) predicted” (p. 375), Temporal Immediacy (TI): “the length of time between the present and the onset of consequences of the moral act in question (Shorter length of time implies greater immediacy)” (p. 376), Proximity (PX): “the feeling of nearness (social, cultural, psychological, or physical) that the moral agent has for victims (Beneficiaries) of the evil (beneficial) act in question” (376), and Concentration of Effect (CE): “an inverse function of the number of people affected by an act of given magnitude” (p.377).

Each component of moral intensity is expected to incrementally impact the intensity of the moral issue. Every moral issue encompasses all of these characteristics that interact with each other. For this reason we should only consider the incremental effect of each of these characteristics. These characteristics do not include the decision maker’s personal traits or the effect of the environment around him. Moral intensity characteristics are strictly related to the particular moral issue. Jones (1991) argued that these characteristics will have an impact on individuals when recognizing the moral issue, making moral judgments, establishing moral intent and engaging in moral behavior. Organizational factors, on the other hand, will only intervene when establishing moral intent and engaging in moral behavior. Thus, Jones’ moral intensity variables can be expected to impact ethical sensitivity, while his organization variables would not.

The models by Ferrell and Gresham (1985), Treviño (1986), Rest (1986), Bommer et al. (1987) and Jones (1991) were not empirically tested when they were proposed. A significant number of research studies in ethical decision making applied some aspects of their theoretical propositions and have provided empirical tests for those relationships.

Ford and Richardson (1994) provided a review of the empirical work done on the determinants of ethical decision making. They broke down these determinants into two different categories: individual and situational factors. Individual factors consist of personal attributes (age, sex, religion and nationality), education/employment background (type of education, years of education, employment and years of employment) and personality traits (Machiavellianism, locus of control and other variables). Situational factors consist of referent groups (peer group influence, top management influence and sanction and rewards), code of conduct, type of ethical decision, organizational factors (organization effects (organizational climate), organization size, and organization level) and industry factors (industry type and business competitiveness). Ford and Richardson (1994) concluded that empirical research in business ethics has not yet been able to establish a strong basis due to the limited research in some areas and mixed conclusions in others. Research results on personal attributes and education/employment background are mixed: some studies find that personal attributes and education/employment background have an impact on ethical decision making and other studies find that personal attributes and education/employment background do not have an impact on ethical decision making. Results from research on personality traits are likewise not clearly established. However, Machiavellianism has been verified as a personality variable strongly related to ethical decision making.

A more recent review of the literature (see list of journals below) was completed by O'Fallon and Butterfield (2005). Their review of the literature included research in ethical decision making published in top business journals from 1996 to 2003. They grouped the ethical decision making studies into four categories following Rest's (1986) model. Based on their findings, ethical sensitivity has received the least attention in the literature followed by ethical intention.

O' Fallon and Butterfield (2005) constructed a table including the number of findings reported for different independent variables. Interestingly, a significant number of independent variables were only tested with the last three steps of Rest's model: ethical sensitivity was excluded. For example, locus of control and Machiavellianism were used in studies for judgment and intent but not for ethical sensitivity.

B. Ethical Sensitivity Literature:

a. Definitions:

Ethical sensitivity, the first step of Rest's (1986) model, requires the recognition of an ethical issue. Individuals may engage in unethical behavior if they fail to recognize the presence of an ethical issue. For example, Gioia, a Ford Motor Company Recall Coordinator, was not able to recognize ethical issues when making the decision not to recall the Ford Pinto because his cognitive motivation relied upon scripts that did not include ethical dimensions (Gioia, 1992). He stated that he "unconsciously overlook[ed] key features of the Pinto case... Although the outcomes of the case carry retrospectively obvious ethical overtones, the schemas driving my perceptions and actions precluded consideration of the issues in ethical terms because the scripts did not include ethical dimensions" (Gioia 1992, p.385). Moreover, Hall (1992, p.37) stated that "we need to sensitize people to moral issues and ambiguities. We should be more concerned, perhaps, about the person who passes by a moral dilemma without recognizing it than we are about the person who consciously and callously commits a wrong. In the long run, moral insensitivity could be our biggest problem".

The literature on ethical sensitivity has employed several definitions for ethical sensitivity. For example, Butterfield et al. (2000, p.982) define it as "a person's recognition that his/her potential decision or action could affect the interests, welfare, or expectations of the self

or others in a fashion that may conflict with one or more ethical standards". Shaub (1993, p.147) defines ethical sensitivity as the "ability to recognize the ethical nature of a decision". Shaub states that (1993, p.157) for him, the "recognition of the ethical issues in the scenario, regardless of the importance attached to these issues, served as the absolute measure of ethical sensitivity". Bebeau et al.'s (1985, p.226) definition "involves an awareness that something one might do or is doing can affect the welfare of someone else (or may affect others' welfare indirectly by violating a general practice of commonly held social standard)", or Sparks and Hunt's (1998) conceptualization of Volker's (1984) theory, where they conceptualize ethical sensitivity as the "the ability to recognize that a decision-making situation has ethical content and the ascription of importance to the ethical issues composing that content" (p.95). All of these definitions have much in common with definition of the first step of Rest's (1986) model which consists of the decision maker's ability to recognize an ethical issue. For that reason, and because Rest's model is important to this research as well as many accounting ethics studies, that is the definition that is employed in this paper. Ethical sensitivity and ethical awareness are two interchangeable terminologies in the literature and for this reason they both appear in this paper.

b. Research on ethical sensitivity:

O'Fallon and Butterfield's (2005) review of the literature shows that, even though ethical sensitivity is an important step in Rest's (1986) model; it is the least explored dimension. Their work represents a continuation of previous literature reviews by Loe et al. (2000) and Ford and Richardson (1994). O'Fallon and Butterfield (2005) searched for the term "ethical decision-making" in ABI/Inform and PsycINFO. They included articles published between 1996-2003 in the following journals: *Academy of Management Journal*, *Administrative Science Quarterly*,

Business Ethics Quarterly, Human Relations, Journal of Academy of Marketing Science, Journal of Business Ethics, Journal of Business Research, Journal of Marketing, Journal of Personal Selling & Sales Management, Accounting, Auditing, & Accountability Journal, Business & Society, European Journal of Marketing, International Journal of Management, Journal of American Academy of Business, Journal of Applied Social Psychology, Journal of Management Studies, Journal of Managerial Issues, Journal of Marketing, Journal of Organizational Behavior, Managerial Auditing Journal and Organizational Behavior and Human Decision process. O'Fallon and Butterfield (2005) classified the 174 identified journal articles according to where they fit into Rest's (1986) model. Their analysis indicates 28 findings for ethical sensitivity, 185 for ethical judgment, 86 for ethical intent and 85 for ethical behavior.

From their analysis, I extracted the articles related to ethical awareness (Table 1) and found 18 articles related to ethical awareness (10.34 % of the total number of articles). Interestingly, only 6 of these studies were in accounting and only one of them used a Canadian sample.

Following the same methodology, I updated the sample. To better match my objectives, I only included articles from ABI/Inform and searched for "ethical sensitivity" or "ethical awareness". After revising the search engine results (I only considered articles that were focused on ethical sensitivity), as illustrated below, I found 7 new articles in ethical sensitivity (Table 2). These papers form the basis of the literature review that follows.

Table 1: List of Papers Relating to Ethical Sensitivity

Authors	Journal	Year	Accounting	SAMPLE
Ameen et al.	JBE	1996	Yes	U.S
Karcher	JBE	1996	Yes	U.S
Sparks and Hunt	JOM	1998	No	N/A
Singhapakdi et al.	JAMS	1999	No	N/A
Weaver and Treviño	BEQ	1999	No	N/A
Butterfield et al.	HR	2000	No	N/A
Singhapakdi et al.	JBE	2000	No	N/A
Yetmar and Eastman	JBE	2000	Yes	U.S
Cohen et al.	JBE	2001	Yes	Canada
Singhapakdi et al.	JBE	2001	No	N/A
Barnett and Valentine	JBR	2002	No	N/A
May and Pauli	B&S	2002	No	N/A
Cherry et al.:JBE	JBE	2003	No	N/A
Fleischman and Valentine	JBE	2003	Yes	U.S
Valentine and Fleischman	JBE	2003	Yes	U.S
VanSandt	B&S	2003	No	N/A
Singhapakdi et al.	JBE	1996a	No	N/A
Singhapakdi et al.	JBR	1996b	No	N/A
Total number of article = 18				

*JBE: Journal of Business Ethics, *JBR: Journal of Business Research, *HR: Human Relations, *B&S: Business and Society, *JAMS: Journal of Academy of Marketing Science, *JOM: Journal of Marketing, *BEQ: Business Ethics Quarterly.

Table 2: Update for Papers Relating to Ethical Sensitivity

Author	Journal	Year	Accounting	Sample
Conroy and Emerson	JBE	2004	No	U.S
Lepper	JBE	2005	No	U.S
Mugan	JBE	2005	No	U.S/Turkey
Chan and Leung	MAJ	2006	Yes	Hong Kong
Oumlil and Balloun	JBE	2008	No	U.S/ Marroco
Shawver and Senetti	JBE	2009	Yes	U.S
Lau	JBE	2009	No	Not specified

* Managerial Auditing Journal

c. Operationalization of ethical sensitivity and critique:

Ethical sensitivity has been measured in various ways. Shaub's (1993) ethical sensitivity instrument consists of one auditing scenario that contains three moral issues. After reading the

scenario, he asked participants to indicate the number of issues they encountered in the case and the importance of the issue. The moral issues were: “1. the failure of staff to charge time required to complete the job (‘eating hours”); 2. The use of client or firm time to write a note to a prospective employer; and 3. The subordination of an auditor’s judgment over an issue involving generally accepted accounting principles” (Shaub, 1993 p. 161).

Shaub’s measurement of ethical sensitivity raises some concerns. His instrument asked respondents to list the issue(s) about which they were concerned. Some respondents may have seen an issue but were not worried about it, and therefore did not list it. Ethical sensitivity by definition is the recognition of an ethical issue and not the concern about it. Shaub (1993) used only one scenario to capture respondents’ ethical sensitivity. Finch (1987, p.112) stated “...on the basis of a single vignette one can probably make clear statements only about the particular circumstances specified”. Moreover, Randall and Gibson (1990) argued in favor of using multiple vignettes instead of one or only a few. Increasing the number of vignettes is a very tempting approach to deal with the situational aspect of the ethical decision making process. Citing the work of Higgins, Power, and Kohlberg (1984), Treviño (1986, p.610) explained that “moral action takes place in social context and can be influenced heavily by situational variables. Therefore, ethical/unethical behavior in practical situations is not simply a product of fixed individual characteristics, but results from an interaction between the individual and the situation”. However, the question becomes how many vignettes should one use (Finch, 1987). It will be very difficult to include all the possible combinations of ethical dilemmas. Furthermore, using multiple vignettes may be misleading. Vignettes represent hypothetical situations where the respondents need to picture themselves and their behavior. Respondents may behave differently in a real life situation than in a hypothetical situation (Rooks et al., 2000).

Ameen et al. (1996) measured ethical sensitivity by administering a 23 item questionnaire containing unethical issues with which students were familiar. The questionnaire asks students to provide their opinions about the severity of the stated unethical activity based on a 5-point likert scale. All the items included unethical behavior related to academic misconduct. This setting lacks ambiguity and makes it easier for respondents to know the purpose of the study. Furthermore, respondents were not tested for their ability to recognize an unethical issue. The issue was there and they were asked to provide an opinion and judge its severity. As shown, the format of the instrument deviates from the definition of ethical sensitivity and does not test students' ability to recognize an ethical issue.

Karcher (1996) used three scenarios from the Trueblood Case Series (Deloitte and Touche, 1989). The chosen ethical issues were tax evasion, independence and plant relocation. The scenarios with different levels of severity were administered to CPAs working for the Big Six firms. Participants were asked to write down the issues they encountered in the cases. Two independent judges had a list of the issues and coded the respondents' answers as dichotomous variables (issue mentioned or not). This study is limited by the use of only three vignettes. The low number of vignettes reduces the generalizability of the findings because some accountants may be able to recognize an ethical issue in those specific scenarios but not in others and vice versa.

Sparks and Hunt (1998) conceptualized two definitions of ethical sensitivity: (1) based on Shaub's (1989) theory: "Ethical sensitivity is the ability to recognize that a decision-making situation has ethical content" (p. 95) and (2) based on Volker's (1984) theory: "Ethical sensitivity is the ability to recognize that a decision-making situation has ethical content and the ascription of importance to the ethical issues composing that content" (p.95). The first

definition considers ethical sensitivity as a dichotomous variable (recognize an issue or not) and the second definition considers it as a continuous variable (to what degree individuals recognize the issue). They created a research design to test for differences between these two definitions. They argued that teachers and students have different levels of ethical sensitivity. Their model included seven predictor variables (the independent variables) and two dependent variables (two approaches to measure ethical sensitivity). The first measure of ethical sensitivity consisted of the unweighted ethical sensitivity scores (identifies the number of ethical issues detected by the respondents, similar to the technique used by Butterfield as cited above). The second measure consisted of the weighted ethical sensitivity based on responses on a 7-point Likert scale. They use a marketing research case to measure ethical sensitivity. Their instrument suffers from the same limitation presented in Karcher's (1996) study. The generalizability of their findings is limited to this unique scenario that contained a limited set of ethical issues.

Sparks and Hunt (1998) also explored the difference between the two definitions of ethical sensitivity and tried to empirically identify the superior view. The authors defined two measures for ethical sensitivity; the first model uses mean weighted measures for the dependent variable and the second model uses an unweighted measure (ranges from 0 to 3: it only shows the number of identified issues and does not show to what extent they were recognized). Then, using LISREL7, they compared the model fit between both models. They argued that a significant difference between those models will demonstrate that one approach is superior to the other one. Results using the equality constrained approach (paths between each dependent variable to the independent variable were equal) showed a significant difference between the two models. Due to the high correlation (.95) between the dependent variables the authors examined both models without the equality constraint and reported that the models were not significantly

different. These results are contradictory to the theoretical framework. Based on both definitions of ethical sensitivity, an individual needs to recognize an issue and then assess its importance. More precisely, the recognition of an ethical issue happens before the determination of its extent. Once an individual is assessing the magnitude of the ethical dilemma, we can infer that he recognized the existence of this ethical issue. This explains the high correlation between both dependent variables in this paper since recognizing an ethical issue is embedded in assessing its extent. We would not expect a significant difference in model fits.

Butterfield et al. (2000) measured ethical sensitivity qualitatively; they asked the respondents to list relevant issues in two scenarios. Then, they classified these issues in two categories based on whether included moral issues were mentioned or not. Once they coded all the issues listed by respondents, they added up the scores and came up with a moral awareness score. As discussed previously, the lack of diversification of ethical dilemmas represents a significant limitation to their findings.

Yetmar and Eastman (2000) used four tax scenarios containing eight ethical issues (one ethical issue in the first and second scenario, four ethical issues in the third scenario and two issues in the fourth scenario) and administered them to experienced professional accountants. Participants had to identify any issues they encountered and determine their degree of significance on a 7-point likert scale. Each issue score ranged from zero to seven (zero if the respondent was unable to recognize the issue and one to seven, depending on the degree of significance accorded). The instrument included a different number of issues in each scenario. However, all scenarios included at least one issue. The inclusion of neutral scenarios is necessary to preserve the instrument's balance and to prevent an artificial increase in respondent's sensitivity. Karcher (1996), for example, provided respondents with neutral, severe

and less severe ethical scenarios to mitigate increased sensitivity. Adding neutral statements reminds the respondents that the statements are not necessarily unethical and therefore they need to implement their judgment as if they were in a real life dilemma.

Mugan et al. (2005)'s ethical sensitivity instrument included sixteen vignettes, each containing an ethical dilemma. After administering the survey, they ask the respondents to judge the ethicality of the actions portrayed in the vignettes using a 7-point likert scale (from definitely ethical to definitely unethical). They speculate that this measure measures ethical sensitivity. More precisely, they defined ethical sensitivity as "the tendency to judge the conduct unethical, thus higher scores are associated with greater ethical sensitivity" (p.147). This definitions deviates from previous literature on ethical sensitivity and refers more to the moral reasoning component in the ethical decision process (Rest (1986)'s second step) where respondents have to rely on their cognitive abilities to judge what is right or wrong.

Lepper (2005) used a funnel interview technique (they start by asking the respondents questions in a general manner and get more specific toward the end) to measure ethical sensitivity. In her study, she provided her interviewees with two taped ethical scenarios followed by interview questions and a questionnaire. The interviews lasted for about 45 minutes. The questions fit the definition of ethical sensitivity; however, the instruments suffer from significant limitations. First, only two scenarios were used; respondents who are familiar with those two specific situations will have different results from individuals who never faced such dilemmas. Second, face-to-face interviews may not be a reliable measure of ethical sensitivity because of the lack of anonymity and the increased risk of social desirability bias. Finally, both scenarios were taped; some respondents may not recall all the elements from the tape. More specifically, some respondents may be better at recognizing ethical issues when they are presented paper-

based rather than in an audio tape. Her instrument format may suffer from a primacy/recency effect. Under the primary/recency theory, individuals are more likely to retrieve information about things said in the beginning and at the end than things said in the middle. Further, the interview format is very time consuming and limits the sample size that can be obtained.

Lau (2010) used the Attitude Toward Business Ethics Questionnaire (ATBEQ) to measure ethical sensitivity. Each of the 30 items on the ATBEQ represents a statement about an ethical issue. Once administered to the target sample, the researcher asks the respondent whether they agree or disagree with the statements. The ATBEQ was widely used to capture ethical values in a certain culture (e.g., Moore & Radloff, 1996; Sims, 2006). The authors speculate that ethical sensitivity (awareness) and ethical attitude toward business ethics is the same. The ATBEQ measures ethical values and does not capture someone's ability to recognize ethical issues. Most of the statements do not depict an ethical dilemma. Respondents only provide their opinions about broad moral value statements which do not picture an ethical dilemma where they have to make a judgment. For example, in item 24 on the ATBEQ: "the business world has its own rules", respondents only agree or disagree with the statement, but this does not provide us with their ability to perceive or judge an ethical dilemma.

d. Independent variables and findings:

Some research in ethical sensitivity has been conducted to identify factors that influence individuals' capability to recognize an ethical issue. Butterfield et al. (2000) investigated the impact of some of the moral intensity components defined by Jones (1991), as well as framing and competitiveness on moral awareness. Specifically, they examined the impact of magnitude of consequences (MC), framing (F) and social consensus (SC) on competitive intelligence practitioners (CI). They used a between subjects design, where they administered two scenarios

each with different manipulations. The usage of CIs represented an important feature in this study. The authors argued that the competitive intelligence field is relatively new and ethical codes are not fully defined. Therefore, respondents will rely more on their personal moral scripts rather than scripts determined by the industry. One scenario was about mystery shoppers and the other about hiring. In the mystery shoppers' scenario, a middle level manager had to choose between recommending a mystery shopping project or not. In this project, a significant amount of money was given to CIs and they were asked to buy financial plans from competitors and extract as much information as they could. In the second scenario, a middle level manager had to decide between hiring two individuals, where both individuals had equal competencies; however, one of them had information about the business's competitors and was willing to share these information once hired. Both of these scenarios were considered by the researchers to be ethically ambiguous. An ambiguous setting would help the researcher to better identify what drove the respondent's ethical awareness. Both scenarios contained manipulations for MC and F. For MC they used low and high manipulations. For example, in the mystery shopper setting, they told the respondents that the competitors would go out of business in the high MC treatment, and in the low MC treatment they would increase their own profits while decreasing the competitors' profits. The framing manipulations consisted of wording manipulations, where some words were chosen to better trigger the moral cognitions. For SC and competitiveness, they administered a questionnaire.

Butterfield et al. (2000), found significant support for the impact of MC and SC on ethical awareness. However, they found weak support for the impact of framing on ethical awareness. Interestingly, their findings related to the competitiveness hypothesis were in the opposite direction from the hypothesis. They predicted that competitiveness would mask their

moral cognitive framework and individuals would unquestioningly follow instructions given by the organizations. However, based on their findings, competitiveness increased moral awareness.

Using an exploratory approach, Sparks and Hunt (1998) investigated the impact of organizational socialization, professional socialization, empathy, relativism and ethics training on ethical sensitivity. Organizational socialization is “the process by which a person learns the values, norms and behaviors which permit him [or her] to function as a member of the organization” (Van 1976, p.67). Sparks and Hunt (1998) argued that the internalization of the organizational values should make the individual more ethically sensitive. In their findings, they reported a significant relationship between ethical sensitivity and organizational socialization. However, this finding is contradicted by findings reported by Shaub (1989), where he did not find a significant relationship between ethical sensitivity and organizational socialization.

Sparks and Hunt (1998) also included professional socialization in their model. The authors argue that a higher professional socialization means a higher learning of professional values and norms. They hypothesized that a higher professional socialization should be associated with a higher level of ethical sensitivity. Their findings partially supported this hypothesis. They also tested for the relationship between empathy and ethical sensitivity. Empathy included perspective taking (the cognitive component of empathy) and emotional contagion (the affective dimension of empathy). They argued that higher empathy should generate higher ethical sensitivity. They found a significant relationship between perspective taking and ethical sensitivity, and no significant relationship between emotional contagion and ethical sensitivity. They concluded that the impact of empathy on ethical sensitivity was cognitive in nature.

Ethical training was the last independent variable in their model. Sparks and Hunt (1998) argued that more training would result in a higher awareness of ethical dilemmas. Surprisingly, in their analysis, they found a negative relationship between ethical sensitivity and ethical training. This contradicts the assumption that ethical awareness is learned. The authors argue that this reversed relationship may be due to ethics education that focuses on strengthening the individual's relativistic behavior.

Sparks and Hunt (1998) argue that professionals should have higher ethical sensitivity than marketing students due to a higher exposure to ethical issues. They also argue that first year students will have lower ethical sensitivity than students in their final year. Those arguments are built upon the assumption that ethical sensitivity is a learning process and the more an individual learns about ethical dilemmas the more sensitive she becomes. Their results showed that there is a significant difference between practitioners and students. However, they found no difference between students in different years. Because this paper is exploratory in nature, we should be very careful interpreting the results. Research in ethical behavior showed that the individual's level of cognitive moral development (CMD) has an impact on ethical behavior (Green and Weber, 1997). The difference between marketing research practitioners and students' ethical sensitivity may be due to the difference in their CMD stage. It is possible that using the CMD approach provides a better explanation for the authors' findings. Students in the first and last year of their education may share the same CMD stage, which explains why they did not have a significant ethical sensitivity difference. Moreover, professionals may have a higher CMD stage than students and this also explains the results reported by the authors.

Shaub (1993) investigated the relationship between idealism, relativism, organizational commitment, professional commitment and ethical sensitivity. His scenario contained three

ethical issues. Eighty percent of his sample recognized the first issue, 23% recognized the second issue and 42% recognized the third issue. He reported a negative relationship between idealism and ethical sensitivity, and relativism and ethical sensitivity. Shaub (1993) predicted a positive relationship between idealism and ethical sensitivity: "idealists will tend to focus on harm to others. To the extent that an idealist perceives that others will be harmed by someone's actions. He/she would be expected to recognize an issue as having ethical content" (Shaub, 1993 p.154). He reported his findings (a negative relationship) as surprising. He explained the deviation from the predicted outcome by the unpredicted focus of its respondents (respondents focused on the avoided harm rather than on the caused harm). Yetmar and Eastman (2000) define idealism as "the extent of an individual's concern with the welfare of others and how strongly the individual believes that harming others is always avoidable" (p .275). Therefore, highly idealistic individuals are concerned about the amount of harm associated with an action. They would spend more effort while assessing an ethical dilemma to avoid any possible harm to others.

Karcher (1996) investigated the impact of specific factors on ethical sensitivity. She explored the nature of the issue, its severity, the respondents' age, their position and expertise, their prior exposure and their educational level. Based on the results, age was a significant factor for recognizing an ethical issue. Older respondents had a higher level of ethical sensitivity. Interestingly, she could not support the relationship between the other factors listed above and ethical sensitivity. Based on her findings, employee position, previous exposure to similar ethical issues, degree level, gender and level of expertise did not have a significant relationship with ethical sensitivity.

Yetmar and Eastman (2000) built upon Hunt and Vitell's (1986, 1993) model of ethical decision making and investigated the impact of role conflict, role ambiguity, job satisfaction,

relativism and professional commitment on ethical sensitivity. These factors map into three of the five factors defined by Hunt and Vitell: role conflict, job satisfaction and job ambiguity represented the organizational environment; relativism was used for personal characteristics; and, professional commitment for the professional environment. Cultural environment and industry environment were not examined in this study. They provided support for the relationship between role conflict and job satisfaction and ethical sensitivity. Role conflict had a negative relationship with ethical sensitivity, whereas job satisfaction was positively related. However, based on their results, no support was provided for the impact of relativism, professional commitment or role ambiguity on ethical sensitivity.

Ameen et al. (1996) investigate the role gender plays in ethical sensitivity. The effect of gender could be analyzed using the socialization approach or the structural approach (Betz et al. (1989). The socialization approach suggests there will be a difference between men and women when it comes to ethical sensitivity. More precisely, the socialization approach is based on the differing values that males and females bring to the work place. Males are usually more competitive and are more likely to be willing to ignore the rules to achieve their objectives and females care more about work relationships and give more attention to the task. The structural approach posits no difference between males and females, since it argues that the reward system for ethical conduct should have an impact on both genders and therefore they would be similar. Ameen et al. (1996) adopted the socialization approach and argued that females should have a higher ethical sensitivity than males. Using accounting students as a sample, they distributed a 23 item survey depicting ethical dilemmas students may face in their environment. The findings supported their hypothesis and provided evidence that females were significantly more ethically sensitive than males.

Using Shaub et al.'s (1993) instrument to measure ethical sensitivity, Chan and Leung (2006) investigate the relationship between ethical reasoning, personality factors and ethical sensitivity. Their personality factors included: ethical orientation (relativism and idealism), locus of control, age, gender and academic performance. They administered their instrument to 156 accounting students in Hong Kong. They found no significant relationship between ethical sensitivity and ethical reasoning. Their finding supports Rest's (1986) theory by showing that high moral reasoning does not imply a better recognition of an ethical dilemma—those two steps in the model appear to be independent as posited by Rest. More interestingly, they found a significant relationship between locus of control and ethical sensitivity.

The concept of locus of control comes from Rotter's (1954) social learning theory. In his book, he explains that individuals behave in a certain way to satisfy an expected reinforcement. He pointed out that this attitude is determined by the individual's perception of her own influence on the outcome of the desired reinforcement. More precisely, some individuals may think that they control their destiny when others do not. Rotter (1966 .p 1) defines Locus of Control as: "when a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When an individual interprets the events in this way, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control."

Chan and Leung (2006) find that "internal" accounting students were better at recognizing an ethical issue than "external" accounting students. However, among all personality

factors, locus of control was the only personality trait that significantly correlated with ethical sensitivity. No support was found for ethical orientation, age, gender or academic performance.

Lau (2010) investigates the relationship between ethics education, ethical awareness and moral reasoning. Her findings show that ethics education improves students' ethical sensitivity and moral reasoning.

C. Empirical Studies of Moral Intensity:

Jones (1991) argued that individuals respond to the intensity of the moral issue and not just to the issue itself. Jones proposed six characteristics of moral intensity (Table 3).

Some research studies have (e.g., McMahon and Harvey, 2006; Frey, 2000) investigated the dimensions of Jones' (1991) moral intensity. For example, Singhapakdi (1996) tested Jones' (1991) theoretical model empirically by testing the relationship between moral intensity and ethical perception (using four ethical scenarios). They tested the dimensions of the moral intensity using an orthogonal rotation. All of the responses related to moral intensity loaded on two factors. The first factor included MC, PE, TI, and CE and was labeled the "perceived potential harm/ no harm" dimension. The second dimension included SC and PX and it was labeled "perceived social pressure". These results held for three out of four scenarios, the last scenario produced only one factor. Using regression analysis, they showed that both of these dimensions were significant determinants of ethical perception. Overall, their results provide empirical support for Jones' (1991) model: moral intensity is a determinant of ethical perception.

Table 3: Jones' Moral intensity characteristics

Moral Intensity	Definition	Examples
MC: Magnitude of Consequences	The sum of the harms (or benefits) done to victims (or beneficiaries) of the moral act in question" (p. 374)	An act that causes 1,000 people to suffer a particular injury is of greater magnitude of consequence than an act that causes 10 people to suffer the same injury (p. 374)
		An act that causes the death of human being is of greater magnitude of consequence than an act that causes a person to suffer a minor injury (p. 374)
SC: Social Consensus	The degree of social agreement that a proposed act is evil (or good). (p. 375)	The evil involved in discriminating against minority job candidates has greater social consensus than the evil involved in refusing to act affirmatively on behalf of minority job candidates. (p. 375)
		The evil involved in bribing a customs official in Texas has greater social consensus than the evil involved in bribing a customs official in Mexico. (Nehmkis, 1975 as cited in Jones, 1991, p. 375)
PE: Probability of Effect	A joint function of the probability that the act in question will actually take place and the act in question will actually cause the harm (benefit) predicted. (p. 375)	Producing a vehicle that would be dangerous to occupants during routine driving maneuvers has greater probability of harm than producing a vehicle that endangers occupants only during rear-end collisions. (p. 375)
		Selling a gun to a known armed robber has greater probability of harm than selling gun to a law-abiding citizen (p.375)
TI: Temporal Immediacy	The length of time between the present and the onset of consequences of the moral act in question (shorter length of time implies greater immediacy). (p. 376)	Releasing a drug that will cause 1 percent of the people who take it to have acute nervous reactions soon after they take it has greater temporal immediacy than releasing a drug that will cause 1 percent of those who take it to develop nervous disorders after 20 years. (p.376)
		Reducing the retirement benefits of current retirees has greater temporal immediacy than reducing retirement benefits of employees who are currently between 40 and 50 years of age. (p. 376)
PX: Proximity	The feeling of nearness (social, cultural, psychological, or physical) that the moral agent has for victims (beneficiaries) of the evil (beneficial) act in question. (p. 376)	Layoffs in a person's work unit have greater moral proximity (physical and psychological) than do layoffs in a remote plant. (p. 376)
		For U.S citizens, the sale of dangerous pesticides in U.S markets has greater moral proximity (social, cultural, and physical) than does the sale of such pesticides in Latin America. (p. 376)
CE: Concentration of Effect	An inverse function of the number of people affected by an act of given magnitude. (p. 377)	A change in a warranty policy denying coverage to 10 people with claims of \$ 10,000 has a more concentrated effect than a change denying coverage to 10,000 people with claims of \$10.00. (p. 377)
		Cheating an individual or small group of individuals out of a given sum has a more concentrated effect than cheating an institutional entity, such as a corporation or government agency, out of the same sum. (p.377/378)

*Information in this table was taken from Jones (1991).

Frey (2000) also investigated the dimensionality of moral intensity and reported two different dimensions. The first dimension included; MC, SC, PE, PX and TI and the second one included CE. However, their stability analysis (they split the sample in two halves) showed that TI, CE and PX were unstable. Based on those results, they argued that moral intensity is largely encompassed in one dimension, with MC, SC and PE being the most important aspects of the construct. Moreover, McMahon and Harvey (2006) investigated this dimensionality in a series of studies. In the first study, they used an exploratory factor analysis to develop moral intensity factor loadings. The results were then further tested in a second study (using a confirmatory factor analysis). Based on their results, moral intensity loaded on three factors. The first factor is “magnitude of consequences” and contains MC, PE, TI, the second factor is “proximity” (PX) and the third factor is “social consensus” (SC). MC and SC were always found to be significant in all of those studies, but they loaded on different factors when the study reported more than one factor loading. A consensus has been reached in the literature that magnitude of consequences and social consensus are important components of moral intensity (Waldron, 2009; O’Fallen and Butterfield, 2005; McMahon and Harvey 2006).

D. Multi-Dimensional Ethical Scale (MES) Literature:

A significant research stream has developed based on an instrument called the Multi-Dimensional Ethical Scale (MES), originally intended to measure ethical orientation. Reidenbach and Robin (1988) argued that studies in descriptive ethics to date had relied solely on two moral philosophies: deontology and utilitarianism. Due to the pluralistic nature of moral philosophy, they followed Beauchamp and Bowie (1983), and Donaldson and Werhane (1983) and argued that other moral philosophies such as relativism, egoism and justice should be considered. They developed a 29 item scale including all five moral philosophies. They asked subjects to read

three scenarios and to state how important each philosophical dimension was in evaluating the ethical act. They found that subjects did not use only one dimension. In all scenarios, subjects relied on several different moral philosophies, which provided support for considering more philosophical theories in research regarding ethical decision making. Importantly, the philosophies used changed from one scenario to another, suggesting that the evaluation criteria for each ethical dilemma is situational (varies from one situation to another).

Based on the dimensions identified above, Reidenbach and Robin (1990) created the 33 item MES. They added two questions: one for the subjective probability that the respondent would take the action, and one for assessing the ethicality of the action. The instrument was tested on a sample of managers. Factor analysis revealed three factors: a moral equity factor (containing justice, relativistic and deontological dimensions), a relativistic factor and a contractualism factor. As shown, one of the relativistic questions loaded on the moral equity factor. This is due to a difference in perception of one of the questions (the dilemma is “acceptable/not acceptable to my family”) While constructing the survey, the judges predicted this question would belong to the relativistic dimension, however, the factor loading shows that the respondents did not perceive it as relativistic. The moral equity dimension contains three moral philosophies, which the authors believed to be general knowledge regarding what is right and wrong. The relativistic dimension shows that ethical beliefs are relative to cultural and social learning. The contractualism dimension is solely deontological, which the authors describe as a social contract between individuals and society. Results from each dimension were regressed on both ethical perception and ethical intent (as measured by the two final questions. The results showed that on average these dimensions explained 34% of the variation in individuals’ intention to behave ethically.

Flory et al. (1992) applied Reidenbach and Robin's (1988, 1990) MES in an accounting context where they used four accounting scenarios. The results supported the generalizability of Reidenbach and Robin's (1990) results with the responses to the four scenarios loading on the same three factors; moral equity, relativism and contractualism. The MES explains why accountants perceive an issue as ethical or not and it also explains a proportion of their intention to commit an ethical act. However, it is important to mention that the MES does not fully explain the complexity of the ethical decision dynamic. It only explains a reasonable proportion of it. Moreover, the argument behind the use of the MES is that morality is situational and cannot be uniform. More precisely, the results of administering the MES will vary depending on the scenario or the ethical conflict. Flory et al. (1992), in their concluding remarks, invite other researchers to use this scale in various contexts in order to better understand the dynamics of accountants' ethical decision making. Due to the large number of possible situational scenarios, it would be very difficult and time consuming to replicate the MES in all different situations. In addition, as more scenarios are added, the MES becomes increasingly longer and more difficult to administer due to its length. Without a more complete testing of scenarios, the results are not uniquely explained by the theory. Jones and Ponemon (1993 p.411), criticized Flory et al.'s study and argued that their MES fails to answer the question "What makes an accountant more or less ethical?" Moreover they explain two weaknesses: the absence of psychological theories and an over reported reliability. Jones and Ponemon argue that Flory et al.'s analysis fails to consider individual differences such as beliefs and values: the uniformity of these psychometric characteristics represents a significant flaw in the paper. Jones and Ponemon (1993) also suggested a reliability bias due to sampling and design issues. They argue that subjects used in this study were not randomly assigned and therefore they were highly homogeneous. Moreover,

the way the survey was designed likely resulted in low disagreement between subjects because most of their subjects are most likely aware of the ethical issues, causing them to converge toward the extremes. They also argue that the social desirability response bias issue still existed because of the role playing context.

Cohen et al. (1993) argued that the utilitarian dimension should be considered separately and was not captured by Flory et al.'s study (1992) because of their sample characteristics. Flory et al.'s sample consisted of accountants from south eastern United States, and was thus not culturally diversified. Cohen et al. (1993) used the MES with a culturally diverse sample (members of the international section of the American Accounting Association), to whom they administered a total of six accounting and marketing scenarios. Their results showed the emergence of the utilitarianism factor in some, but not all, of the vignettes, which may represent some of the missing variability in Flory et al.'s (1992) study. Their study also supports the generalizability of the MES since factor loadings were similar in the marketing and accounting context.

Cohen et al. (1996) continued to investigate the appropriateness of the inclusion of the utilitarian dimension in the MES. Their results showed that the utilitarian dimension loaded in all of the vignettes used in the study and, in one vignette, explained more variance than the relativistic dimension. Based on those results, they argue that the utilitarian dimension plays an important role in the ethical decision-making dynamic. Moreover, they posit that the MES might be used in a different manner to measure ethical awareness. They use fairness as a measure for recognition of ethical issues. "A respondent that identifies an action as fair has recognized no ethical (defined as fairness) problem in the action, while a response that the action is unfair recognizes that the action is unethical (defined as fairness)" (Cohen et al. 1996 p.107). The

problem here is the assumption behind the relationship between fairness and awareness. There is no support for such a relationship. Moreover, individuals may recognize an unethical issue and consider it as fair. Cohen et al. (1996) also attempted to measure moral development stage using the MES. They speculate that individuals with high cognitive moral development will score high on specific dimensions such as individual rights, justice and ethical principles and individuals with lower cognitive moral development would score high on the approval of others or respecting authorities. Using a regression analysis, they examined the relationship of the MES dimensions with ethical evaluation. Their results indicated that those relationships were not consistent across vignettes. More precisely, depending on the vignette, particular dimensions had different degrees of influence (which matches with Treviño's (1986) argument about the situational characteristic of ethical responses).

Shawver et al. (2008) used the MES to explore corporate governance and whistle blowing characteristics of professional accountants using the same scenarios used in Cohen et al. (1996). Their factor loadings showed three different factors. The first factor included two items from fairness scales and two items from deontology scales. This differs from Cohen et al.'s (1996) moral equity dimension, which included two fairness items, one deontological item, and one relativistic item. Shawver et al.'s (2008) second factor had two relativistic items, one utilitarian item and one deontological item. However, Cohen et al.'s (1996) second factor (relativistic) included two items from the relativistic scales. Finally, Cohen's et al. (1996) contractualism dimension included two deontological items, where Shawver et al. (2008) reported one relativistic item, and one utilitarian item. Both of those studies used the same scenarios and distributed them to professional accountants. The difference between the reported results creates doubt about the reliability of the MES to capture how accountants approach an ethical issue.

Previous studies that used the MES defended the inconsistency between vignettes due to the situational characteristics of the ethical dilemmas. However, when comparing both of these studies, the situational aspect of ethical dilemmas is controlled by the use of the same scenarios and similar subjects. In another study, Shawver et al. (2007) used the same vignettes used by Cohen et al. (1996) and distributed them to accounting students. Interestingly, the deontological dimension was not significant in this sample. These inconsistencies jeopardize claims about the reliability of the MES. These results indicate that the MES may not be a comprehensive measure for accountant's ethical behavior.

E. Anti-Intellectualism Literature (AI):

Hofstadter (1963, pg.7) defined anti-intellectualism as the: "resentment and suspicions of the life of the mind and of those who are considered to represent it; and a disposition constantly to minimize the value of that life". Shaffer (1981), in differentiating between recipe knowledge (a concept he borrowed from Peter Berger and Thomas Luckmann's influential book: *The Social Construction of Reality* (1967)) and traditional knowledge defines anti-intellectualism as "an extension of recipe knowledge" (Shaffer, 1981 .pg. 71). Berger and Luckmann (1967) illustrate recipe knowledge using the following example:

...I use the telephone every day for specific pragmatic purposes of my own. I know how to do this. I also know what to do if my telephone fails to function – which does not mean that I know how to repair it, but that I know whom to call on for assistance...All of this telephonic lore is recipe knowledge since it does not concern anything except what I have to know for my present and possible future pragmatic purposes. I am not interested in why the telephone works this way, in the enormous body of scientific and engineering knowledge that makes it possible to construct telephones. Nor, am I interested in uses of the telephone that lie outside my purposes, say in combination with short-wave radio for the purpose of marine communication. Similarly I have recipe knowledge of the workings of human relationships. (p. 42)

Shaffer (1981) distinguishes between these types of knowledge using four characteristics: memorization (traditional knowledge focuses on understanding rather than memorizing while recipe knowledge focuses on memorization), certainty (traditional knowledge allows individuals to question certain things and nothing becomes an indubitable truth while under recipe

knowledge things are not subject to questioning), transcendental versus experiential (transcendental knowledge goes beyond concrete experiences; experiential knowledge includes the perceived facts of the situation) and personal versus impersonal . Shaffer (1981 pg. 75) defines an intellectual and anti-intellectual person in the following way: “an ‘intellectual’ in some sense steps outside the daily life to study non-routine problems, and evaluates the world of culture or expression in terms of some subordinate values. From this point of view, a person who holds the pragmatic motive and demands the education conform to relevance is profoundly anti-intellectual.”

Previous literature on anti-intellectualism has questioned whether we should consider anti-intellectualism to be a personality trait (Howley, 2002; Eigenberger, 2002). Eigenberger and Sealander (2001) suggested that anti-intellectualism is a heritable trait related to “openness to experience”. Howley (2002) argues that intellectualism is, in some ways, related to intelligence which, in turn, is still not clearly defined as a personality trait or something else. For this reason, Howley (2002) argues that we should be very careful when formulating assumptions about anti-intellectualism as a personality trait. Eigenberger (2002) responded to Howley (2002), articulating the difference between intellectualism and intelligence. He defined anti-intellectualism as: “more a characteristic and stylistic way of expressing or applying one’s intelligence” (Eigenberger, 2002 pg. 593). This debate in the literature cautions us to be careful when we link anti-intellectualism to personality traits.

Rosen (1964), while measuring cognition motivation, found that a student’s level of intellectualism had a significant impact on seven out of the twelve scales he used. Rosen’s (1964) sample contained three different groups: high, medium and low depending on the academic program in which the students were enrolled. The assumption was that choice of

college program reflected more than cognitive motivations. Interestingly, Rosen (1964) found that individuals can be socially anti-intellectual but not religiously anti-intellectual. Moreover, subjects from the high group (honors program) had a lower level of social anti-intellectualism than students in the low group. Rosen (1964) explored anti-intellectualism from a social/religious perspective while other researchers have tried to break down anti-intellectual into more detailed components. For instance, Rigney (1991) refined Hofstadter's work and identified three sources of anti-intellectualism 1) religious anti-rationalism; 2) populist anti-elitism; and 3) unreflective instrumentalism. Each source represents a different form of anti-intellectual perspective. Religious anti-rationalism represents warm emotion versus cold reason and absolutism versus relativism. Based on this source, an anti-intellectual individual is more emotional than an intellectual who is considered cold in emotions. Further, within this source anti-intellectualism would be strongly related to absolutism (the acceptance of facts without questioning them) and weakly related to relativism (everything could be questioned). Populist anti-elitism arises from the tension between intellectuals and elitists (Rigney, 1991). In this context, elitists are privileged people holding an important political position and intellectuals are individuals with superior knowledge. Anti-elitism results in depriving intellectuals of holding elite positions in society (democratization of the intellect). Unreflective instrumentalism does not consider as worthwhile ideas that don't have an immediate result or are not practical. In this context, an idea is practical exclusively if it is useful for problem solving. In essence, unreflective instrumentalism would not consider any knowledge that does not serve as an immediate input into solving problems (Rigney, 1991).

Eigenberger and Sealander (2001) created a 25-item scale to measure students' anti-intellectualism. This scale was validated by comparing results to the Openness to Experience

scale of the Revised NEO Personality Inventory (NEO-PI-R, Costa & McCrae, 1992), the Inventory of Learning Process (Schmeck, et al., 1977), the California Critical Thinking Skill Test (Facione, 1990), the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1964), the shortened version of Altemeyer's Right-Wing Authoritarianism scale (1996) and a shortened version of Altemeyer's Dogmatism scale (1996). The Cronbach alpha was highly significant ($\alpha = .890$) indicating that this scale has a high level of reliability. In addition, the scale correlated in the expected manner with other measures, providing evidence of its construct validity. Howley (2002) argues that Eigenberger and Sealander's (2001) scale for anti-intellectualism may have some limitations based on the assumption that if anti-intellectualism is a cultural phenomenon, then intellectuals will represent a minority and most students, teachers and employers will be anti-intellectuals. Eigenberger (2002) responded to Howley (2002) and agreed that the anti-intellectualism scale may contain some limitations. However, this scale is now used across disciplines to study phenomena related to anti-intellectualism (Hook, 2004; Laverghetta et al., 2007; Elias, 2008, 2009).

Hook (2004) used the anti-intellectualism scale with the student's adjustment scale (based on the four elements identified by Baker and Siryk (1999) - academic adjustment, attachment to an institution of learning, social adjustment, and emotional adjustment) to investigate the relationship between student's adjustment to college and anti-intellectualism. He found a negative relationship between anti-intellectualism and students' adjustment to college. Moreover, he reported that anti-intellectualism is unrelated to the social and personal-emotional adjustment subscales of the student adaptation to college questionnaire.

Laverghetta et al. (2007) measured the correlation between political conservatism and anti-intellectualism and found a positive correlation ($r=.37$, $p<.03$) between anti-intellectualism

and political conservatism. Surprisingly, Laverghetta et al. (2007) found that graduate students scored significantly lower on the scale than first year university students.

Elias (2008) investigated the relationship between anti-intellectualism and self-efficacy. He found that students' levels of anti-intellectualism varied depending on their major (undeclared, accounting, management and marketing), their year in school (freshmen, sophomores, junior, senior and graduate) and whether they are traditional or non-traditional students (non-traditional students are students who are older than 25). Elias (2008) found that non-traditional students had a lower level of anti-intellectualism than traditional students, freshmen and sophomores had a score similar to graduate students and higher than juniors and seniors, undeclared majors had the highest score followed by accounting, management, marketing and economics. Elias (2008) also reported that GPA was negatively related to anti-intellectualism.

Elias (2009) extended his study to investigate the impact of anti-intellectualism and academic self-efficacy on business students' perceptions of cheating. His study was similar to the study done by Smyth et al. (2004) on the perception of dishonesty among two-year college students. Elias' (2009) results showed students that scored higher on the anti-intellectualism scale were more likely to view cheating as acceptable. Based on these results he concluded that instructors should work on reducing anti-intellectualism among students and employers should consider the level of anti-intellectualism of applicants during the hiring process. This is based on the assumption that students, as future professionals, will carry this behavior to their work place.

F. Machiavellianism Literature:

Hunt and Chonko (1984, p.30) define Machiavellianism as a "negative epithet, indicating at least an amoral (if not immoral) way of manipulating others to accomplish one's objectives".

A Machiavellian administrator is "one who employs aggressive, manipulative, exploiting, and devious moves in order to achieve personal and organizational objectives." (Calhoun, 1969 p.211). Christie and Geis (1970) considered Machiavellianism to be a personality trait and constructed a 20-item scale to capture individual differences based on their level of Machiavellianism. This scale is known as the Mach IV scale and is used in most of the studies that explore Machiavellianism. The scale contains three categories: machiavellian tactics (9 items), views of human nature (9 items), and abstract morality (2 items). Theoretical scores in the Mach IV scale range from 40 to 160, with 100 as the neutral benchmark. Individuals who score above (below) 100 have high (low) levels of Machiavellianism. In order to explore the individual differences based on different levels of Machiavellianism, Christie and Geis (1970) reported the results of 38 studies which used the Mach 4 scale. Their general conclusion was "high Machs manipulate more, win more, are persuaded less, persuade others more, and otherwise differ significantly from low Machs." These differences occur in situations in which "subjects interact face to face with others, when the situation provides latitude for improvisation,. . . and in situations in which affective involvement with details irrelevant to winning distracts low Machs" (p. 312).

Research showed that Machiavellianism has an impact on ethical behavior. Jones and Kavanagh (1996) investigated the relationship between Machiavellianism and ethical behavior and found that individuals who scored high on the Mach IV scale were more likely to behave unethically than individuals with lower levels of Machiavellianism. Interestingly, they found a significant negative correlation between Machiavellianism and social desirability. Individuals with low Machiavellianism had a higher score in social desirability than individuals with high Machiavellianism.

Singhapakdi and Vitell (1990) investigated the impact of a code of ethics, Machiavellianism and locus of control on ethical decision making. They used two scenarios representing two types of organizations: an organization that has a reinforced code of ethics and an organization that doesn't have a code of ethics and its manager is involved in unethical behavior. Their findings indicated that ethical policies and Machiavellianism had an association with perceived ethical problems (ethical awareness). They reported a negative correlation between Machiavellianism and perceived ethical problems. Individuals with low Machiavellianism seem to consider ethical problems more seriously than individuals with high Machiavellianism. The regression analysis for punitive actions showed a positive relationship with Machiavellianism. Individuals with high Machiavellianism are less likely to favor non-punitive actions.

Rayburn and Rayburn (1996) explored the relationship among certain personality traits (type A personality and Machiavellianism), gender, and ethical behavior (using participants' responses to 27 ethical statements) for a sample of 123 undergraduate students. Using the Mach IV scale, they classified individuals into two categories: Machiavellian (individuals who scored 80 and above) and Non-Machiavellian (individuals who score below 80). Their results showed that Machiavellians are less likely to be ethically oriented than Non-Machiavellians. It should be noted that these authors chose a cutoff slightly below that recommended by Christie and Geis (1970).

Verbeke et al. (1996) investigated the relationship between Machiavellianism and ethical decision making for salespeople. Their results showed a significant negative path between Machiavellianism and ethical decision making. Moreover, they reported that an organization

with a strong ethical climate attracted individuals with low Machiavellianism (Cronbach alpha = .670).

Bass et al. (1999) investigated the impact of ethical ideology, Machiavellianism, locus of control and just world belief on ethical judgment and intention to behave unethically. They used the MES to measure ethical judgment and intention. For their purposes they used two scenarios distributed to members of the American Marketing Association (AMA). Results from the first scenario supported the predicted positive relationships between Machiavellianism and both ethical judgment and ethical intentions. However, in the second scenario, the relationship between Machiavellianism and ethical judgment was not significant (the relationship between Machiavellianism and ethical intentions was supported). Respondents rated scenario one as portraying the more unethical action. This may explain the absence of the relationship between Machiavellianism and ethical judgment in the second scenario. Variations in moral intensity produced different results. The findings supported Jones' (1991) theory; moral intensity should be taken into consideration when studying mechanisms of ethical decision making.

Research on accountants' level of Machiavellianism is limited. Wakefield (2008), using the Mach IV scale, compared accountants' scores on Machiavellianism to other scores reported in previous studies (purchasing managers, Hong Kong managers, college students, community college teachers, specialty store managers, sales professionals, marketers, adults, U.S managers, Hong Kong bankers, U.S bankers, school superintendents). His sample included CPAs from Massachusetts and Pennsylvania. He found that accountants scored the lowest after school superintendents (the average score was 80.9). Christie and Geis (1970) defined a neutral benchmark for Machiavellianism equal to 100. An average score of 80.9 showed that CPAs are characterized by low Machiavellianism. Wakefield (2008) explored the relationship between

Machiavellianism and age, gender, education, income, position, job satisfaction, career satisfaction and to accountants' ethical ideology. His results supported the relationship between education and career satisfaction. Accountants with higher education had a higher level of Machiavellianism. Accountants with higher levels of Machiavellianism seemed to have lower career satisfaction. Wakefield (2008) also explored the relationship between ethical ideology and Machiavellianism. Ethical ideology includes two factors: idealism and relativism. These two factors are theorized to play a key role when an individual is approaching a moral issue. Relativism (idealism) describes individuals that are more likely to reject (accept) moral absolutes when assessing the ethicality of a moral issue. His results showed a negative relationship of Machiavellianism with idealism and a positive relationship with relativism. Specifically, high Mach accountants are more relativistic than low Mach accountants, and high Mach accountant are less idealistic than low Mach accountants.

G. Relativism and Idealism Literature:

Schlenker and Forsyth (1977) argue that idealism and relativism are two factors able to explain variation in individuals' judgment when they face a moral issue. Relativistic individuals represent those who are more likely to reject moral absolutes, and believe, instead, that what is ethical depends on the situation. Specifically, those individuals think of moral issues as situational and every situation has its own set of codes. No code can encompass all situations. Highly idealistic individuals are those who believe that harm can be avoided by making the correct decision and therefore are less likely to recognize negative outcomes that may result from such decisions. Table 4 presents Forsyth's (1980) four theoretical ethical types that result from the interaction between relativism and idealism:

Table 4: Taxonomy of Ethical Ideologies

Idealism	Relativism	
	High	Low
High	Situationalists Rejects moral rules: advocates individualistic analysis of each act in each situation	Absolutists Assumes that the best possible outcome can always be achieved by following universal moral rules
Low	Subjectivists Appraisals based on personal values and perspective rather than universal moral principals	Exceptionists Moral absolutes guide judgments but pragmatically open to exceptions to these standards; utilitarian.

From Forsyth (1980, p 176)

Forsyth (1980) developed the Ethical Position Questionnaire (EPQ) instrument to capture these two factors. The EPQ has 10 items to capture relativism and 10 items to capture idealism. Scores from this scale will differentiate between relativistic and idealistic individuals. Combining both scores together will allow the researcher to assign an ethical ideology from the above table to individuals.

Bass et al. (1999) investigated the impact of ethical ideology on ethical judgment and intention to behave unethically. They found a significant negative relationship between idealism and ethical judgment. Results with respect to the relationships between idealism and behavioral intentions, relativism and ethical judgment, relativism and behavioral intention were not supported. Specifically, they found that highly idealistic individuals are less likely to consider questionable ethical issues as acceptable.

Shaub (1993) investigated the relationship between relativism, idealism and ethical sensitivity. The significant findings ($p < .01$) supported a negative relationship between relativism and ethical sensitivity. This result is as expected, since highly relativistic individuals are less likely to accept moral absolutes, and therefore are less likely to follow a code of ethical

conduct. The results also partially supported the negative relationship between ethical sensitivity and idealism ($p < .053$). Similar findings were reported by Sparks and Hunt (1998).

III. SCALE DEVELOPMENT:

Within the ethical decision making literature there is a lack of research on ethical sensitivity (O' Fallon and Butterfield, 2005). The literature also points out the measurement issues related to ethical awareness and the situational nature of ethical dilemmas. Further, research in accountant's ethical sensitivity (Karcher, 1996; Cohen et al., 2001; Fleischman and Valentine, 2003; Valentine and Fleischman, 2003) is very limited and inconclusive. In this paper, I propose and test a new measure of accountants' ethical sensitivity that considers the limitation in previous research. In the table below, I present the accounting studies of ethical sensitivity with the limitations found for each study. The limitations examined are:

1. The use of a limited number of vignettes (the use of few vignettes limits the generalizability of findings and conclusions, since the conclusions are drawn from specific scenarios or context administered to the participants)
2. The lack of dimensionality (unless we can group certain items into a dimension, we cannot generalize or predict ethical sensitivity)
3. The lack of balancing unethical issues with ethical issues (some studies focused only on unethical issues and did not give the participant a chance to identify an ethical issue),
4. The exclusion of the moral intensity factor proposed by Jones (1991) (research on ethics has shown the importance of moral intensity in all of the steps of the ethical decision process),
5. The failure to control for social desirability bias (the lack of this control jeopardize the reliability of the findings).

While not a limitation, as such, the lack of studies employing a Canadian sample is also a concern. There is no reason to suppose that results generated in other countries and other cultures will generalize to the Canadian environment. Further the one study that uses a Canadian sample, Cohen et al. (2001), targeted accountants working in the “Big Five Canada”, and thus is limited to one professional body in Canada (CAs).

Table 5: Studies and Limitations

Paper	Journal	Year	Sample	Acctg	Used a separate instrument to control for social desirability bias	Included moral intensity	Mixed ethical and unethical items	The instrument has multiple dimensions	The use of multiple vignettes
Ameen et al.	JBE	1996	U.S.	√	×	×	×	×	√
Karcher	JBE	1996	U.S.	√	×	√	√	×	×
Cohen et al.	BRA	1996	Canada	√	×	×	×	√	×
Yetmar and Eastman	JBE	2000	U.S.	√	√	√	×	×	×
Cohen et al.	JBE	2001	Canada	√	×	×	×	√	×
Fleischman and Valentine	JBE	2003	U.S.	√	√	×	×	×	×
Valentine and Fleischman	JBE	2003	U.S.	√	√	×	×	×	×
Chan and Leung	MAJ	2006	Hong Kong	√	×	×	×	×	×
Shawver and Senetti	JBE	2009	U.S.	√	√	×	×	√	×
Current study		2010	Canada	√	√	√	√	√	√

My Accountants’ Ethical Sensitivity Scale has been created to overcome these limitations.

A. Accountant's Ethical Sensitivity Scale (AESS) development:

a. Instruments' development:

Most of the research on accountant's ethical sensitivity uses scenarios to capture ethical sensitivity (Shaub, 1993; Cohen et al., 1996; Karcher, 1996). The use of scenarios is very convenient in ethics research because it has good external validity (reflects ethical issues in realistic frameworks). However, a weakness of this research design is that it provides findings only for specific ethical situations. Specifically, it tests for relationships between ethical sensitivity and independent variables in specific scenarios. In addition, even within the same study, results may vary across scenarios, (e.g., Cohen et al., 1996; Cohen et al., 2001) resulting in generalizability issues. Findings from prior research in ethical sensitivity provide a foundation for future development in the area. However, these findings are limited to the described scenarios.

One of the purposes of this study is to create a measure of ethical sensitivity that is not limited to a particular context. My ethical sensitivity scale is inspired by an anchored ethical behavioral scale from the ethical performance appraisal literature in a working paper by Cardy and Selvarjan (2004). In their study, they use Bernardin and Beatty's (1984) behaviorally anchored rating scale (BARS) procedure to construct an anchored ethical behavior scale using the six dimensions from Akaah and Lund's (1994) research. Cardy and Selvarjan (2004) concluded with a 32-item questionnaire loading on the six dimensions (personal use, passing blame, bribery, falsification, padding expenses and deception) defined by Akaah and Lund (1994).

Interestingly, none of these dimensions has been investigated in the accounting ethics literature although the dimensions tap issues that are applicable to most professions including the accounting profession. The dimensions exist in the professional work place and represent daily

moral issues. These dimensions allow me to explore ethical sensitivity from a broader perspective so I can assess accountant's ethical sensitivity in general.

I begin by modifying some of the items introduced by Cardy and Selvarjan (2004) to make them more appropriate for an accounting context. I also add new items that are relevant to the accounting profession to each dimension. I generate these new items on the basis of a thorough review of the accounting ethics literature. Most of the items I add in this fashion are taken from scenarios that have been used in prior studies. The essential action from the scenario was used, without any of the contextual factors that are usual in scenario research (Cohen et al., 1995b; Cohen et al., 1996; O'Leary and Pangemanan, 2007). Thus, my questionnaire includes items from previous accounting ethical literature, items from Cardy and Selvarjan (2004) and items that are developed in the first phase of the project (see below).

I construct my instrument so each dimension includes items that clearly represent unethical actions, items that clearly represent ethical actions, and item that are ambiguous. I use Taylor's (1975 p. 1) definition of ethics: the "inquiry into the nature and grounds of morality where the term morality is taken to mean moral judgment, standards, and rules of conduct." This definition represents the basis of distinguishing the ethical from the unethical. Ethical items in my questionnaire are included in order to prevent respondents from assuming that all actions are unethical, thus strengthening the sensitivity of the instrument. A mixture between ethical and unethical items camouflages the purposes of my measures and ensures that the respondents are not only trying to show to what extent they are aware of the issue, but of its existence as well. Moreover, ethical items will ensure that the respondents read the questions carefully and provided an accurate response. The unethical and ambiguous questions will be used to measure the level of ethical awareness.

In addition to these considerations, I construct the instrument with attention to balancing the moral intensity of the items. Previous literature provides evidence that Jones (1991) moral intensity factors often load on two main factors: social consensus and magnitude of consequences (e.g., Frey, 2000; O'Fallen and Butterfield, 2005; McMahon and Harvey, 2006; Waldron, 2009). Including all six moral dimensions in my survey instrument would increase the complexity of the instrument and present a risk of confounding the measure of ethical sensitivity. For this reason, I include the two main factors that were supported by the literature (magnitude of consequences and social consensus). I design each question to include a high or low level of either magnitude of consequences or social consensus.

Each dimension within the instrument has a balanced ethical setting. I include some unethical statements, ambiguous statements and some ethical statements. Furthermore, I balanced the use of the intensity factors by making sure that each dimension includes a mixture of MC and SC treatment.

b. Pretest:

The AESS targets accountants' ethical sensitivity. To confirm the relevance of the items to the accounting profession and to investigate the possibility that some important dimension or acts were omitted, 18 (six from each CAs, CMAs and CGAs) accountants who had been identified through personal contacts in the profession reviewed the instrument. The accountants were asked to assess the relevance of the listed issues to the accounting profession and to make any possible suggestions for improvement. This development phase allowed me to assess the external validity of my instrument.

To pretest the internal validity of the AESS and check for anomalies, the AESS was administered to 48 fourth year accounting students. Due to the length of the AESS and the

limited number of observation, each dimension was factor analyzed separately. In this pretest phase, each dimension included six to seven items: two clearly unethical items, two ambiguous items and two ethical items. The ethical items were not included in the factor analysis because the AESS captures accountants' ability to recognize an unethical issue. After eliminating items that failed to load properly, the questions from each dimension loaded on a single factor with a minimum of three questions per dimension. The preliminary factor analysis was used to identify problematic items and to fix them.

B. Hypotheses Related to Content Validity:

Figure 2 summarizes the relationships between ethical sensitivity and the constructs chosen as criterion variables. The relationships between relativism, Machiavellianism and Idealism are established in the previous literature. Anti-Intellectualism is a new construct.

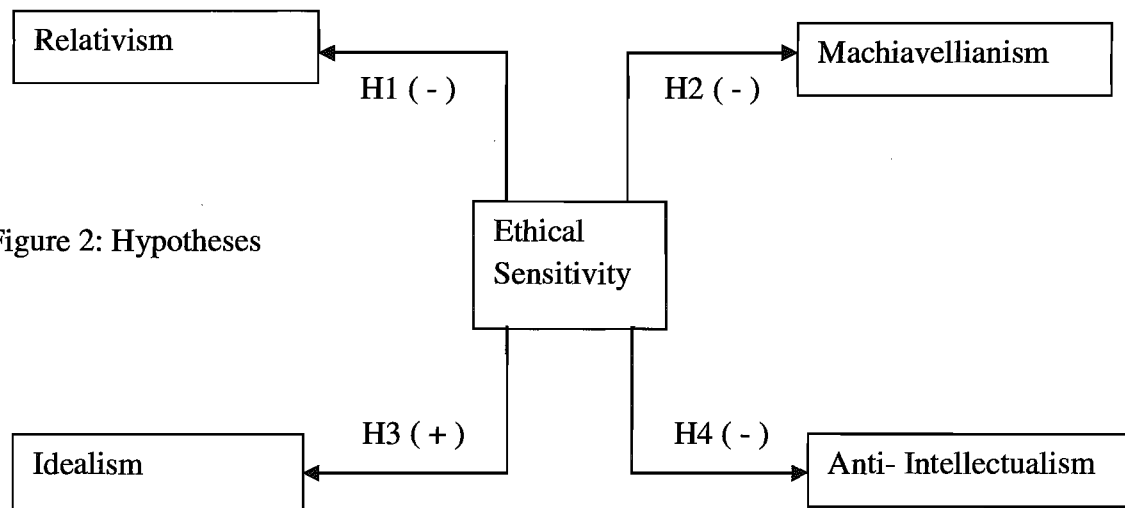


Figure 2: Hypotheses

Relativism:

Relativism defines the extent to which individuals are likely to accept or reject moral absolutes (Forsyth 1980). Highly relativistic individuals are less likely to rely on moral absolutes. Therefore, they do not pay much attention to any set of rules of ethical conduct since they do not believe in their applicability. More precisely, they will limit their knowledge and usage of those rules. This relationship was supported by previous research: highly relativistic individuals score low in ethical awareness (Shaub, 1993; Sparks and Hunt 1998). Based on previous findings, we predict a negative relationship between ethical awareness and relativism.

H1: There is a negative relationship between ethical sensitivity and relativism.

Idealism:

Literature on the relationship between idealism and ethical sensitivity is very limited. Shaub (1993) partially supported a negative relationship. However his results were in the opposite direction from his predictions. Yetmar and Eastman (2000) define idealistic individuals as individuals who believe that harm is always avoidable. Therefore, I argue that highly idealistic individuals are concerned about the amount of harm associated with an action and they will spend more effort assessing an ethical dilemma to avoid any possible harm to others.

H2: There is a positive relationship between ethical sensitivity and idealism.

Machiavellianism:

Previous studies support a negative relationship between Machiavellianism and ethical behavior (Singhapakdi and Vitell, 1990; Jones and Kavanagh, 1996; Rayburn and Rayburn, 1996; Verbeke et al., 1996; Bass et al., 1999). For example, Singhapakdi and Vitell (1990) showed that individuals with low Machiavellianism will consider ethical problems more seriously than individuals with high Machiavellianism. These findings tend to support the assumption that low Machiavellians are willing to spend more effort when facing an ethical

dilemma and therefore have a higher chance of recognizing the presence of an ethical issue. I predict a negative relationship between ethical awareness and Machiavellianism, meaning that individuals with low Machiavellianism will be more aware of an ethical issue than individuals with high Machiavellianism.

H3: There is a negative relationship between ethical awareness and Machiavellianism.

Anti-Intellectualism:

Elias (2008) found that accounting students scored the highest on the anti-intellectualism (AI) scale compared to students with undeclared majors. Further, Elias (2009) showed that individuals with high AI scores are less likely to perceive cheating as unethical. The preference for recipe knowledge over traditional knowledge that would be typical of someone with high AI may have an impact on accountants' behavior in their work place (Elias, 2009). Based on Shaffer's (1981) differentiation between traditional learning and recipe learning, a highly anti-intellectual individual is less likely to question whether an act is ethical and to have a lower level of ethical understanding than individuals with a lower level of anti-intellectualism. These personal characteristics would handicap individuals in recognizing an ethical dilemma. I hypothesize that individuals with high AI are less likely than others to recognize an ethical issue.

H4: There is a negative relationship between AI and ethical sensitivity.

C. Supplemental analysis:

Bernardi (2006) investigated differences in social desirability bias across cultures. In his investigation, he used Hofstede's (1980) cultural dimensions to explore differences in social desirability bias scores reported from 12 countries. Also, he investigated the difference between males and females across cultures. Based on reported gender differences (e.g., Beltramini et al., 1984; Smith and Oakley, 1997), he predicted a difference in social desirability bias. Based on his findings, this difference was not consistent across countries. Countries such as Australia, China,

Ecuador, Ireland, South Africa, Spain and the United States had a significant difference between male's and female's reported social desirability bias, where in countries such as Canada, Hong Kong and Japan the difference was not significant. Based on Bernardi's findings, there are no social desirability bias differences between Canadian males and females.

H5: There is no significant gender difference regarding the social desirability bias between Canadian accountants.

IV. METHODOLOGY:

After the development of the instrument was completed, the revised instrument was tested for reliability, validity, and construct validity.

A. Subjects:

Previous research in accountant's ethical sensitivity was mostly conducted in the United States (Karcher, 1996; Fleischman and Valentine, 2003; Valentine and Fleischman, 2003). Research for Canadian accountants' ethical sensitivity is very limited (Cohen et al., 2001) and did not target all accounting designations. Participants from the three Canadian accounting professional organizations would be the ideal subjects. However, due to difficulties and long timelines to work with these organizations, I use university students in this study¹. The students received class participation credit for completing all of the questionnaires (AESS, EPQ (Forsyth, 1980), M-C-Form C (Reynold, 1982), AI (Eigenberger and Sealander, 2001) and MACH IV (Christie and Geis, 1970)). I recognize that students are not ideal subjects, however; previous research showed that a connection exists between professionals and students (Sims, 1993). In addition, Rest (1993) argues that cognitive moral development does not significantly differ after

¹ – I am working with representatives from all three professional groups to include practicing accountants in a further test of the AESS.

college. Therefore, students seem to be an initially reliable representation of professionals' ethical behavior.

B. Sample:

Students were offered participation credit for completing the questionnaire, which mitigated the possibility of a self-selection bias in the data. I received 218 completed surveys. Some of the surveys had missing observations (some students skipped or overlooked a question or two). Due to the low number of observations and the exploratory nature of this study, I did not exclude these observations from the sample. I replaced missing observations with a neutral response as an unbiased observation.

Table 6 below reports the demographics of my final sample.

Table 6: Descriptive Statistics

	N	Percent	Min Age	Max Age	Avg Age	Std Deviation
Female	100	45.9	18	29	21.91	2.543
Male	118	54.1	18	48	22.01	4.76

C. Control for Social Desirability:

The inclusion of a social desirability measure in ethics research is supported in the literature (Fernandes and Randall, 1992). Recent research (Wakefield, 2008) in accounting concluded that professional accountants are characterized by a low level of Machiavellianism. In addition, Jones and Kavanagh (1996) found a strong negative correlation between Machiavellianism and social desirability. Thus, it is possible that responses from accountants, more than those from other groups, will suffer from social desirability response bias. Several other accounting studies in ethical sensitivity controlled for the social desirability bias (e.g., Cohen et al. 1996; Yetmar and Eastman 2000).

Social desirability can be measured directly by administering a Social Desirability Scale or indirectly by measuring the “Halo Effect”. The “Halo Effect” is measured by calculating the difference between what the individual reports he would do and what he believes his peers would do. For example, after reading a scenario with an ethical dilemma, researchers ask the respondents to rate on 7-point likert scale their subjective probability of committing the same act. Then, the respondent is asked the probability that one of their peers would engage in this activity based on the same 7-point Likert scale. The difference between the two scores is known as the “Halo Effect”. Tyson (1990) found that respondents always reported themselves as more ethical than their peers. Research in accountant ethical sensitivity (e.g., Cohen et al. 1996) uses the “Halo Effect” as a measure of social desirability. The use of this technique rather than a direct measure of social desirability response bias allows researchers to reduce the number of questions in the survey instrument to avoid issues related to the time required for respondents to complete the questionnaire.

Geiger and O’Connell (2000) explored the relationship between the indirect and direct measure of social desirability. Their study showed a weak positive relationship between the “Halo Effect” and the impression management scale (the direct measure). They administered 10 ethical scenarios with a social desirability measure to 378 accounting students in the U.S. and Australia. They regressed the social desirability measure on the “Halo Effect” measure and found a significantly positive relationship between the two measures. However, the direct measure explained only about 3% of the variation in the “Halo Effect”, indicating that factors other than social desirability may be impacting how participants respond to the “Halo Effect” measure. Furthermore, the direct measure of social desirability explained 12.8 % and 17.2 % of the self-reported behavioral intentions (the probability the respondents would commit the same action in

similar situation). Based on these results, the authors recommended the use of a direct measure of social desirability in accounting research. One implication of these findings is that “the reliability of findings in these sensitive areas of research that do not control for this bias, or rely on a surrogate to measure it, are likely to be questioned” (Geiger and O’Connell, 2000 p.118). For that reason, it was considered necessary to use a direct measure to control for social desirability response bias in this study.

I used Reynold’s [1982] M-C Form C scale to measure social desirability response bias. The M-C-Form C scale is a shorter version of the Crowne and Marlowe (1960) Social Desirability Scale (M-CSDS). The M-CSDS is a 33-item true and false questionnaire. Due to its length, many studies have tried to provide a shorter version of the M-CSDS without diluting its reliability (Strahan and Gerbasi, 1972; Reynolds, 1982). Strahan and Gerbasi (1972) used a principle component analysis (excluded items with low loadings) and created three new versions of the M-CSDS: the M-C 1(10) that included 10 items, the M-C 2(10) that included 10 items and the M-C (20) that included 20 items. All of the short versions provided a satisfactory internal reliability with the M-C (20) having the highest internal reliability. Reynolds (1982) used a principle factor analysis and created three new forms: the M-C Form A (11 items), M-C Form B (12 items), and M-C Form C (13 items). He compared these new forms with the previous forms created by Strahan and Gerbasi (1972). Based on his analysis, Strahan and Gerbasi’s (1972) M-C (20) had the highest internal reliability followed by his M-C Form C.

The M-C Form C instrument has been used in the ethics literature (e.g., Latif, 2000) and represents an effective way to reduce the length of the survey without diluting its reliability. For the purpose of my study, I chose the M-C Form C for its efficiency as well as good reliability Reynolds (1982).

V. RESULTS:

A. Internal Validity:

Internal validity consists of the measure of internal reliability coefficients. For this purpose, I used the Cronbach Alpha measure. These coefficients will be calculated for each dimension. Ideally, to show that the instrument does not suffer from internal consistency issues, each dimension should have an internal reliability coefficient greater than .7. Table 7 reports the results from my internal reliability analysis (Cronbach Alpha) and shows that only Use of Firm Assets ($\alpha = .738$) and Offering Bribery ($\alpha = .715$) have an internal reliability over the ideal cutoff of .7. Deception ($\alpha = .638$), Accepting Bribery ($\alpha = .622$), Independence ($\alpha = .641$) and Ethical Dealing with Co-Workers ($\alpha = .572$) do not reach the ideal cutoff. However, the AEES is at the exploratory phase and therefore we consider that the instrument does not suffer from serious internal consistency issues, although this analysis does indicate that further revisions would be advisable. In addition, the AEES as a whole has a 0.736 internal reliability, which indicates sound internal consistency of the instrument. Thus, I can conclude that the instrument has adequate internal validity.

B. Construct Validity:

I ran a varimax factor analysis including all of the items but the ethical statements. The factor analysis results are used to generate a set of ethical dimensions. Based on my predictions, the questionnaire should generate seven dimensions. Results from the factor analysis will help me to screen out questions that do not load parsimoniously and to refine the original questionnaire to a shorter questionnaire. The instrument resulting from my factor analysis will also be used to generate the ethical sensitivity score. I will only use the questions that load parsimoniously in the factor analysis to create the score.

The final results from my factor analysis (Table 7) generate a set of eighteen questions loading on six dimensions. The number of dimensions is lower than my original expectations. It is possible that the students did not perceive some items as different from each other. For example, results from the factor analysis show that students grouped the padding expense accounts and personal use together. This result is not surprising, since the padding expense accounts activities in the questionnaire were for self-interest. Therefore, I rename this dimension Personal Use of Firm Assets. One of the falsification questions was perceived as deception. The remaining falsification questions did not load parsimoniously and for this reason the falsification dimension was excluded. Finally, the bribery dimension loaded on two independent factors. The bribery questions included situations in which the accountant gave bribes and received bribes, which is a likely explanation for the two bribery factors. For this reason, I divided my original bribery dimension into two bribery dimensions: Accepting Bribes and Offering Bribes. After this analysis, my instrument contains the following six dimensions: Personal Use of Firm Assets, Deception, Accepting Bribes, Independence, Ethical dealing with Co-workers and Offering Bribes.

Table 7 reports the internal reliability coefficient (Cronbach alpha) for each dimension and the factor loadings. Each dimension had a minimum of two questions. Some questions were excluded because they loaded on a different factor or had a low factor loading ($< .5$). The internal reliability coefficients ($\Rightarrow .600$) are satisfactory for exploratory research (Bagozzi, 1994; Cohen et al., 2003).

Table 7: Reliability and factor analysis:

Dimensions	Factor Loadings
<i>Use of Firm Assets ($\alpha = .738$):</i>	
An accountant made a few personal long distance calls using the firm's telephone.	.754
An accountant sometimes used the firm's printer for personal needs.	.820
An accountant slightly overstated the amount spent on taxi fares, car mileage, tips and the like on a business trip.	.696
On a business trip an accountant bought an expensive meal for a friend and turned the receipt in with his other travel expenses.	.621
<i>Deception ($\alpha = .638$):</i>	
An accountant, as he/she has been cautioned against doing, occasionally failed to complete an assigned task because no one else would know (e.g. in a sample of 50 accounts, he/she could not find the last account but checked it off knowing that no one would notice).	.817
An accountant saw one of his/her colleagues taking a laptop computer from the shipping container before it had been recorded as received and did not report him (knowing that nobody else would notice it).	.736
An accountant reduced the size of miscellaneous expense account by an immaterial amount as a favor for a client.	.580
<i>Accepting Bribery ($\alpha = .622$):</i>	
An accountant, after checking with his/her superior, he/she accepted a sample of products worth about \$500 offered by one of his clients to ease future transactions.	.692
An accountant accepted a \$5 gift from a colleague for a favor at work.	.689
An accountant was the only member of his/her firm to use an unusually high discount offered by the client on a personal purchase as a compensation for some favors.	.742
<i>Independence ($\alpha = .641$):</i>	
Unlike most of his/her colleagues, an accountant did not mention that he/she lives in the same neighborhood with one of the clients to which he/she was assigned.	.640
An accountant plays five times a week on the same soccer team as one of the clients he is assigned to.	.858
Although most of his/her colleagues do not, an accountant regularly eats out with one of the clients he is assigned to.	.759
<i>Ethical Dealing With Co-Workers ($\alpha = .572$):</i>	
An accountant spread an unverified rumor that someone's work was below standard and so inadequate as to endanger the firm's relationship with the client.	.607
An accountant, as often happens in the workplace, yelled at a colleague in front of everyone.	.689
An accountant discretely made racist remarks about co-workers.	.779
<i>Offering Bribery ($\alpha = .715$):</i>	
An accountant obtained a significant service contract worth \$15,000 because he/she gave \$ 1,000 to one of the client's employees.	.739
An accountant verbally authorized small cash payments to a local government official in a foreign country to facilitate business transactions.	.836

C. Content Validity:

Hypotheses Testing:

An instrument with an acceptable internal reliability does not necessarily measure what it is intended to measure. As discussed above, a good coefficient for internal validity would demonstrate that the instrument is a good measure for what it is measuring. However, it may be measuring something other than ethical sensitivity. To test for content validity, the instrument has to behave in a similar manner as previously established constructs interact with specific variables. Research on individual variables that have an impact on ethical sensitivity is very limited. Nevertheless, previous literature provides strong support for the relationship between Machiavellianism (there is a negative relationship between ethical sensitivity and Machiavellianism), relativism (there is a negative relationship between relativism and ethical sensitivity) and ethical sensitivity. For this reason, I used Machiavellianism, relativism and idealism to test the AESS's content validity. If the instrument has the predicted relationships with these variables, I may conclude that the instrument has a reliable content validity.

To provide support for the instrument's content validity, I use the model shown below

Model:

$$AESSW_i = \beta_0 + \beta_1 Age_i + \beta_2 Gender_i + \beta_3 SDB_i + \beta_4 AI_i + \beta_5 Mach_i + \beta_6 Relativism_i + \beta_7 Idealism_i + \varepsilon_i$$

Prior to conducting this analysis, I run an internal reliability measure for SDB, AI, MACH IV, Relativism and Idealism. Table 8 below reports the internal reliability of the AESS as whole and the criterion instruments:

Table 8: Internal Reliabilities

Survey	Internal Validity
AESS	0.860
Relativism	0.805
Idealism	0.829
MACH IV	0.554
Anti-intellectualism	0.841
MC-From C scale	0.558

Except for the MACH IV and the M-C Form C scale, the instruments had a satisfactory internal reliability coefficient ($\Rightarrow .700$). Ideally, a good internal reliability would have a coefficient above .7 (Nunnally, 1978). The MACH IV and the M-C Form C are well established instruments, and, therefore, their weaker internal reliability is not a cause for concern in this study. Previous studies reported similar internal reliability coefficients for the Machiavellianism measure (e.g. Rawwas et al., 1994, reported an internal reliability coefficient of .570).

After testing for the independent variable's internal consistency, I ran the model shown above. Table 9 below reports the results from this analysis.

Table 9: Regression Analysis

	Unstandardized Coefficients		Standardized Coefficient	Exp Sign	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
(Constant)	36.511	9.654			3.782	0.000		
Age	0.219	0.157	0.093	(-)	1.391	0.166	0.853	1.173
Gender M = 1	2.839	1.151	0.155	(+)	2.467	0.014	0.967	1.034
SDSCORE	0.051	0.232	0.014		0.220	0.826	0.904	1.106
AISCORE	0.101	0.037	0.195	(+)	2.698	0.008	0.724	1.381
MACH	-0.102	0.060	-0.127	(+)	-1.703	0.090	0.684	1.462
Relativism	0.196	0.050	0.259	(+)	3.902	0.000	0.858	1.165
Idealism	-0.059	0.053	-0.075	(-)	-1.098	0.274	0.813	1.230

The AESS is a 7 - point likert scale that varies from strongly unethical to strongly ethical. Thus, the lower the AESS scores, the higher the ethical sensitivity. The overall ethical sensitivity score is the sum of the eighteen items generated by the factor analysis.

I control for age, gender and the social desirability bias. I also control for age and gender, as these variables have been found to be significant on prior studies of accounting ethical decision making (e.g., Karcher, 1996; Ameen et al., 1996). Gender is a dichotomous variables (male = 1 and female = 0).

My results (reported in Table 9) support previous findings in the literature (e.g., Ameen et al., 1996) and provide evidence that females are more ethically sensitive than males ($p = .014$). Interestingly, I don't find a significant relationship between age and AESS. This may be due to a lack of variance in that variable, since most of the subjects are around the same age.

My results show a marginally significant ($.090$) positive relationship between Machiavellianism and AESS. I also find a significant negative relationship between Relativism and AESS ($p = .000$) and a non-significant relationship between Idealism and AESS ($p = .274$). I also find a significant negative relationship between Anti-Intellectualism and AESS ($p = .008$). Since the criterion variables relate in the predicted manner to the AESS, I can conclude that content validity has been established.

D. Social Desirability Analysis:

I use an ANOVA to investigate the difference between male and female social desirability bias. As shown in table 10, my findings contrast with Bernardi's (2006) findings. I found a partially significant difference between male and female's social desirability bias. In this sample, men were more likely to evidence social desirability response bias than women.

Table 10: Social Desirability Response Bias

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	29.505	1	29.505	4.578	0.034
Within Groups	1392.22	216	6.445		
Total	1421.725	217			

E. Further Analysis:

I extended my analysis by exploring the relationship between each of the AESS dimensions and the independent variables used previously (age, gender, social desirability, anti-intellectualism, Machiavellianism, relativism and idealism). I calculated the factor scores of each dimension and analyzed the relationship with the independent variables. Table 11 summarizes the significance levels for each independent variable in the six regressions.

Table 11: Individual Regressions

	Age	Gender	SD	AI	MACH	Relativism	Idealism
AESS	0.166	0.014	0.826	0.008	0.090	0.000	0.274
Ethical Dealing with Co-Workers	0.026	0.619	0.174	0.003	0.367	0.132	0.034
Personal Use of Firm Assets	0.875	0.345	0.847	0.171	0.081	0.010	0.155
Deception	0.023	0.807	0.546	0.105	0.061	0.514	0.013
Accepting Bribes	0.817	0.001	0.674	0.570	0.304	0.030	0.268
Independence	0.998	0.003	0.797	0.995	0.843	0.018	0.395
Offering Bribes	0.953	0.780	0.543	0.002	0.462	0.001	0.580

Results show inconsistencies between the dimensions. My initial final result showed that the AEISS had relationships with Gender, Anti-intellectualism, Machiavellianism and Relativism. The table above shows that, while analyzing the dimensions separately, each dimension had a different set of relationships. The Social Desirability variables did not have any significant relationship with any of the dimensions. This result does not represent an issue because I uniquely used the social desirability variable to control for the social desirability bias.

F. Post Hoc Analysis:

For exploratory purposes, I investigate the contribution of the moral intensity component to the AEISS. I create two new variables called HIGHMI (High Moral Intensity) and LOWMI (Low Moral Intensity). HIGHMI (LOWMI) consists of the sum of the questions with high moral intensity (Low Moral Intensity). The questions with the ethical statements were excluded and analyzed separately. Table 12 shows the results from the paired t-test.

Table 12: Paired t-test for unethical items with high and low moral intensity

Mean	Std. Deviation	Std. Error Mean	Interval of the		T	df	Sig. (2-tailed)
			Lower	Upper			
-2.65899	5.73277	0.38917	-3.42603	-1.89194	-6.833	216	0.000

The results show a significant difference between the questions with high moral intensity treatment and the questions with low moral intensity treatment.

I replicated the analysis applied above with the ethical questions. I created two new variables: EHIGHMI (Ethical High Moral Intensity) and ELOWMI (Ethical Low Moral Intensity). Table 13 shows the results from the paired t-test.

Table 13: Paired t-test for ethical items with high and low moral intensity

Mean	Std. Deviation	Std. Error Mean	Interval of the		T	df	Sig. (2-tailed)
			Lower	Upper			
-7.39908	4.63620	0.31400	-8.01797	-6.78020	-23.564	217	0.000

The results show a significant difference between the ethical questions with high and low moral intensity. These two tests together provide strong evidence that moral intensity impacted the responses of the participants.

VI. DISCUSSION:

Currently, the literature does not have an unbiased measure to determine ethical sensitivity. The AESS is the first instrument that takes into consideration the weaknesses faced by earlier instruments in previous research, such as: the absence of a control for social desirability bias, the lack of moral intensity elements, the homogeneous structure of the instruments, the scarcity of dimensions and vignettes and a lack of generalizability. The instrument represents a new way of assessing accountants' ability to assess an ethical dilemma. Most of the previous attempts to measure ethical sensitivity do not generate an overall score of ethical sensitivity. The AESS generates an overall score that can be used to investigate its relationship with other variables.

The AESS includes six dimensions: Personal Use of Firm Assets, Deception, Accepting Bribes, Independence, Ethical dealing with co-workers and Offering Bribes. The instrument adopts some questions used in earlier accounting studies (Cohen et al., 1995 b; Cohen et al., 1996; O'Leary and Pangemanan, 2007) and classifies them into one of the six dimensions. My results provide initial support for the use of these dimensions to measure accountants' ethical sensitivity.

I predicted that highly relativistic individuals would not pay attention to the imposed rules and would focus more on the relativistic aspect of an ethical situation rather than its compliance to the available code of ethics. The regression analysis results show a significant positive coefficient ($p = .000$) for relativism. This result supports my third hypothesis and

provides evidence that highly relativistic individuals are less sensitive to ethical issues than individuals with lower relativism. Results from individual regressions for each dimension indicate that this positive relationship is supported in four out of the six dimensions: Personal Use of Firm Assets, Accepting Bribes, Independence and Offering Bribes. Only Ethical Dealing with Co- Workers and Deception did not have a significant relationship with relativism. .

I also predicted that individuals who are highly idealistic will spend significant efforts to make sure that their actions will not cause harm to others. This effort is expressed through a higher level of ethical sensitivity. The results failed to support the relationship between Idealism and AEISS. However, the individual regression analyses provide some evidence that some dimensions of the AEISS had a significant relationship with idealism. More precisely, I find a significant relationship between idealism and Ethical Dealing with Co-Workers ($p = .034$) and deception ($p = .013$). Therefore, I partially support my fourth hypothesis. It is perhaps important that the results with respect to idealism and relativism are mirrors of each other.

I also predicted that low Machiavellians are willing to spend more effort when facing an ethical dilemma and therefore they would be more aware of an ethical issue than individuals with high Machiavellianism. My results show a marginally significant ($p = .090$) positive relationship between Machiavellianism and AEISS. This finding is contrary to my second hypothesis. However, as mentioned previously, research in ethical sensitivity is very limited and most of our expectations are drawn from relationships established in the other three steps of Rest' (1986) ethical decision making model. As argued by Rest (1986) each step of the ethical decision making process is independent. Previous literature provides support for a negative relationship between Machiavellianism and ethical judgment (e.g. Rayburn and Rayburn, 1996). The positive relationship between Machiavellianism and ethical sensitivity supports the idea that Rests'

(1986) steps are independent and do not necessarily share the same relationships with other individual difference variables.

My findings imply that high Machiavellian individuals have a higher ethical sensitivity than low Machiavellian individuals. Based on previous findings and these findings, it seems reasonable to conclude that individuals with high Machiavellianism are more likely to recognize an unethical issue than individuals with lower Machiavellianism. However, even though they recognize the possibility of an unethical dilemma, they chose to behave unethically. Results from the individual regressions indicate that this finding is limited to two dimensions of the AEISS: Personal Use of Firms Assets ($p = .081$) and Deception ($p = .061$).

I also predicted that individuals with high AI are less likely to recognize an unethical issue than individuals with low AI. My results support my first hypothesis and show a significant ($p = .008$) negative relationship between Anti-intellectualism and Ethical Sensitivity. This result supports Elias' (2009) findings. We might propose that students in the Elias (2009) study did not perceive cheating as unethical because they were not able to recognize that cheating as an ethical issue. The results from the individual regressions are significant for two dimensions of the AEISS: Ethical dealing with Co-Workers ($p = .003$) and Offering Bribes ($p = .002$).

The significant difference between the questions with high and low moral intensity supports including this factor in the AEISS instrument. This result provides evidence that respondents paid attention to the moral intensity component while detecting the presence of an unethical or ethical issue.

My results with respect to content validity are promising and partially support the AEISS's content validity. The AEISS interacts as predicted with one out of the three previously

identified constructs. Findings related to Machiavellianism are not surprising and need to be tested further in future research. The negative relationship between anti-intellectualism and ethical sensitivity is supported ($p = .008$). Previous literature (Elias, 2009; Shaffer, 1981) found that highly anti-intellectual students are less likely to perceive cheating as unethical. From these results, I can infer that students with high anti-intellectualism do not spend enough effort while assessing an ethical dilemma. Even though previous findings from the ethical sensitivity literature did not investigate the relationship between AI and AEISS, it strengthens my support for the AEISS content validity.

Identifying the level of ethical sensitivity is a critical step for the accounting profession and research into accounting ethical decision making. In the recent years, the accounting profession's ethical conduct has been criticized due to scandals such as Enron and WorldCom. Defining the accountants' ability to identify an ethical issue is critical and may help improve the ethical awareness training in the accounting work place. However, it is important to know that high ethical sensitivity does not always lead to a more ethical behavior. It only describes the individuals' potential to detect the presence of an ethical dilemma but does not guarantee that individual will be reluctant to commit an unethical behavior simply because they perceived it. Each step of the ethical decision making process is independent and does not lead, by itself, to an ethical behavior. Nevertheless, having high ethical sensitivity will help the accountants to detect the ethical dilemma and move to the second step in the ethical decision process.

VII. LIMITATIONS:

Like most of the previously reported studies, my study suffers from certain limitations. Two constructs had low internal validity coefficients. Machiavellianism had an internal reliability of ($\alpha = 0.554$) and the Social Desirability Measure ($\alpha = 0.558$). These instruments have

been extensively used in previous literature and are well established. The low coefficients might reflect the characteristics of the subject pool. The sample nature represents a limitation, as well. Even though many of the previously reported studies used students as subjects, accounting professionals are exposed to a higher level of professional experience and obtaining data from them will better represent accountants' ethical sensitivity.

Another limitation is the use of the words ethical and unethical to anchor the instrument. The use of these words may have alerted the subject to the purpose of the study. However, I am not aware of any way to avoid this problem and no one in the pre-test group mentioned it. Further, while the respondents clearly understood the interest in ethics, it seems doubtful they are familiar with the construct of ethical sensitivity.

Finally, findings from previous literature are limited and inconsistent. This study is exploratory in nature. It introduces a new framework for assessing ethical sensitivity and takes the first steps in validating a measurement instrument. As such, it is subject to the uncertainties of this type of research and accordingly, needs ongoing development.

VIII. FOR FUTURE RESEARCH:

This paper represents an initiative to develop an instrument to measure accountant's ethical sensitivity. As mentioned in the limitations section, this study suffers from some limitations. Future research which focuses on the identified limitations will strengthen the proposed instrument and advance research in this area. For example, Individual items could be modified to improve the factor structure and therefore obtaining stronger construct validity. Repeating the analysis using a sample of practitioners rather than students would improve the external validity.

Previous literature shows that students develop a certain set of skills such as problem solving and critical thinking during their academic career. It will be interesting to investigate whether accounting students' ethical sensitivity increases throughout their academic program. Moreover, the ethical sensitivity literature lacks findings regarding the relationship between ethical sensitivity and personality traits such as tolerance for ambiguity, and locus of control. Furthermore, the literature lacks cross cultural investigations as well. The variation of ethical sensitivity across cultures is has not been studied. I argue that the AESS may vary across cultures due to individual differences caused by culture. Future research to validate the AESS should include cross-cultural comparisons.

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X. APPENDIX:

A. Appendix 1: AESS²

		Strongly Unethical	Moderately Unethical	Slightly Unethical	Neutral	Slightly Ethical	Moderately Ethical	Strongly Ethical
1	An accountant obtained a significant service contract worth \$15,000 because he/she gave \$ 1,000 to one of the client's employees.	1	2	3	4	5	6	7
2	An accountant verbally authorized small cash payments to a local government official in a foreign country to facilitate business transactions.	1	2	3	4	5	6	7
3	An accountant refused free movie tickets offered by a client as a payback for a favor.	1	2	3	4	5	6	7
4	An accountant, after checking with his/her superior, he/she accepted a sample of products worth about \$500 offered by one of his clients to ease future transactions.	1	2	3	4	5	6	7
5	An accountant accepted a \$5 gift from a colleague for a favor at work.	1	2	3	4	5	6	7
6	An accountant was the only member of his/her firm to use an unusually high discount offered by the client on a personal purchase as a compensation for some favors.	1	2	3	4	5	6	7
7	An external accountant recommended to a bank loan officer that the bank extend a loan to his/her best friend's company knowing that the company would clearly fail to meet the standard criteria for a loan.	1	2	3	4	5	6	7
8	Unlike most of his/her colleagues, An accountant asked to be removed from an assignment with a company that fired one of his/her family members in recessionary times.	1	2	3	4	5	6	7

² Items 1,3,5,6,15,18,28,32,33,34,36,40,41,42 and 44 were adapted from Cardy and Selvarjan (2004).

Items 2, 7, 19, 20 and 43 were adapted from Cohen et al. (1996).

Items 17, 21 and 22 were adapted from O'Leary and Pangemanan (2007).

Item 14 was adapted from Cohen et al. (1995b).

		Strongly Unethical	Moderately Unethical	Slightly Unethical	Neutral	Slightly Ethical	Moderately Ethical	Strongly Ethical
9	An accountant requested not to be assigned to a project involving a company which frequently does business with his/her brother's firm.	1	2	3	4	5	6	7
10	Unlike most of his/her colleagues, an accountant did not mention that he/she lives in the same neighborhood with one of the clients to which he/she was assigned.	1	2	3	4	5	6	7
11	An accountant plays five times a week on the same soccer team as one of the clients he is assigned to.	1	2	3	4	5	6	7
12	Although most of his/her colleagues do not, an accountant regularly eats out with one of the clients he is assigned to.	1	2	3	4	5	6	7
13	As his friends in the business have often done, an accountant represented both the buyer and seller in the sale of a business. Neither party was informed.	1	2	3	4	5	6	7
14	An accountant's firm has recently acquired a new client with a very low bid. Contrary to the accountant's estimate of 150 hours, the boss suggested 100 hours for one portion of the project. The Accountant accepted this suggestion and therefore decided to perform fewer procedures knowing there would be an important impact on the outcome of the engagement.	1	2	3	4	5	6	7
15	An accountant, after finding that a service of slightly inferior quality had been performed by another person on his/her team, promptly informed the client and spent more hours fixing it (knowing that the client would not notice the difference).	1	2	3	4	5	6	7
16	An accountant, as he/she has been cautioned against doing, occasionally failed to complete an assigned task because no one else would know (e.g. in a sample of 50 accounts, he/she could not find the last account but checked it off knowing that no one would notice).	1	2	3	4	5	6	7
17	An accountant saw one of his/her colleagues taking a laptop computer from the shipping container before it had been recorded as received and did not report him (knowing that nobody else would notice it).	1	2	3	4	5	6	7

		Strongly Unethical	Moderately Unethical	Slightly Unethical	Neutral	Slightly Ethical	Moderately Ethical	Strongly Ethical
18	An accountant had discussions with a wealthy client who needed professional advice for what he thought was a severe problem. The accountant realized that the client had a minor problem, and as advised by his/her colleagues, charged the client a very reasonable fee.	1	2	3	4	5	6	7
19	An accountant copied a software package from one of the firm's clients instead of buying it and told everyone that he bought it, knowing that many of his/her colleagues have done the same.	1	2	3	4	5	6	7
20	An accountant, in recessionary times, manipulated significant estimates for bad debts in order to increase reported income.	1	2	3	4	5	6	7
21	An accountant, unlike most of his colleagues, changed his accounting credential on his resume in order to get a desirable assignment.	1	2	3	4	5	6	7
22	An accountant altered some line items on the financial statements to help one of the firm's clients obtain a loan. He knows that others would not be willing to do this.	1	2	3	4	5	6	7
23	An accountant, contrary to common practice, reported the exact number of work hours he/she actually worked	1	2	3	4	5	6	7
24	An accountant informed his/her superior that he/she made significant progress with an assigned task when he/she was actually still far from done. He/she was planning to work on it overnight and get the work done before seeing his/her superior the next day.	1	2	3	4	5	6	7
25	An accountant reduced the size of miscellaneous expense account by an immaterial amount as a favor for a client.	1	2	3	4	5	6	7
26	An accountant stated that the services he/she provided were much superior to one of his colleagues.	1	2	3	4	5	6	7
27	An accountant spread an unverified rumor that someone's work was below standard and so inadequate as to endanger the firm's relationship with the client.	1	2	3	4	5	6	7

		Strongly Unethical	Moderately Unethical	Slightly Unethical	Neutral	Slightly Ethical	Moderately Ethical	Strongly Ethical
28	An accountant set the record straight when his/her superior mistakenly believed that the accountant deserved a significant bonus for landing a major new customer.	1	2	3	4	5	6	7
29	An accountant sometimes engaged in a little interpersonal gossip with coworkers.	1	2	3	4	5	6	7
30	An accountant, as often happens in the workplace, yelled at a colleague in front of everyone.	1	2	3	4	5	6	7
31	An accountant, in spite of opposition from colleagues always made sure in meetings to allow everyone to voice his/her opinion.	1	2	3	4	5	6	7
32	An accountant discretely made racist remarks about co-workers.	1	2	3	4	5	6	7
33	An accountant made a few personal long distance calls using the firm's telephone.	1	2	3	4	5	6	7
34	An accountant, like most colleagues, took home small items meant to be used for advertising.	1	2	3	4	5	6	7
35	An accountant sometimes used the firm's printer for personal needs.	1	2	3	4	5	6	7
36	An accountant, when using the company phone for making personal long distance calls, promptly informed the company so that it could be charged to his/her personal account.	1	2	3	4	5	6	7
37	An accountant, like most colleagues, used the company's software to do personal taxes for family and friends (the firm did not have any policy regarding the matter).	1	2	3	4	5	6	7
38	An accountant, when using reams of paper for personal use, promptly informed the company so that it could be charged to his/her personal account.	1	2	3	4	5	6	7
39	On a business trip an accountant bought an expensive meal for a friend and turned the receipt in with his other travel expenses.	1	2	3	4	5	6	7

		Strongly Unethical	Moderately Unethical	Slightly Unethical	Neutral	Slightly Ethical	Moderately Ethical	Strongly Ethical
40	An accountant incurred \$ 1000 in expenses on business travel and reported \$ 2000.	1	2	3	4	5	6	7
41	An accountant, like most colleagues, spent travel and lodging money carefully.	1	2	3	4	5	6	7
42	An accountant slightly overstated the amount spent on taxi fares, car mileage, tips and the like on a business trip.	1	2	3	4	5	6	7
43	An accountant charged the company for personal expenses (e.g. fifty dollars for family gifts) while traveling on business.	1	2	3	4	5	6	7
44	An accountant, on a business trip, reported a thirty dollar cab ride when he/she actually walked.	1	2	3	4	5	6	7